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Youth Perceptions of Nature
A Case Study of “Matric EnWild” Nature Immersion Camp

[Danielstar / Okeyo / OKYDAN002]

A [minor] dissertation submitted in [*partial*] fulfillment of the requirements for the
award of the degree of Master of Social Science

Faculty of the Humanities
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Youth Perceptions of Nature
A Case Study of “Matric EnWild” Nature Immersion Camp

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ABSTRACT

A study was conducted to understand youth perceptions of nature. Such perceptions determine youth attitudes and behaviours towards nature. Making sense of these attitudes and behaviours towards nature, there can be valuable insights generated towards the implications that such perceptions may have for societal development in a country. 20 Youth participants were selected for the study. All participants selected were part of a diversely represented nature immersion programme in South Africa. The programme purposely keeps a balance of gender (binary), class and race for those that attend every year. Data was gathered from students using qualitative interview and questionnaire survey. This data was then analysed based on existing theory and literature. The overall insights that emerged from the study were that literature shows that there are five recurring influential social factors that influence youth perception of nature, Two theories; Human Exceptionalism Paradigm and New Ecological Paradigm, can be used to better understand what youth attitudes and behaviours towards nature (that stems from their perception) means to eco-social development of a country. Theory was also used to explain that there is indeed a greater understanding of the importance of nature amongst South African youth, and the need for its protection for survival. This is very crucial for South Africa's development and eco-political landscape as the youth are the future of a country and their practices in future will determine the direction of society.

LIST OF TABLES

Table 1. Categories for Data Analysis	31
Table 2. Data Analysis Process	32
Table 3. Themes based on influencing categories	33
Table 4. Themes based on theoretical frameworks	34
Table 5. Profile of respondents interviewed in the research study	39

Table of Contents

ACKNOWLEDGMENT	ii
ABSTRACT.....	iii
LIST OF TABLES	iv
CHAPTER ONE: INTRODUCTION	4
1. Introduction	4
1.1 Rationale and significance of the Research	5
1.2 Study objectives	7
1.3 Theoretical Framework	8
CHAPTER TWO: LITERATURE REVIEW	10
2. Introduction	10
2.1 Factors that influence youth perception of nature	10
2.1.1 Perceptions of nature: a matter of access and location.	12
2.1.2 Perceptions of nature: a matter of gender and culture.	14
2.1.3 Perceptions of nature: a matter of perceived risk.	17
2.1.4 Perceptions of nature: a matter of education and upbringing	18
2.1.5 Perceptions of nature: a matter of nuance	20
2.1.6 Collectivist perspective: humans connected to nature	22
2.1.7 Individualistic perspective: humans apart from nature	24
2.2 Conclusion	25
CHAPTER THREE: METHODOLOGY OF STUDY.....	27
3. Introduction	27
3.1 In-depth understanding of perception	27
3.2 Case study	28
3.3 Sampling	29
3.3.1 Sampling criteria	29
3.4 Data Collection	30
3.5 Data Analysis	30
3.6 Interpreting findings: An outline of themes	33
3.7 Reliability	36
3.8 Limitations	36
3.9 Ethical Considerations	38
3.10 Summary	39
CHAPTER FOUR: FINDINGS AND DISCUSSION	40

4. Introduction	40
4.1 Diversity in youth perceptions of nature	40
4.1.1. Respondent profiles	41
4.2 Findings and Discussion	42
4.2.1 Perceptions of nature as influenced by access and geographic location	42
4.3.2. Perception of nature as influences by culture and gender	46
4.3.3. Perceptions of nature as influenced by perceived risk safety and well-being.	50
4.3.4 Perceptions of nature as influenced by education and upbringing	54
4.3.5. Perceptions of Nature a matter of nuance	59
4.3.6. Making sense of perceptions: Theoretical outlook: Human Exceptionalism Paradigm and New Ecological Paradigm	61
4.4 Summary	65
CHAPTER FIVE: YOUTH CARE ABOUT NATURE: CONCLUSIONS TO THE STUDY	66
5. Introduction	66
5.1 How youth truly feel about nature	66
5.1.1 Factors that influence nature	67
5.1.2 Youth perceptions of nature	70
5.1.3 What youth perceptions of nature mean to society	71
5.2 Conclusion	72
REFERENCE.....	73
APENDIX	77

CHAPTER ONE: INTRODUCTION

1. Introduction

Young people interact with nature in a variety of ways. In fact, it is universally acknowledged that nature is one of the factors that aids in young people's development, the other factor being nurture (Kahn & Kellert, 2002). As part of their upbringing, children may experience nature in different ways. For those living in an urban context, they are likely to encounter nature when they play in parks, on fields, and during school sports and education programmes. School educational programmes where, for example, children take part in a variety of activities, adventures, and challenges outdoors, are important for encouraging opportunities for combining elements of practical education (through direct contact with what you are learning about) with the psychological benefits associated with learning outdoors (Ford, 1989). For children brought up in a more rural context, they may be surrounded by nature and interact with it much more readily, for example, during traditional ceremonies and celebrations. Within the African context, many traditional ceremonies such as traditional rites of passage, rituals, festive events and social ceremonies occur within a natural environment mostly because natural resources are required for such practices (Ich.UNESCO.org, n.d). One example of a ritual that occurs in a natural environment is initiation of young boys into manhood such as in the Xhosa culture. As a rite of passage into adulthood, men must go for circumcision, that takes place in a natural environment (Ampim, 2003). Similarly, in the Swazi culture, women may go through a traditional reed dance ceremony as a rite of passage, that also takes place in a natural environment (EPA, 2016).

It is evident that the youth encounter nature for a variety of reasons, depending on whether they reside in a more urban or rural context. However, studies on this topic are mostly confined to understanding the benefits of outdoor education on youth, as opposed to the benefits of exposure to nature in general. One study by Berman, Jonides, and Kaplan (2008), however, emphasises the general cognitive benefits that natural environments produce for children, by explaining this effect through what is termed as the Attention Restorative Theory (Berman, Jonides, & Kaplan, 2008). In their research, Berman, Jonides and Kaplan (2008) explain that people can exist in several states of attention, depending on stimuli from

their surroundings. According to Berman et al. (2008), exposure to natural environments helps improve a state of restorative attention. Restorative attention is described as the state of attention that is brought about by restorative environments – those that reduce physiological stress and social fatigue, or conjure up feelings of fascination, escaping or being away and therefore restore the mind. There are varying sensory stimuli experienced when in contact with natural environments (such as while walking in nature) or even just viewing imagery of nature. These stimuli grab one’s attention unassumingly and giving rise to an experience of feelings such as calmness and serenity. In urban environments on the contrary, stimuli present generally grab one’s attention more dramatically, influencing reactive and stress induced behaviour such as, for example, avoiding a speeding car or running to avoid missing your bus (Berman, Jonides & Kaplan., 2008).

Few studies (Barton, 2008; Aaron & Witt, 2011; Emmons, 2006) on youth and nature aim to unpack what youth perceptions are on nature, and how these perceptions influence the way youth interact with nature. Recognising this gap in research literature, this dissertation focused on investigating youth perceptions of nature for the following reasons that are likely to affect societal functioning. Firstly, understanding youth perceptions of nature through their interactions with nature, could allow for a better understanding of youth behaviour, actions and ideologies towards nature. Secondly, it is not only important to study nature as an element for human survival, but also to study youth and the link therein, as youth are the future of societies’ decision-making. Both motivations are ultimately underlain by the need for natural environments to be sustained (Evans et al., 2007).

1.1 Rationale and significance of the Research

Youth (the next generation)

Youth perceptions are important to understand, especially within the political atmosphere of South Africa, as youth play a role in affecting change in society. This is because youth interests are often instrumental in shaping turning points for change in society (Marolong, 2016). Indeed, this is a sentiment that has been echoed from the liberation movements. The late Oliver Tambo believed the students and working youth of the country to be “the pride of the nation.” (Callinicos, 2005, 108). The

importance of South Africa's youth has been evident since the liberation days, through protests and youth leagues, youth have been key figures for change in a difficult political landscape (Marolong, 2016). Over the past decade in South Africa, the youth have also been, for example, the drivers for change regarding service delivery, land and housing rights, as well as unemployment issues (Grant, 2014). Moreover, within the context of tertiary institutions in South Africa it has been the youth, through their interests and concerns, that have forced the pathway towards change relating to more inclusive fees structures, as well as redress of institutional racism and exploitation that comes with outsourcing staff (Manjra, 2016). It could be argued or even projected that South Africa's youth will continue to play a pivotal role in the future development trajectory of the country.

Nature is human survival

The interaction between societies and nature is one that is very important. According to Dunlap and Michelson (2002), societies need the natural world to survive and the natural world requires protection from societies so that there can be mutual coexistence between humans and nature. It has to some degree become impossible to ignore a crisis in nature and the negative impacts of climate change which has become increasingly apparent, especially in an African context. A key interest for environmental sociologists has been to analyse the way qualities of nature are socially constructed, and how this may change overtime. Through such research one can trace how societies are affecting nature and how nature is affecting societies (Dunlap & Michelson, 2002). Arguably, studying the youth's perceptions on nature may give a glimpse into how future societal trajectories may proceed, in this regard.

Relevance

The importance of youth for South Africa's future has been noted. So too has the importance of nature for human survival and sustainable development. What has yet to be emphasised is how the two are intricately linked. According to Carolan (2005), the integration between the integral role that youth play in South African society, and the importance for nature's protection and conservation for sustainable development must be acknowledged as a part of the real world. Thus, the objective of this research is to shift the focus from understanding what effects society and institutions have on nature; to rather

understanding what effect the changes in knowledge, ideologies and respect for nature could have on society and institutions – with youth at the centre. This study seeks to investigate youth perceptions of nature, within the context of South Africa, allowing for a better understanding as to how youth believe they are connected to nature. In other words, an understanding of the extent to which youth feel they depend on nature and how nature depends on them. Concurrently, the research also aims to make an informed opinion on how youth perceptions of nature may translate to behaviour or action towards nature's protection and conservation within the social and political ecology of South Africa.

The significance of this research is its importance in building that understanding as an effort towards tackling environmental challenges in society. Dunlap and Michelson (2002) suggest that by understanding individual's perception this may allow them to be influenced thus changing behaviours toward nature at a micro level (such as through an awareness raising environmental campaigns by citizens), which will eventually lead to change at a macro-level (for example, change in policy and regulation over environmental issues). This dissertation will contribute not only research that seeks to understand of the benefits that the youth derive from nature and natural environments, but also expand upon research on the impact that youth may have on the well-being of natural environments, and by extension on society.

1.2 Study objectives

The purpose of this study is to understand South African youth perception of nature primarily. Making sense of these perceptions through theoretical assumptions, the study aims to help form a discussion on the implications that such perceptions may have for the future of South Africa's development. Youth participants from a selected South African nature immersion programme known as Matric EnWild are interviewed to gather information based on perceptions of nature. This study stands to examine that South African youth perception of nature influences their behaviours and active attitudes towards nature's protection within South African societies

Research Questions

The following research questions guided the research study and guided the methodology.

- What do young people understand about the term nature?
- How have young people's experiences in a nature camp changed the way they view nature?
- What are the implications of youth perception of nature?

1.3 Theoretical Framework

This research will make use of two theories to explain and understand what the perceptions youth have towards nature means. The two theories are Human Exceptionalism Paradigm (HEP) and New Ecological Paradigm (NEP).

These two theoretical models coined by Dunlap (2002), could be key in understanding youth perceptions of nature. As environmental sociological terms, both theories would make sense of findings that emerge during the research. These theories would help when analysing what some of the youth perceptions of nature translate to, in other words; youth ideologies, behaviour and action towards nature.

Human exceptionalism paradigm

Human Exceptionalism Paradigm (NEP) argues; the fact that humans are exempt from ecological principles, the management of the environment only exists for human use. There are infinite resources available to humans or means to create these resources (Dunlap, 2002). The characteristics and beliefs that stem from HEP are individual freedom, minority rights, material wealth, national sovereignty, present generation, determinism, anthropocentrism and utilitarianism (Dunlap, 2002). This theory relates more to an individualistic perspective. An individualistic perspective towards nature is one characterised by a belief that one is entirely separate from nature. If this theory should emerge as dominant in the research, regarding the perception of nature that youth hold, this would indicate a highly problematic issue in the context of South African society. It would showcase the youth would be unable to maintain or sustain the natural environment for the future. This theory could be used to argue that youth perception is detrimental to the country. As they would exist only to think of nature as dependent on humans. This theory would help explain that youth are misinformed about nature degradation and

resources, and as the future leaders of South Africa this is a very problematic image. Problematic in the sense that South Africa's future policy and law creators (the youth), hold such harmful views of nature.

New Ecological Paradigm

New Ecological Paradigm (NEP) on the other hand argues that humans are but one species out of countless others that rely on the natural environment. There is an interdependence of humans and nature. The characteristics and beliefs that stem from NEP are that of a common good, spiritual wealth, global responsibilities, future generation, freewill and agency, deep ecology and egocentrism (Dunlap, 2002). This theory relates more towards a collectivist perspective. A collectivist perspective is that which is characterised by a belief that one is a part of nature – in other words, one with nature.

Should this theory emerge as dominant in this research, with regards to explaining youth perceptions of nature, it would point towards a satisfactory outcome within the context of South African societal future. Satisfactory in the sense that South Africa's future policy and law makers (the youth), hold views that are supportive and beneficial towards nature. This theory would explain how youth in the country are aware of environmental issues, how youth see themselves dependent of nature as much as nature is dependent on them. As future leaders of the nation, having a mindset that's best explained by the NEP theory would mean an environmentally sustainable world view that seeks to protect nature for the wellbeing of humans, but also for protecting nature from further degradation.

CHAPTER TWO: LITERATURE REVIEW

2. Introduction

In order to make sense of youth perceptions of nature, it is necessary to understand what existing studies have shown about youth perceptions of nature. Existing studies can help highlight key themes and factors. Themes and factors that could be reoccurring in any new data that is gathered.

Understanding what information exist about youth perceptions of nature can also help determine whether significantly new findings have emerged based on the study conducted in this paper. Or whether the information gathered in this paper confirms that of any theories and existing literature.

The following chapter will begin by firstly drawing on the importance of a literature review for this study, indicating how the literature review was conducted and how it will be used to make sense of the data that is collected. The chapter will then go onto display integrated finding from literature, before concluding the main findings based on existing literature.

2.1 Factors that influence youth perception of nature

The contents of this literature review are based on extensive research done on a range of peer-reviewed publications. The publications reviewed are all related to the topic, 'perceptions of the natural environment'. By reviewing such literature, a better understanding of what forms perception of the natural environment may emerge. This can then be used to generate a discussion of what may also form youth-based perceptions on the natural environment.

Upon conducting a literature review search based on youth perceptions of nature, it became apparent that there is a lack of literature that exists specifically for this topic. Most researchers choose rather to focus on attitudes of the youth rather than their perceptions. Attitude is closely related to action and behaviour, whilst perception is linked to how one interprets what they experience (in other words; it is to do more with what one feels, hears, smells among other things). The way one perceives something ultimately leads to the way they respond to it, which is influenced by their attitude towards it. Although it is evident that the two are linked, the terms attitude and perception are often used

interchangeably by some researchers since they are both connected to emotions and behaviours (Bahamonde-Birke, Kunert, Link & Ortúzar, 2015). As such, due to lack of literature linked to perception of nature, the scope of this review has been expanded to include literature on attitudes towards nature.

There are many different influences of one's perception. Existing literature stipulates psychological and social factors as influencers of perceptions. For this research, only literature that focuses on the social influences of perceptions are reviewed. To understand a person's perception of nature, focus can be placed on a person's heritage, upbringing, job and physical surroundings (Tuan, 1990). Perceptions are important to study as they aid in the understanding of human behaviour. Without understanding human behaviour, there can be no solution to environmental problems which are fundamentally anthropogenic and are therefore human problems (Hunter, Strife and Twine, 2010). Literature in the field of environmental perceptions largely exist in part to explain the behaviours and attitudes people have toward the natural environment. This behaviour and attitude are often based on what people know or understand about the natural environment; and ways in which they have been environmentally educated. Environmental behaviour is a direct consequence of one's attitude, and attitude stems from one's understanding and knowledge, in other words, perception. Thus, studying perception can be integral in understanding some of the complexities of human behaviour (Evans et al., 2007). The variety of frameworks in research have emphasised how complex it has become to explain human behaviour towards the environment., especially behaviours that are not a definite but are circumstantial and are therefore likely to change over time (Kollmuss & Agyeman, 2002). Certainly, behaviours may also differ based on context in which one lives., One's behaviour and attitude towards the natural environment in a rural context may be different to someone else living in an urban context. Human behaviour is important because humans have the power to dramatically influence the health of the earth's natural environment. This is especially important to understand in youth.

What a child or the youth understands about the natural environment shapes their ecological behaviour and beliefs in adulthood (Evans et al., 2007). Thus, studying children and their understandings of nature can help improve environmental education (and other) projects, programmes,

policies that may be better equipped at attacking misconceptions of the natural environment in children, at an earlier age (Evans et al., 2007). The current state of environmental education programmes for children seem to fall short in developing the kind of citizens that are adequately environmentally knowledgeable, skilled and conscious in adulthood – those that might be dedicated to maintaining a balance between quality of their own life as well as the quality of the natural environment (Wals, 1994). Wals (1994) argues that because there is likely no universal environmental behaviour that exists – this universal behaviour would have to be based on a universal understanding of the natural environment, which is also improbable. Ongoing research on perceptions of the environment are studied across spectrums to understand what many different factors may come to influence one's perception (Wals, 1994).

2.1.1 Perceptions of nature: a matter of access and location.

A study conducted on random citizens through survey in Illinois, Minneapolis and Minnesota, found that people generally have contradicting views on nature. According to Vining et al. (2008), although many people consider themselves to be a part of nature, their general perception of what constitutes as the natural environment excludes humans or human involvement, thus rendering people separate from nature. The perception of an unnatural environment is one that includes mostly human made entities. The idea is that nature is understood by most to be preserved land, uninhabited or unaltered by humans (Vining et al. 2008). A lack of contact and everyday closeness with nature characterising a physical separateness from nature, is said to make people believe that they are separate from nature, even though one may still consider themselves a part of nature (Vining et al. 2008). In other words, one's proximity to natural environments, has a great impact on one's feeling of connectedness to nature. A feeling of connectedness to nature may come from taking part in actions involving the natural environments such as; recreation, residing, stewardship and environmentally responsible behaviour. Vining et al. (2008) argue that as humans, there is an overlap with nature, allowing for a dichotomous ideology to exist – people live apart from nature and are therefore separate from nature, but at the same time some aspects of our lives inevitably make us a part of nature. Vining et al. (2008) echo the sentiment of perception

based on access, where it becomes up to an individual's location, that governs how much a part of nature they feel and how that in turn shapes their beliefs, behaviour and or attitude.

This is similar to what Hunter et al. (2010) conclude in their study on the environmental perceptions of rural South African residents, Hunter et al. (2010) found that location is one of the factors that plays a role in influencing one's perception on nature. An investigative study was conducted on residents of 240 households across 12 different villages near the Kruger National Park. The investigative study sought to understand the environmental perceptions of these rural residents, based on how they answered questions linked to environmental issues. Resident members had to indicate on a scale, the level of seriousness with which they viewed various environmental problems. Social problems could then be redefined based on the level of concern for various environmental issues (Hunter et al., 2010). For example, depending on the level of seriousness, certain rural residence felt about cutting down of trees in their surroundings, one could argue that it becomes a social concern, since trees are important and useful for various reasons. Hunter et al. (2010) stipulate that social economic access to natural surroundings (especially those of economic value) may influence one's perception of nature. The conclusion is therefore that there is a material value linked to having a concern for nature, on top of one's location. Similarly, Vining et al. (2008) concur, stating that one's location determines how much contact and use (economic or otherwise) one has with the natural environment. The frequency of the contact and use of various materials from the natural environment shapes perceptions on nature (Hunter et al., 2010).

Human beings greatly depend on easy access to nature's resources. According to Green et al., (2015) this dependence can be seen by human access to freshwater. A human has no means of retaining water indefinitely and therefore we are at the mercy of nature when it comes to gaining water (a natural material) (Hunter et al., 2010). Easy access to streams, natural pools, springs and rivers, serve humans well (Tuan, 1990). And research has found, by using indicators, just how dependent humans are on a natural resource such as freshwater. Whether in a developed or developing area, a large percentage (82%) of the world population is dependent on freshwater (Green, et al., 2015). The level of dependency differs, thus the perceptions may too. Depending on whether one takes such a natural resource for

granted or not. According to Green et al. (2015), those who live downstream from water sources are greatly dependent on those that live upstream. Reason being is that if water is polluted or limited upstream, where it eventually flows too is affected. Those that live upstream might take the water more for granted than those living downstream. This example shows that the type of interaction that one has with certain nature elements is based on their access and location, and this interaction is what helps build perception of nature. Location is important as it further influences cultural norms. Keeping with the example of access to water, island residents have a different interaction with water as a resource than inland residents do. The type of access to water that islanders have for instance, is what Tuan (1990) identified as attaching certain beliefs to fresh water (which may be scarce to find on islands), almost worshipping it as sacred and divine. Ancient Greeks and Chinese attached myths and stories of legends, to water. This helped showcase the importance of water and nature in their locations.

The connections formed towards elements of nature in certain locations, allows for better understanding of the people's attitudes and behaviours towards nature. Location determines access to certain natural resources, it is because of this that people become more attached to different elements of nature. This attachment in turn influences their perceptions. Understanding this point is a necessary step towards understanding how a youth's location and access they may have to certain natural resources, would influence their perception of nature.

2.1.2 Perceptions of nature: a matter of gender and culture.

As touched on previously, culture is one aspect that affects perceptions towards nature. According to Nueliep (2014), there is a 3-step process of forming perceptions, these are selection, organisation and interpretation. These elements are all affected by culture (Nueliep, 2014). Every day one is exposed to more stimuli that they could possibly imagine. What you choose to take in and acknowledge is influenced greatly by culture. This is what Nueliep (2014) terms *selection* - the first step in the perception process. The second step of perception is *organisation* – described as how one grasps (selected) stimuli from the environment and constructs meaning from them, likely by placing relatable things together. The last step in perception is *interpretation*. The way in which people interpret things

may differ from person to person, and culture greatly influences this. The cues used for interpretation are very subtle, yet similar types of interpretation of a stimulus may occur across several people of the same culture (Neuliep, 2014). This phenomenon may be so deeply rooted that, according to Tuan (1990), culture can influence perception to the extent that people perceive things that may not actually exist. In cultures where gender roles are very distinct, men and women are found to adopt different values and may perceive certain aspects of nature differently. Hunter et al. (2008) discovered that strictly based on cultural gender roles, it becomes evident how an individual's perceptions, attitude and behaviour towards nature is shaped. For example, women in rural areas who are culturally expected to collect water and use it for cooking and cleaning, may begin to become keenly aware of the sacredness and importance of water from nature, a perception that may differ from that of men in this cultural context (Hunter et al., 2008). In fact, it is believed that women from the rural areas are more connected to nature than their male counterparts, because culturally they are nurturers, and this transcends to the everyday physical work that brings them closer to nature (Sachs, 2018). In studies of ecofeminism, great emphasis is often placed on female and nature dominance from a cultural perspective. How women perceive nature has a great impact on their communities as this influences their attitudes and behaviours in the relationship they hold with nature. Usually the relationship women hold with nature is taken for granted, be it growing crops or taking care of livestock. It is either not regarded highly like male duties as it may be lowly compensated, or it is not regarded highly as females are not often the land owners (Sachs, 2018). Overall gendered division of labour as it relates to work done out in the natural environment; and stereotypes held as a result, may greatly impact the perception on has of nature.

Apart from cultural gender norms, there are other forms of evidence that may suggest perceptions of nature are influenced by culture. Evidence can be traced from the traditional tribe of the Kanak people of New Caledonia, for example, who considered nature as a huge part of their cultural heritage, which can be seen to be inscribed in the features of their historical cultural activities (Horowitz, 2001). Their history is full of adventures, passages and spiritual ancestry that are linked with nature. However, colonialism changed the traditions and spiritual practices of many indigenous tribes, including the Kanak people. Individuals from indigenous cultures that survive today, like the younger

Kanak people, blame the western economic activities for heavy cultural loss and environmental degradation, that has affected the way they once may have felt about their connection to nature (Horowitz, 2001).

When cultures mix and combine traits to form new cultures. Often a cultural crisis emerges in this way (Tuan, 1990). When indigenous Kanak culture mixed with external colonial culture, the Kanak people were subjected to a loss of connectedness with the natural ancestral lands (Horowitz, 2001). It then also becomes hard or nearly impossible to revert to the traditional ways, as the cultural practices of the Kanak people have sadly become saturated through colonial influences (Horowitz, 2001). Cross-cultural studies have revealed that a mixture of cultural differences in a single location can also have a saturating or complex impact on how people value natural resources in an area. In a study by Johnson and Zipperer (2007) on Southern American cultural groups investigating differing perceptions that different local groups and outsiders to the south had towards the public wildlands, the authors discovered many variations exist across racial and ethnic groups. When it comes to perceptions about forests and natural areas of recreation, perceptions vary significantly amongst Africans, Asians and Latinos about the wildland visitations in the same location (Johnson & Zipperer, 2007). Similarly, Macias (2015) perception of the environment differ across race and ethnicity. In a study on nine racial and ethnic group in the United States as a whole, what became prevalent is that people of colour showed more concern over threats of climate change and nuclear power, over whites. These concerns were unified within different ethnic racial groups, rather than individually spurred (Macias, 2015). In other words, respective cultural groups within these racial and ethnic groups play a role on an individual's concerns over the environment.

It is hard to deny that different cultures and different cultural practices in nature, whether they are ethnical, gendered, age-related, or tribal amongst other factors, may impact one's perception of nature. Simply because cultural aspects are linked to upbringing as well as the interactions with institutions. It is almost impossible to avoid having a culture of some sort, as cultures can be formed in different places and in various ways. Identifying cultural elements such as those linked to gender and

nature, clarifies how the two combined would then influence how youth of different genders end up perceiving nature differently. The same could be said for age, race and class.

2.1.3 Perceptions of nature: a matter of perceived risk.

Where there are a melting pot of different cultures and people interacting with the same natural environment, the perceptions of nature may also be shaped by how much risk the environment is believed to pose, which may differ from person to person. Continuing with Johnston and Zipperer (2007) observations, they noted that the engagements of most African Americans with the natural environment, for example, is distinct from other groups. This may likely be because they are deterred from camping and hiking in the wildland areas and publicly owned land, that are vulnerable and exposed to many muggings and murders that have been reported in such areas (Johnson & Bowker, 2004). In this case, this cultural groups perception of nature is influenced by their risk perception.

Risk perception influences the way people make judgements on how dangerous an environment is and what might impose threats to their wellbeing within that environment. This is influenced not only by psychological but also by cultural factors (Fragouli & Theodoulou, 2015). The way groups of people in societies manage risks, is greatly influenced by what risks the people are more concerned with. What the group is concerned with is also said to be culturally linked (Fragouli & Theodoulou, 2015). Through culture; spiritual and religious beliefs play a role in determining what people may perceive as risky behaviour towards and about nature. There are usually specific sacred understandings about natural elements like rivers, forests and mountains, that cause this (Sachdeva, 2016). According to Sachdeva (2016), viewing the environment as sacred can lower harmful behaviour groups have towards nature.

Thus, nature perception goes hand in hand with risk perception as it so too does with culture and cultural factors – such as customs, traditions and beliefs. Understanding what the youth might perceive as risky towards or about nature, relates to understanding what the youth may then perceive of nature in general.

2.1.4 Perceptions of nature: a matter of education and upbringing

This notion that culture and risk perception influences the way that one might perceive nature can be further reinforced by another major factor. Petrosillo, Zurlini, Corliano, Zaccarelli & Dadamo (2007), argue that environmental perceptions may also be based on a person's socio-economic status and ultimately their past experiences, which are linked to their upbringing. In a case study done on tourists across various coastal Italian regions, it was discovered that the way tourist's make use of certain environmentally protected areas (with the focus on marine protected environment), may differ to the locals. This is based on their socio-economic status that is likely to have granted them broader educational knowledge and a more engaged personal upbringing (Petrosillo, et al., 2007). The research suggests that there's an importance of having access to natural activities while growing up that allows for people to participate in nature and understand their environmental impact (Petrosillo, et al., 2007). Educational level and social background, which includes upbringing and place of residence, play a role in awareness of one's environmental footprints (Petrosillo, et al., 2007). Petrosillo et al. (2007) also suggest that tourists who have travelled further have a greater awareness of their environmental footprint and pay more attention to the protection, management and sensitivity of environmental areas. This is likely because most become more well educated and knowledgeable about their environmental impacts, to be able to afford this travel lifestyle.

The attitudes and perceptions that people have towards animals in nature are also shown to be influenced by not only gender, but formal education (Pinheiro, Rodrigues & Borges-Nojosa, 2016). Gender plays a role in one's upbringing, despite gender being a social construction and not biologically determined (Moffett, 2008). Often one is indoctrinated by birth as one gender, which is then pushed forward by the family. In their research study on perception towards snakes in Brazil, Pinheiro et al. (2016) remark on how formal education and gender influence human perceptions of snakes in nature. The findings indicated that prior interactions with snakes in nature (as is more common among males who would play outdoors), was more likely to create a positive perception and reduced fear of snakes. Therefore, it was evident that women were found to be more afraid of snakes than men, perhaps due to less encounters with them as children while they stayed indoors (Pinheiro, et al., 2016). Additionally,

negative perceptions towards snakes are lessened with an increased in schooling, that is likely to equip one with greater ability to handle an encounter with a snake (Pineiro, et al., 2016).

Hands on experience is key when formulating perceptions of the environment. Although education is a vital component as well, one must experience nature (and animals) in a practical sense and not through theory, in order to form stronger perceptions and attitudes towards it (Chapman & Sharma, 2006). For example, although Brazilian women could be educated on how to handle a snake they encountered, there would always be a pre-formed perception from when they were children. Chapman and Sharma (2006) research on school-going children suggests that the relationship between the environmental awareness and environmental education, is determined by extent to which environmental problems around them are dealt with at school or through other educational programmes (Chapman & Sharma, 2006). This in turn determines how effective children's environmental education programmes are for future experiences. This is also linked to their perception of nature and environmental problems.

Whatever prior interaction and knowledge a student had with the environment, could be influence or contradicted by any new information gained through exposure to environmental education outside school (Chapman & Sharma, 2006). Chapman & Sharma (2006) suggest that how students understand environmental education can be affected by the media, that plays a role in shaping their environmental knowledge (Chapman & Sharma, 2006). For example, imagery of nature shown to children in literature and media, determine the foundation of stereotypes they hold about nature in later years (Keliher, 1997).Such is the case that the biggest known pollution related environmental issue named by six and seven-year-old in research study done by Keliher (1997) was littering, although this may not be the case if the same were asked of an adult.

Parents may also play a role, although they are believed to be a bad source of environmental education for children, with most children not being made aware of the general state of the environment in their country through their parents. However, even when students were taught and understood the

importance of environment and its vulnerability to degradation, they rarely translated this into activism. Admittedly, there is not enough practical work being done about this issue by the youth.

Despite this, understanding how children perceive nature from a young age, can allow educators to provide a meaningful learning experience for children to foster environmental concerns while they are still young. At a young age, these perceptions may be influenced by familiarity with and experiences in nature. The earlier a child receives guided environmental education, the less likely they are to develop alternative (negative or indifferent) perceptions towards nature later (Keliher, 1997). This is because the strong perception towards nature that are developed early in a child's life may not change significantly or easily with intervention in later years. Formative life experience may be an important foundation for the development of active environmental concerns and action among these youth at a later stage of life (Keliher, 1997).

Education about nature is important as it forms the foundation of knowledge, which influences perception. Although it is noted that education may not only be received formally through schools, but also areas outside of schools, what a child learns at a young age informs the ideologies and knowledge they may hold in later years. This is therefore why being educated on nature and the areas one may receive this education growing up, influences how they may perceive nature as a youth.

2.1.5 Perceptions of nature: a matter of nuance

Adams and Savahl (2013) study on south Africa adolescent children, age 13-14, from low-income households, attending schools in the Western Cape province. revealed how nuanced social and cultural background greatly influenced these children's perception of nature. Five key perspective outcomes emerged from this research in relation to children's perceptions on nature. These are: (i) *Nature as a threatened place*; (ii) *Culture of 'inconsideration' towards nature*; (iii) *Nature as external to the self*; and (iv) *Nature as the dangerous other* and *Intrinsic care for nature*. The first and second perspective outcomes; that is, *Nature as a threatened place* and *Culture of 'inconsideration' towards nature*, allude to the fact that a child's perspective of nature may be that it is threatened due to either lack of environmental awareness in society or due to societal consumerism that results in negative long-term

ecological consequence (Adams and Savahl, 2013). The third perspective outcome, that is, *Nature as external to the self*, may suggest that a child's perspective on nature may be removed from themselves – such as environmental problems being viewed as external to self by transferring blame to someone else for causing the problem (Adams and Savahl, 2013). An example of this may be the prevailing rhetoric that the degradation of nature in communities is mostly due to government failure to maintain a clean environment and uphold environmental law. This leaves no accountability on the citizens' part, including the part of children in the community. The fourth perspective outcome is *Intrinsic care for nature*. Here, children acknowledged that nature plays an important role in one's wellbeing. Therefore, regardless of having little to no contact with nature over time, one should still feel a deep concern and sensitivity over natural degradation (Adams and Savahl, 2013). Lastly, the fifth perspective outcome that emerged based on children's perception of nature, was Nature as the dangerous other. This outcome is particularly dependent on the background of the children that took part in the study more so than the other four outcomes. The children that took part in the study, mostly came from poor communities with high crime rates. Areas with natural environments such as open fields and canals were associated with being unsafe – many of these the scene of brutal crimes and kidnappings. Hence children's contact with these kinds of areas of nature was limited due to anxiety and fear (Adams and Savahl, 2013). These five outcomes further reiterate how perceptions of nature, influenced by individual's background, can influence behaviour towards nature. This is especially nuanced in the complex cultural and socio-economic landscape of South African context, where all or most of these five outcome perspectives may sometimes play out in a single context.

It is useful to understand what are the different factors that may influence youth perceptions of nature. How such perceptions of nature are formed, may differ from person to person based off subtle nuances. Even though perceptions of nature may differ from one youth to another, in various distinctive ways, depending on context and the individuals themselves, most perceptions of nature can be linked back to one of two perspectives – these are a Collectivist Perspective and an Individualistic Perspective. These perspective help group various perceptions that youth may have of nature based on common traits.

2.1.6 Collectivist perspective: humans connected to nature

African culture and even languages have long echoed a sense of oneness with the environment and one's surroundings. For instance, the Zulu concept of "Ubuntu", a term later adopted as a common word amongst post-Apartheid South Africans, is an expression for togetherness. Ubuntu refers to a collectivist perspective of how society works. It can be translated to mean that a person is who they are, not through themselves alone, but through others around them (Eze, 2016). Similarly, the term "Letsema" can also be viewed as a symbol of collectivist perspective amongst Tswana people. Letsema is understood to mean the act of volunteering oneself for collective community projects to ensure the positive progression of the community (Modipa, 2014). It's African roots stem from traditional proverbs referring to the fact that "two heads are better than one" or the narrative of the mutual benefits of "you scratch my back and I will scratch yours" (Modipa, 2014, [online]). The Basotho people took the concept Letsema not just to mean teamwork amongst community members, but also a partnership with the land, rivers and nature in general. Culturally, the Basotho believe humans and non-humans are related. This can also be understood by the Basotho term "Re Seng" (Modipa, 2014).

The significance of these various terms for connectedness and unity alludes to the fact that many African cultures traditionally have a collectivist attitude on how society should operate. In the past, not only were societies believed to operate well from the respect and collective agency that people had for each other, but also the respect people had for the land. This reflected how many African communities would be governed. African people's history of land and land-use for indigenous farm practices is a good example of this (Benneh, n.d.). Land collaboration by the African people was characterised by the values of Letsema and Ubuntu. Such values emphasise the interdependence, reciprocity and collaboration of nature and people (Modipa, 2014). People assisting one another around the village enhanced their sense of belonging and was central to many African people's way of life. Other than that, nature was also viewed as a collaborator in keeping the community going (Modipa, 2014). The fact that Africans had a direct participation with growing and harvesting for food, appeared to establish and maintain the context of being respecting of the land. Developing the land was not something that could be learned when sitting in a hut, but by going to work with the land. In time that

interaction between human and nature would make one more appreciative and respectful of the land (Tsepe, 2008).

This bears comparison to the concept of nature connectedness, coined by environmental psychologist Professor Schultz, which refers to the extent of which individuals include nature as being part of their identity (Schultz, 2002). The characteristics of nature connectedness are said to be stable over time and in various situations, and are comprised of three physiological components – cognitive, affective, and behavioural components. The cognitive component refers to a reflection on what an individual understands, feels, thinks or believes about nature (Schultz, 2002). The affective component suggests an individual's attitude and sense of care towards nature – i.e. their emotional responsiveness towards nature (Schultz, 2002). Lastly, the behavioural component ties in closely to the other two traits. As an individual understands and thinks about nature (cognitive), this affects their emotions towards it (affective), which in turn determines their behaviour towards nature and the environment. Behavioural component therefore refers to the extent an individual's commitment is to protecting nature (Schultz, 2002). Other scholars have further touched on this notion of nature connectedness, citing that when individuals feel more connected to nature, they may be more inclined to care about it and to protect it (Dutcher, Finley, Luloff, & Johnson, 2007). Research shows that feeling connected to nature allows for one to love nature, see themselves within the same standing as nature and become emotionally connected to nature (Dutcher et al., 2007). As a construct, nature connectedness can also be defined as, nature relatedness, connection with nature, emotional affinity towards nature and inclusion of nature in self (Dutcher et al., 2007).

Having a collectivist perspective in life is linked to education, location, culture; all the factors that influence perceptions. Even though cultures, education or the area one grows up in during their upbringing, may differ; the distinctive traits of each can be grouped together to suggest a collectivist perspective of life. If one holds a collectivist perspective, they would be more concerned about the whole rather than the individual. Collectivist perspective focuses on valuing the importance of everything in society, for it has a purpose. When this is done, a collective effort is seen as beneficial in order to make society functionable. One is only as good as the help they receive from others. Based on

culture, educational background and location, youth can hold a collectivist perspective of nature. This collectivist perspective of nature would influence how youth view, understand or their ideologies about nature. In other words, influences their perception of nature.

2.1.7 Individualistic perspective: humans apart from nature

Even though humans can derive many benefits from nature, our modern lifestyles have created a disconnect from nature, where we spend too many hours indoors. This disconnect from nature can have a negative impact as we begin to disregard the importance of nature itself. By being less connected to nature one may lose interest and feel less responsible for the protection of the environment (Schultz, 2002). This type of behaviour towards nature is contrary to the collectivist understanding of nature and the ideologies that Africans historically held. Many have argued that such individualistic ideologies that separate people from nature, stem from western cultures introduced during colonialism (Igboin, 2011). For generations now, humans have been degrading the environment for personal and financial gains, even though we have, more recently, become more aware of the destruction caused by habitat loss, global warming and non-sustainability practices (Kerstein & Katsis, n.d). Minimal contact with the natural world in our everyday lives within urban setting, has led to the belief, perhaps, that we are more important than nature (Modipa, 2014).

In some cases, people do not truly know the effects of their action on nature, but in many other cases where they do know, the extent of the effects are kept hidden from society. It is only recently with advances in technology and scientific research that the effects of humans on nature is beginning to be understood. However due to much uncertainty on what the future could look like, many are still contempt with degrading the environment for personal gains in the present. The justification of harmful action on nature is almost always dominance and superiority of humans. The argument here is that humans are more important and therefore separate from nature (Kerstein & Katsis, n.d). Aspects such as Letsema as a way of life, suddenly become a distant narrative. Although humans seeing themselves as being separate from nature is problematic, humans also have the power to become more aware of their impacts and change our behaviour accordingly. Environmental movements and programmes show how people use such consciousness to spur a reflection on the impact humans have on the earth

(Kerstein & Katsis, n.d). Upon reflection, some individuals might continue to view themselves as separate to nature and continue to actively exploit nature, whilst others might choose to act differently and seek to protect the health of nature (Bromley, 2013). This has a direct impact to the way an individual chooses to see the world.

Arguably, this also holds significance for future generation who have the potential of having a lower environmental footprint, because of this growing consciousness back towards traditional views of humans as one with nature. The next generation of adults (the decision-makers, influencers, social agents, and action champions), who are the youth today, are of key importance in raising consciousness to this end. The youth have been an important part of several societal changes in South Africa. Their perception of nature be it individualistic or collectivist, is key to understanding what the future might hold for the environmental landscape of the country and the continent.

2.2 Conclusion

It is evident from the literature that the relationship that one has with nature, determines to what extent they consider themselves separate or connected to nature. Literature has shown that several factors influence which side of this dichotomy one falls. For example, one's cultural and social background, level of education or access to natural spaces can determine the way in which one views nature and therefore behaves towards it. These factors are useful to understand youth perceptions of nature in this study. When studying the perceptions of youth, it is best to understand how such perceptions are formed. Perhaps if some perceptions are problematic or rather could prove to be problematic towards nature given a situation where youth attitudes and behaviours towards nature are not favourable, this might be attributed back to the way in which such perception were formed. For perception to be assessed or to change, it can now be seen why the factors discuss in the literature review play a major role in a potential intervention. These factors will not only be used to explain youth perception of nature throughout the paper, but also help create a discussion on which theory, HEP or NEP, best describes the youth.

Conceptually this study seeks to understand youth perceptions of nature. Highlighting the factors that influence perceptions of nature, helping create a better understanding of why it is that youth

may hold a certain perception of nature. Holding certain perceptions of nature translate to having certain behaviours and attitudes towards nature. This is where theory is used to make sense of the meaning of certain perspectives of nature that the youth may hold. The integration of literature on factors that influence perceptions of nature, together with the findings of this study on perceptions of nature, and the interpreted meaning for these perceptions using theory; all contribute valuable information to studies that already exist. The most important factors are that youth, the future of South Africa, and nature, that is necessary for human survival, are being studied. It is important to understand not only where the youth are, but where they have been and where they might be in the future. All this as it relates to the relationship youth have with nature.

CHAPTER THREE: METHODOLOGY OF STUDY

3. Introduction

In order to obtain insight to what youth perceptions of nature are, a conversation must be had. There can be statistic that is gathered to try and help explain perceptions, however a in depth understanding cannot occur in this regard. It was vital in this study, that an in-depth understanding on the views, understanding and ideologies of youth were towards nature. And how these ultimately influenced youth attitudes and behaviours towards nature. In this chapter the necessary steps that were taken to gather data for the study, is shown. The chapter begins first by giving a brief overview on the importance of the methods that were selected for the study and how they were selected. The chapter then goes on to discuss how sampling was done in the study, the criteria and the groups selected to be sampled for the study. Lastly there is a brief insight on how data was analysed throughout the study before giving a summary on what this all means for the study going further.

3.1 In-depth understanding of perception

The aim of this research has been defined as determining what youth perceptions of nature are, more specifically South African youth. The study will aims further investigate whether such perceptions prompts specific kinds of action, behaviours, attitudes and or ideologies., based on the HEP and the NEP theories. Understanding this as the main target, data had to be collected to try and understand youth perceptions of nature further.

Existing research methodologies on perceptions of nature have mostly consisted of qualitative interviews and questionnaire surveys. Similarly, in this research, qualitative interviews formed the basis of data collection and a questionnaire survey provided a means of a secondary data collection - which would merely serve to confirm information gathered through the interview process. Both qualitative interviews and questionnaire survey are similar in function – their purpose was to guide conversations with key respondents answering the structured questions provided (Kvale, 1996). What differs between these techniques is found at the epistemological level. Qualitative interview approach is constructivist in nature as appose to positivist, meaning that it allows participants to actively participate in knowledge

creation, as they help make sense of terminology and or concepts. The questionnaire surveys, this may be the opposite, as participants may merely be retrieving information from a pool of already existing answers or outcomes (Holstein & Gubrium, 1995). This was done in the form of tick-boxes and Likert scales.

Qualitative research methods are advantageous in understanding a phenomenon in depth and in more detail (Strauss, 2010). This helps to create an understanding of what information may mean, not necessarily through fact or by law (Mishler, 2009). A qualitative research approach can also be used when studying behaviour, attitude and feelings, as with this research on youth perceptions, as the techniques create an openness that allows for the emergence of new topics during the research (Strauss, 2010).

3.2 Case study

The study tests youth perception of nature by using students enrolled in the Matric EnWild Nature immersion programme as a case study. Matric EnWild (previously called Matric Chill Out) is a nature immersion programme created by the organisation called the Rim of Africa. A nature immersion programme is understood to emphasize conservation and to inspire environmental awareness and responsibility by promoting an interest in nature through first-hand experience gained from teaching and learning in nature, rather than focusing on effects and consequences of environmental destruction (Yardimci & Leblebicioglu, 2012). Matric EnWild aims, amongst other things, is to have students that have recently finished matric, take part in an adventure into the wilderness for a few days to become more attached and attracted to nature. By doing so the programme functions on the premise that an individual may begin to generate a connection with the natural world, because they are in contact with nature for a long period than they would be on a day-to-day basis. The programme is underpinned by the premise that by becoming connected to the natural world, one is more likely to feel the need to conserve or protect it.

3.3 Sampling

The study population is drawn from youth who previously attended the Matric EnWild nature immersion programme. The programme was selected as a case study that also provided a South African context. The population size came from a combination of 24 participants that attended the programme between 2015-2016.

3.3.1 Sampling criteria

The sample size for this study was a set of 20 participants. There was a total of 6 participants selected for face to face interviews, whilst the other 14 took part in a questionnaire survey. 'Theoretical saturation' is the reason why only a total of 6 participants were selected for the interview purpose. According to Lewis-Beck, Bryman and Liao (2018), it is believed that it would take this number of participants to generate enough themes for a study and all concepts theoretically can be well developed. If more than 6 participants are to be interviewed, no substantial new information will come about (Lewis-Beck et al., 2018). The data that is gathered from the interviews was used to formulate a questionnaire survey. This questionnaire survey was then sent out to the rest of the participants (14) to confirm key themes that emerged from the interview process. The 6 participants that were interviewed were selected based on gender, race and socio-economic status. This allowed for data diversification, as literature has shown that one's background greatly influences the manner that one may perceive nature (Petrosillo, et al., 2007; Adams & Savahl, 2013). From the 6 participants interviewed, the representation of race came from black, white and coloured South African. From each race there was to be a representation of gender, based on gender binary. Therefore, from the black participants there was one girl one boy. This was the same for the other races. The division of class was also binary. The choice was made to group youth that came from middle- and low-income households together, separate from those that came from high income households. For socio-economic status, there too had to be one youth member from a different class within each race group. For example, with those who identified as being white, one participant had to also have identified as being from a high-income household, whilst the other from a middle- or low-income household. The race, class and gender criteria for participant

selection, has room for expansion. These can be tweaked based on the diversity of participants Matric EnWild has had over 2015 and 2016. The study conducted can then identify whether race, class and or gender of South African youth, plays a significant role on their perception of nature.

3.4 Data Collection

For the interview process with the 6 selected respondents, an interview guide was created. The interview guide consisted of questions that are semi structured and open ended. Semi structure interview guides are useful for this research as there is not much known about the participants and therefore a conversation needs to be initiated to find out more (Mathers, Fox & Hunn, 1998). The questions from a semi structured interview guide served as a topic reminder or topic facilitation tool, where there is no real hypothesis for a research, but key themes and questions needed to be discussed (Corbetta, 2003:270). Data gathered via an interview process was done face to face and recorded using a voice recorder, so that it could later be transcribed and analysed.

To conduct the surveys with the remaining 14 respondents, a questionnaire was created based on key themes and issues that emerged from literature and from the face-to-face interviews. The survey questions consisted of a combination of open-ended and closed-ended questions. Open-ended questions are useful because they help discover responses that participants might give spontaneously, as opposed to being directed on what to answer with suggested responses (Reja, Manfreda, Hlebec, and Vehovar, 2003). With regards to the close ended questions, participants were required to select between suggested responses, stipulated in the questionnaire. The purpose of the closed ended questions was to reduce doubt, bring about consistency and understand the parameter around a certain theme (that emerged from the interviews) across respondents (Reja et al., 2003). Closed ended questions are useful when collecting concise facts about respondents and if potential time constraints are foreseen (Reja et al., 2003).

3.5 Data Analysis

This research makes use of a phenomenological research analysis approach, that was made famous by Dutch scholars. This approach differentiated itself from other phenomenological research analysis, by

utilising both descriptive and interpretative ways of understanding thematic aspects of an experience (Reiners, 2012). Descriptive phenomenology was founded by Edmund Husserl. Husserl (2013) developed a way of understanding humans better through descriptions of human conscious behaviour. Citing what are the known facts and evidence that create a person's intentions. In other words, what known memories, thoughts, imagination and or emotions affect a person's experiences. With descriptive phenomenology, all else that is preconceived or not within the realm of the conscious mind (what is known) is not really seen as an important aspect to focus on (Reiners, 2012). Some scholars who disagreed with Husserl, most notably so Martin Heidegger, believed that when understanding humans, nothing can be said to be less important. Heidegger saw what is conscious and what is within the unconscious or sub conscious mind as equally important. Heidegger created interpretative phenomenology that unlike the descriptive version, sought to understand not only experiences, but the meaning behind them. In other words, not only what we know, but also knowledge behind what we don't know. Prior understanding is useful when trying to interpret (Reiners, 2012).

To begin the process of data analysis, key themes that stemmed from literature were used to create 5 key categories that helped explain how perceptions are formed. These categories are: (i) access and location, (ii) gender and culture, (iii) perceived risk, (iv) education and upbringing, (v) and nuance (see Table 1). These categories helped give meaning to data gathered from the participants of this study. Transcribed interview responses as well as questionnaire survey responses from the participants were analysed against these categories. The Dutch school phenomenological data analysis has three distinct approaches to analysing data, which are; wholistic, selective and detailed (Reiners, 2012). This research makes use of the selective approach, which allows the researcher to extract essential statements gathered from participants – these are quotes taken from interview transcriptions as well as the questionnaire survey. It is these descriptive statements that analysed to attribute meaning to each by interpreting each statement using the 5 selected categories. These are then later used in the results and findings chapter.

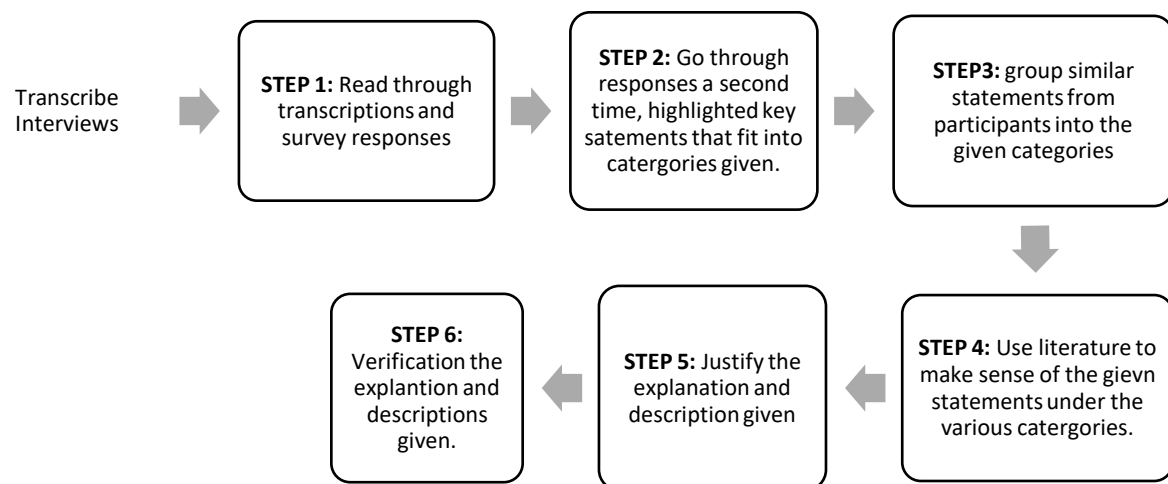
Table 1. Categories for data analysis

Criteria	Category
<ul style="list-style-type: none"> Information on where participant was born. Information on where participant was raised, grew up or has spent most of their life up until now. 	Access and Location
<ul style="list-style-type: none"> What the participant considers to be there culture. What the participant considers their cultural practice. Any affiliations so a custom or tradition that the participant partakes in. 	Culture
<ul style="list-style-type: none"> What does the participant consider as a risk in their environment where they live or areas that they grew up in. How these risks are linked to nature. 	Perceived Risk
<ul style="list-style-type: none"> Where the participant was educated. Where they learn about nature. 	Education and Upbringing
<ul style="list-style-type: none"> Any other significant factors that may have influenced the perception on nature. 	Nuance

Following transcription, a 6-steps process was used for in-depth analysis of participant responses. The process can be seen in *Table 2*. **Step 1** of the process was to read all the responses received from the different participants to become more familiar with what was said. **Step 2** and **Step 3** was to go through the data a second time, this time dividing the data into meaningful themes. and extracting key statements for participants’ responses. These statements were then grouped under the different category given in

Table 2. **Step 4** was to make sense of the statements that were placed under the different categories of *Table 2*. The way sense is given to these statements is not only through what is a known but also what is not known but can be linked to pre-existing knowledge (literature) (Reiners, 2012). **Step 5** and **Step 6** are the steps taken to justify all explanations and meaning given to different interview responses and then verify these explanations. Existing literature and theories about perceptions of nature, were used to justify and verify the new information gained from participants of this research. The theories and literature used come from both the theoretical framework and the literature review chapter of this research

Table 2. Data Analysis Process



3.6 Interpreting findings: An outline of themes

After identifying the key respondents and conducting both structured interviews (with 6 respondents, based on the structured interview guide) and questionnaire surveys (with the remaining 14 respondents), the next step was to transcribe and code all the data gathered. Determining what coding method best fits the study is essential (Saldaña, 2015). Coding can occur at almost any point of the research depending on the nature and goals of the research, however for this research, prior-axil coding was used during data analysis. The prefix ‘prior’ pertains to the fact that there were already existing theoretical assumptions that were used to analyse collected data (Grbich, 2013). These assumptions have been formulated by the researcher based on the social influences of perception of nature that were unpacked in the literature. These influences on perception of nature are categorised in Table 1 shown in the

previous chapter. The suffix ‘axil’ in prior-axil coding pertains to the fact that the collected data was analysed to see whether core themes resonated across data and produces patterns and or relations (Grbich, 2013). The established categories of *Table 1* provide the foundation of codes to which themes were generated during the data analysed. The themes that emerged from the coding, based on the categories in *Table 1* are presented in *Table 4* that follows. These themes formed the basis for discussing the findings of the research throughout the rest of this chapter.

Table 3. Themes based on influencing categories (listed in Table 1).

Category	Theme
<ul style="list-style-type: none"> • Access and Location 	<ul style="list-style-type: none"> • Urban (Suburb) • Urban (City centre/CBD) • Rural • Semi-rural • Farm • Mountainous • Forested
<ul style="list-style-type: none"> • Culture 	<ul style="list-style-type: none"> • Gender base cultural duties • Tribal culture • Global trends • Environmental influences
<ul style="list-style-type: none"> • Perceived Risk 	<ul style="list-style-type: none"> • Safety • Well-being • Crime • Support structures
<ul style="list-style-type: none"> • Education and Upbringing 	<ul style="list-style-type: none"> • School • Support structures • Subjects and activities

	<ul style="list-style-type: none"> • Teachers • Learning from home
<ul style="list-style-type: none"> • Nuance 	<ul style="list-style-type: none"> • Age • Health status • Personal goals and ambitions • Interests • Situational factors

Aside from the themes in *Table 3*, that were uncovered by giving meaning to data, both the HEP and NEP theories were coded and key themes that stem from each theory are noted in *Table 5*. The HEP and NEP theories are useful in discussing how certain perceptions of nature may translate to behaviours, actions and ideologies in society.

Table 4. Themes based on Theoretical Frameworks

Theory	Themes
<ul style="list-style-type: none"> • Human Exceptionalism Paradigm 	<ul style="list-style-type: none"> • Individual freedom • Minority rights • Material wealth • National sovereignty • Present generation • Determinism • Anthropocentrism and utilitarianism
<ul style="list-style-type: none"> • New Ecological Paradigm 	<ul style="list-style-type: none"> • Common good • Spiritual wealth • Global responsibilities • Future generation • Freewill/ agency

3.7 Reliability

Reliability and whether a study is replicable is a necessary concern for researchers (Lewis-Beck, Bryman & Liao, 2004). Research is considered more reliable and believable if the methodology is coherent and multiple researchers can conduct the same research and receive similar results (Lewis-Beck et al., 2004). For this research a simple 6-step process used for data analysis makes it possible for intercoder reliability. Additionally, the well-known Dutch school phenomenological analysis that was used for this research helps establish reliability further. Although many variations exist in literature, phenomenological analysis methods have become viable tools for doing research, which is likely to increase the replicability of research studies that incorporate them (Kleiman, 2004).

3.8 Limitations

This research is partly based on a qualitative study. This therefore means that the research is highly philosophical in nature. A qualitative research approach gives room for various interpretation which may become a limitation with regards to research reliability (Lewis-Beck et al., 2004:962). For example, some researchers could be idealist, and some may be relativist. Both schools of thought have different ways of creating generalizations and assumptions. The way of seeing the world, greatly impacts how data is interpreted. (Lewis-Beck et al., 2004). This difference of viewpoints bears implication to study replicability. For this research, a constructivist view is taken throughout the data analysis process. The focus here has not been so much on research that can be replicable, but more so on research that does more than provide partial truths (Lewis-Beck et al., 2004:962). This allows the study findings to be used in academic literature reviews, debates and discussions.

A second limitation may arise from the use of face-to-face interviews to gather data. These kinds of interviews have foreseen limitations including interrogation error, deviations from interview guide, interpretation error and recording error. (Mathers, Fox, and Hunn, 1998). Interpretation error is a foreseen research limitation because different schools of thought influence approaches to interpreting

research findings. findings. Moreover, deviating from the interview topic by asking question not on the interview guide, can be a limitation as it becomes time wasting and does not uncover the responses that may be beneficial to the research. However, a strict (or poorly designed) interview guide may also reproduce less engagement from the interviewees, leading them to make vague responses that are also non-beneficial to the research. In an effort to try and avoid these limitations in this research, the researcher tried to facilitate a conversation with interviewees rather than a traditional interview guided by a strict interview guide. The use of the Dutch school phenomenological approach to analyse data, was then followed by the use of existing literature and theories for justifying and validating findings. Additionally, a constructivist viewpoint of research was adopted.

The third limitation comes from the decision to conduct qualitative questionnaire surveys for the research, to supplement the data obtained from face-to-face interviews. The limitation of a questionnaire survey can range from; an inadequate understanding or missed observation of important nonverbal cues that could otherwise have been observed face-to-face (Mathers, et. al., 1998). Non-verbal cues stem could communicate one's emotions and behavioural expression in a way that cannot be understood or obtained from written text only. Other limitation of questionnaire surveys is that there is no control on where the respondent is being truthful in their responses (or if they are only writing down what they think the researcher wants to hear). There is also no way of monitoring how long the respondent took to answer the question(s) (Mathers, et al. 1998). The responded may have had ample time to think of or to tweak their responses. This does not allow for answers that are natural and non-premeditated for the purpose of this research. The questionnaire survey thus, only existed as a means to confirm what was already gathered from the face-to-face interviews.

Another limitation comes from deciding on what questions to ask in the questionnaire survey. The decision on which questions to include in a questionnaire survey is often based on research imposition. Simply put, a researcher has some bias as to what they may or may not think is an important question to ask. The obstacles become apparent when the researcher cannot probe further into a response given by a participant, as they would in an interview conversation (Ackroyd & Hughes, 1992). This just means that questions that are asked, need to cover as much of the research areas as possible. In this

case, the questions that were placed in the questionnaire survey were not only based on responses that emerged from face-to-face interviews; but also, on key themes that emerged from literature review. Existing literature helped ensure less bias during the process of determining what limitation to this research could've emerged from the sampling criteria being that of convenience. Convenience sampling in research usually make it harder to generalize findings. In this research convenience sampling was used based on access – the sampled group was merely those that attended the Matric EnWild nature immersion program. Whatever perceptions of nature that youth may hold based on the finding then becomes difficult to generalise across all youth in South Africa. Lack of generalisability is often a problem for qualitative studies that usually tend to have sample sizes that are too small. On the positive side, however, qualitative study exists to draw out themes that relate to broader issues and phenomenon in society (Rubin & Rubin, 1995), which makes this research design suitable for this research. Findings from this research on youth perceptions of nature does not exist to create generalisation over all South African youth but seeks to add onto already existing literature as well as foster ongoing discussions about youth nature perceptions and how these influence attitudes and behaviours about nature.

3.9 Ethical Considerations

Key considerations for the ethical research of human subjects that are observed include, all research participants -which are the youth of this study – will remain anonymous (should they choose to be) throughout the study, for privacy and confidentiality purposes. All the relevant study results will be made available to each participant as well as the organisation that has commissioned the research, in this case Rim of Africa and the youth participants. All participants also have the right to withdraw from the research at any time and each participant takes part in the study out of their own volition. The study deals with youth in South Africa whom under South Africa's National Youth Commission Act, 1996, are defined as being 14-35. However, no youth member under the age of 18 took part in this study. To avoid dealing with minors, whom in South Africa are consider persons below 18 (Strode, Slack & Essack, 2010) Consent forms were issued to each participant of the study as to be clear on the terms and use of the information that they would be providing.

3.10 Summary

This research makes use of a phenomenological data analysis method. This method was most popularized by Dutch scholars and makes use of both descriptive and interpretative aspects of the phenomenological data analysis approach. From the literature, it was established that one way of learning about youth perception of the environment is through the descriptive nature of how these perceptions come about. Another way is through interpretation of what perceptions may mean in society. Thus, by making use of semi-structured face-to-face interview as well as questionnaire surveys with participants from Matric EnWild, to gain data that allowed for both descriptive and interpretive analysis; a 6-step process derived from Kleiman's (2004) phenomenological analysis process, was used to analyse the data from the time it was received to the point where meaning was attributed by unpacking emerging themes (Kleiman, 2004). It was essential to acknowledge research limitations at this point for they inform the credibility of the findings that will follow in the discussion chapter. Suggestions to overcoming limitations have been presented, mostly to do with following tested guidelines from previous qualitative research done by other scholars, but also allowing for admittance to a possible skewing of data if any. It can be reiterated again that this research does not seek to generalise its findings among the entire population of South African youth, but rather to add onto existing research on youth perception of nature. With a constructivist approach this research does not stand as one that aims to be replicable but as a study that epistemologically aims to provide more than partial truth.

CHAPTER FOUR: FINDINGS AND DISCUSSION

4. Introduction

The raw data that was gathered in this study would be nothing without interpretation. In this chapter there is an in-depth analysis of all the data that was gathered from the youth participants, through interviews and questionnaire survey. The chapter begins by highlighting the importance of the findings to the study, followed by the various sections where the findings are presented from the study. Each section provides insightful quotes and draws back on what was said in other research in the literature review. Citing the importance and the usefulness of the findings. In conclusion a brief summary is given on the intentions of this chapter and what was done.

4.1 Diversity in youth perceptions of nature

The responses of previous participants of Matric EnWild nature immersion camp, provided great insight into youth perceptions of nature within the context of South Africa. It has been noted that a variety of social constructs influence the way one perceives nature. Some of these social constructs include race, gender and class. Others can include location and access to nature, education, upbringing. Because of these many different factors that can often reinforce each other in a single individual, perception of nature varies greatly. In order to gain the most diverse picture of youth perceptions on nature as well as some of the factors that may act on these perceptions, this research sampled a diverse group of youth. The profiles of participants are outlined in *Table 3*. The table highlights participants gender, age, race, year in which they attended Matric EnWild programme and the location in which the participant grew up in. These key factors were all used during the discussion and findings chapter.

4.1. Respondent profiles

Table 5. Profile of respondents interviewed in the research study

Respondent Code	Gender	Age	Race	Year Attended	Location of Matic EnWild Upbringing
Student 1*	Male	20	Coloured	2016	Cape Town
Student 2*	Female	21	Black	2015	East London
Student 3*	Female	20	Coloured	2016	Elsies Rivier
Student 4*	Male	22	White	2015/16	Drakensberg KZN
Student 5*	Female	20	White	2016	Grahamstown
Student 6*	Male	20	Black	2016	Khayelitsha
Student 7	Female	20	White	2015	Howick KZN
Student 8	Male	21	Other	2015	Cape Town
Student 9	Female	20	Black	2016	Cape Town
Student 10	Female	21	White	2015	Johannesburg
Student 11	Female	20	Other	2016	New Zealand
Student 12	Male	20	Coloured	2015	Cape Town
Student 13	Female	19	Coloured	2016	Cape Town
Student 14	Male	20	White	2016	Table View
Student 15	Female	20	White	2016	Grahamstown
Student 16	Non-Binary	21	Coloured	2016	Cape Town
Student 17	Male	22	Black	2015	Soweto
Student 18	Female	20	White	2016	Southfield
Student 19	Male	21	Coloured	2016	Cape Town
Student 20	Male	21	Black	2015	Johannesburg

() Indicates all the participants that took part in a face-to-face interview*

The respondents have all been kept anonymous and labelled each as “Student” due to the high volume of participants indicating this as their wish.

4.2 Findings and Discussion

The literature review and theoretical framework played an important role in establishing the themes that inform the findings of this research. The literature review was successful in uncovering social factors that influence perceptions of nature. Therefore, youth perceptions of nature are discussed within the framing of these factors. The two main theories of HEP and NEP are then used further to explain how, having certain perception of nature can translate into attitudes and behaviours within society. This was discussed, based within the context of South Africa's social and environmental landscape.

4.2.1 Perceptions of nature as influenced by access and geographic location

It can be said that the environment that a child grows up in, greatly influences them during later years. This is part of the ongoing nature nurture debate held by scholars (Moore, 2003; Plomin, 1994; Ridley, 2004). Linked to this, is the observation that access to nature and the location in which a child is born and grows up in, plays a role in formulating their perceptions. Perceptions in childhood that they may carry through their youth and eventually adulthood. The evidence gathered from the youth participants in this study would suggest this to be the case. The previous Matric EnWild participants perceptions of nature differed depending on where they grew up. Nature during the programme was experienced in different ways by the participants. Those that grew up in natural spaces were used to natural conditions and seemed more willing to return to nature even after the programme.

The following quote is taken from one of the participants of Matric EnWild who before the programme mentions that they grew up in a natural set up (Farm) for a few years and this they feel influenced their love for nature.

“For the first seven years of my life I grew up on a farm there was a lot of nature around me definitely influenced my appreciation and love of nature. After that we moved to town...Grahamstown in the middle of town and look [referring to looking out her window] see the side of the town and you can see the mountains side where there's nature around too much experience and you can walk out of town without too much effort so quite a good amount of

nature places you can go to... quite often I would go out and walk my dog. In the natural places.

[Student 5*]¹

The following quote is taken from another previous participant of Matric EnWild. From this quote it can be seen that this participant was fortunate enough to have a yard in the house where they grew up which provided that natural setup. This participant acknowledges that the yard, together with their moms love for planting and dad for animals, influenced their love for nature.

“... In our house we have a big tree in our back yard, and we have a lot of dogs. My mom is more a plant person and my dad are more like an animal person... I think that where we learnt our love for nature, we have 6 dogs and 1 cat” [Student 3*]²

The next quote from a previous Matric EnWild participant highlights how the participant was so used to being out in nature that they felt that they already knew what to expect from the programme beforehand. The participant also highlights a scenario where a girl that attended the trip experience the direct opposite of this (that is, that she did not know what to expect).

“The first time I was on top of the Drakensberg I was 12 my brother was 10. My dad is an entomologist, so he is out in the field a lot, so we had a lot of exposure to that. My mom likes hiking as well... I already knew what I was in for [referring to the Matric EnWild programme]. When you don't know what to expect it could be harder. Like in 2017 we had one girl drop out on the first day. It's a long steep up hill and its very hot in December” [Student 4*]³

Even though humans are dependent on natural element on a constant basis (Green, et al., 2015); an individual's location impacts how much a part of nature they feel and how they behave because of this attachment (or lack thereof), or their ideologies towards nature (Vining, Merick & Price, 2008). What an individual may feel are important aspects of nature or whether nature is in a crisis can directly be linked to the location in which they grew up in (Hunter et al. 2010). For example, growing up in a farm

¹ Student 5* (30/08/18, Rhodes University Grahamstown campus)

² Student 3* (20/08/18, University of Cape Town upper campus)

³ Student 4* (28/08/18, University of Cape Town upper campus)

like [Student 5*], may play such a significant role in shaping one’s outlook on nature. One may still find themselves actively seeking to connect with nature (e.g. through activities in nature), even a few years after relocating to the city. Similarly, [Student 4*] agrees with this opinion, having grown up near the Drakensburg mountains and being outdoors a lot with their parents.

Access to more natural spaces also plays a role in one’s outlook towards nature, for example, [Student 3*], who found it difficult to recall any natural spaces around them growing up, spoke of the little nature near the house. Therefore, an attachment to nature could not, for them, be created from first-hand experience in the same way as in [Student 2*]’s upbringing. [Student 4*] suggests that being exposed to nature when you are previously not accustomed to it (perhaps from having grown up in the city suburbs, thus having little to no natural spaces growing up), may be overwhelming for some. [Student 4*] recalls a fellow participant in the Matric EnWild programme that dropped out after one day, citing that she viewed the experience very differently to the rest. Despite not having much access to natural environments, one could still cultivate a connection and respect for nature in other ways. [Student 3*] suggest that it was probably their parents that made them, and their siblings love and appreciate nature. This alludes to the strong influence of upbringing and parental (familial) influences on perceptions of nature, which will be discussed in depth later in this chapter.

Indicate what best describes the area in which you were raised.

16 responses

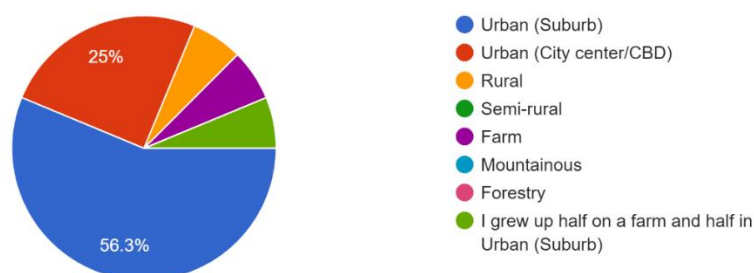


Figure 1

Bar graph indicating the percentages distribution based on the area where previous Matric EnWild participants grew up.

How easy is it for you to access nature where you were raised?

16 responses

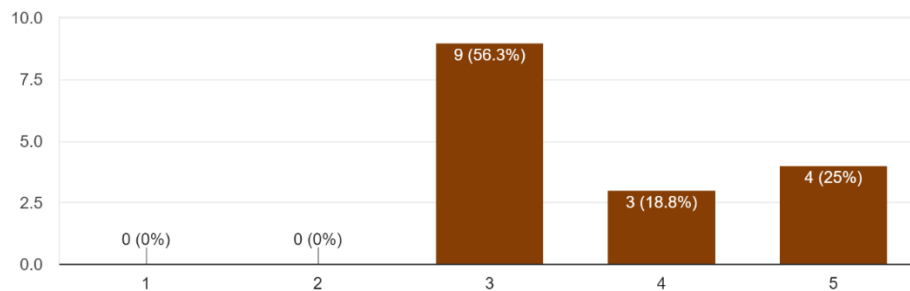


Figure 2

Histogram representing the percentages to responses of a scaled question on how easy it is for previous Matric EnWild participants to access nature where they grew up, where 1 was set at very difficult and 5 at very easy.

The findings from responses gathered from participants who were interviewed were further substantiated by responses to the questionnaire survey. From the respondents that took the survey (16 students), 9 (56.3%) of them acknowledged growing up in an urban suburb and 4 (25%) in an Urban city centre (Figure 1). Out of the 16 respondents 9 (56.3 %) reported that they were living in areas that are in between very easily accessible to very difficult to access nature (Figure 2). What should be noted here is what students defined nature as. This paints a clearer understanding of why some might feel that nature is not easily accessible where they grew up.

The following are a few quotes from the questionnaire survey taken by previous Matric EnWild participants, that show the definitions given to nature by the participants. There is a consensus amongst participants as to the definition of nature. Therefore, when analysing whether, one feels they grew up or had access to nature growing up, a factor that may impact their perception of nature as a youth; there was no real outlier as most participants understanding of nature was similar.

"All organic matter [or] non-synthetic environment [or] the collection of land and whatever the lives or grows on it and contains life giving and flowing energy." [Student 7, 10 and 13]⁴

⁴ Student 7, 10 and 13 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

“Non-man-made [Or] Nature is anything that has not been made or changed by humans.””

*[Student 8, 12 and 15]*⁵

“Physical work which consists of landscapes, seas [or] trees, plants, animals’ rivers, mountains s” [Student 12, 16 and 18]⁶

“Everything around you. I view nature as the untouched lands and places that have not been manipulated or altered in any way. It is how it was many years ago and remains in the same condition.” [Student 14]⁷

Out of 16 respondents, many lived in an urban setting. They would have considered many aspects of their surrounding as manmade and therefore, according to the insight gathered by what the youth believe to be nature, these respondents would not classify their surroundings in urban setting as nature. This may create a feeling of separateness from nature. Vining, Merick and Price (2008) suggested that even if a person may live separate from nature; because of one’s inevitable interaction with nature at some point in life, they should therefore not be considered separate from nature. A simple reliance of freshwater that comes from mountains that eventually flows down to a city where people are depended on it for their daily water supply, is enough to suggest this connection that one has with nature (Green, et al, 2015). Therefore, even though most people, especially in urban settings consider themselves distinctly removed from and separate from nature, this should not be the case. This finding confirmed how location and access reinforce each other in influencing one’s feelings and perceptions of nature.

4.3.2. Perception of nature as influences by culture and gender

It has been noted that cultural dynamics and cultural constructs such as gender play a role in the way one perceives nature. As discussed previously, we have seen a physical closeness to nature (geographic location and access) may create an emotional closeness to nature. Culture influences this closeness to nature in both aspects of closeness. For example, cultural can influence what an individual may find to

⁵ Student 8, 12 and 15 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

⁶ Student 12, 16 and 18 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

⁷ Student 14 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

be an important aspect of nature and what they deem meaningful in nature, as with the example given by Student 2 that follows.

The following two quotes, taken from an interview with one of the previous Matric EnWild participants, shows how a cultural aspect (such as a cultural ceremony in nature) as well as culturally defined gender duties, influence how one perceives nature.

“...I do know that when there are some traditional ceremonies there is medicine extracted from the forest. For the Xhosas there are many things we get from nature. I was raised by my grandmother, but I never went to the doctor, my grandmother used to take from the forest (she mentioned some Xhosa medicines from nature that I couldn't quite get towards the end). Xhosa people like all black people we are attached to nature”

“... all I knew that if I said to my grandmother, I'm sick she would go and boil this leaf and I'd be fine. I didn't understand it then” [Student 2]⁸*

Based on culturally specific gender roles one may find distinctive meaning in certain aspects of nature and what they deem important in their day-to-day lives (Hunter et al., 2010). Therefore, it can be argued that culturally defined gender roles affect the way one perceives nature.

The following two quotes by [Student 3*] describes a mother cultivating the land, which allows her to eat healthy but perhaps also to keep her family healthy as part of her culturally assigned maternal duties. It further indicates that there is an age factor involved, as a child is not seen to adhere to the same duties as the youth or an adult. Growing up in an area with cultural duties in nature, especially those that are defined through gender, may shape the way one appreciates nature or what one appreciates the most about nature.

“...she plants vegetables like basil, tomatoes, spinach, onions, etc. it usually depends on the season and the soil. We always have herbs. She is into healthy eating.”

⁸ Student 2* (16/08/18, Cape Peninsular University of Technology district 6 campus)

“No [referring to whether or not they helped out in the garden], I played a lot outside when I was a kid. But now I have long days, get home late.” [Student 3]⁹*

Culture also has influence on the ideologies that a whole group of people may have towards the environment (Horowitz, 2001). If historically nature is considered a large part of a group’s cultural activities, that group is more likely to perceive nature as part of their heritage (Horowitz, 2001). [Student 2*] suggests how nature is very important amongst Xhosa people because many traditional ceremonies occur in nature. They give a case where individuals may extract medicinal extracts from nature and then used in traditional ceremonies. [Student 2*] acknowledged that this is what they observed in other black cultures where nature is a vital part of many ceremonies. [Student 2*] also indirectly points to the notion of culturally defined gender roles. Where it is a woman (grandmother) that takes care of the sick or a woman that oversees herb harvest. Just off cultural gender roles alone, it is evident how one’s perception, attitude and behaviour towards nature is shaped. Women hold distinctively different relationships with nature than men. They are seen to use nature for more nurturing duties, whilst men for more controlling or ownership roles (Sachs, 2018). Just as water from rivers is perceived as the most important aspect of nature to women living in the rural areas as it is their main resource for taking care of the households (Hunter et al., 2010), similarly, [Student 3*] perceives vegetation from nature as quintessential for healthy living as their mom grew a vegetable garden and used the vegetables to cook healthy meals for her family. This could be linked to the mother’s role of care giver – by spending her days outside gardening and harvesting vegetables to cook, this would probably be done simultaneously to watching the children who enjoyed playing outside as [Student 3*] mentioned.

The following two graphs generated using responses from the questionnaire survey, further help to understand how cultures in certain areas, in other words practices and the way of life, impact youth’s outlook of nature.

⁹ Student 3* (24/08/18, University of Cape Town upper campus)

Where are you from?

16 responses

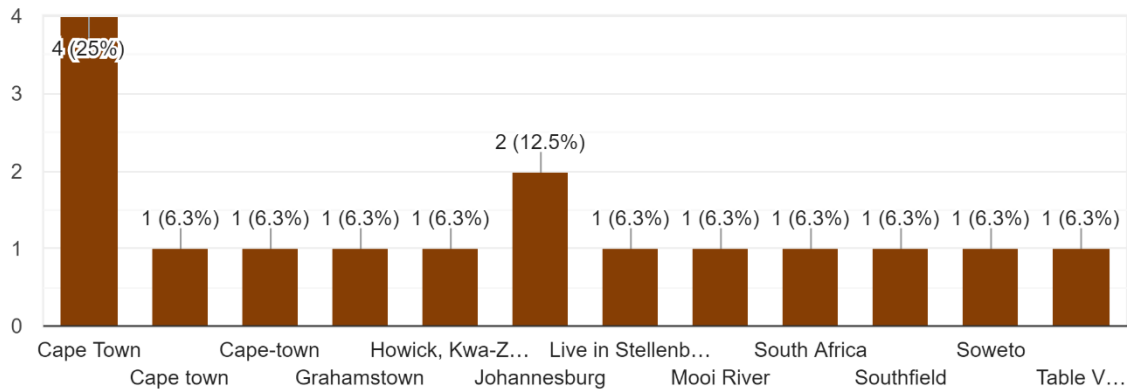


Figure 3

Histogram representing the distribution of previous Matric EnWild participants based on the city where each one grew up.

Which of these threats concern you the most?(Select all those that apply)

16 responses

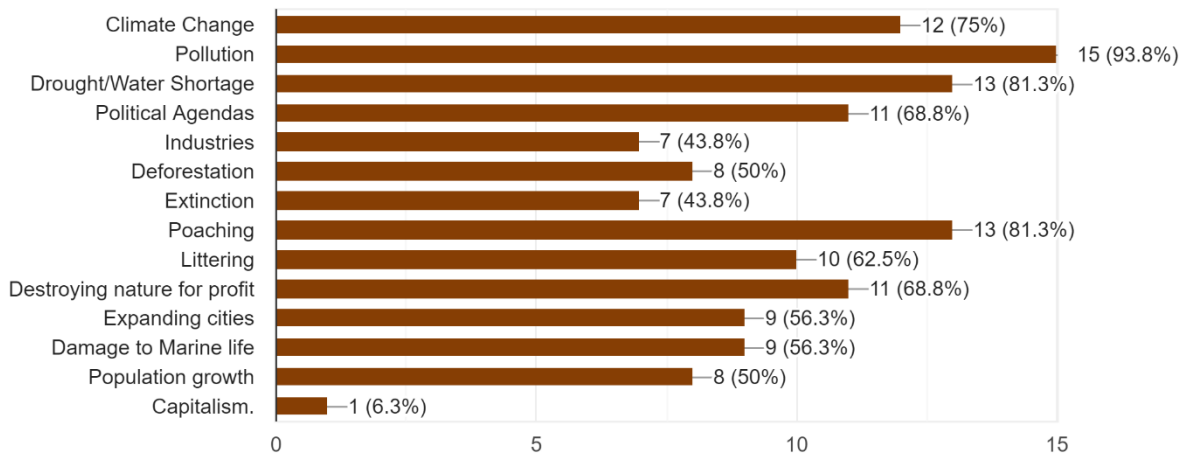


Figure 4

Bar graph highlighting the number as well as percentage of previous Matric EnWild participants, according to what each one considers personally to be the most concerning environmental threat.

Culture may be considered the way of life for groups of people in a society. It includes the customs, ideas and behaviours of members of an area (Jenks, 2003). In the survey, 7 of the 16 total participants

directly indicated that they stayed in Cape Town. Whilst another 3 were more specific in the suburbs they grew up in; Elsies Rivier, Table View and Southfield (Figure 3). Out of the students, 13 responded to water shortage/Drought being a great environmental concern (Figure 4). 7 out of the 10 were the students from and around Cape Town. Those from Cape Town that indicated that water shortage/drought is of great concern, can be explained by the protocols brought in by the city of Cape Town to try and lower water usage. These protocols were based on the water crisis that was being experienced in the city in 2017 and 2018. Low level of rain falls saw dam water level drop, causing metropolitan panic around Cape Town (Gosling, 2018). Through various campaigns, it can be said that it became part of a city culture to save water. Interesting to note that 3 participants from Cape Town ([Student 8], [Student 9] and [Student 16])¹⁰ did not see water shortage/ drought as a vital environmental problem. However, all 3 students did indicate that “political agendas” were one of the main concerns when it comes to environmental problems. Some Cape Town residents have been blaming the city’s water crisis on the government, where their priorities do not lie on the crisis itself but on what caused the crisis. Many residents feel poor management and hidden agendas by the city government was the cause of the water crisis (Moore, 2018). This is a case of cultural defiance where, some might question cultural practices, norms and or beliefs (Halasa, Plas and Willemsen, 2002). In turn this also shapes one’s perceptions, including those towards nature.

4.3.3. Perceptions of nature as influenced by perceived risk safety and well-being.

In 4.2, it is discussed that geographic location of one’s upbringing plays a role on how they perceive nature. Where one grows up is highly dependent on family income and socio-economic status. Thus, socio-economic status, which affects one’s upbringing can influence one’s perception of nature through attachment given to certain natural environments (Petrosillo, et al., 2007). Attachments or a dislike for nature may be influenced by perceived risk and safety in nature, growing up. In other words, what one perceives about nature is influenced by their perceptions of risk and safety in nature (what they find

¹⁰ Student 8, Student 9 and Student 16 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

risky in nature and a safety hazard and what they do not). Perceived risk and safety are dependent on an area one grows up in based on their socio-economic status.

The following quote taken from previous Matric EnWild participant, highlights what the participants perceives as a risk or safety hazard in nature. The degree to which youth perceive risks and safety in nature can impact their ideologies and attraction towards natural environments.

“There were quite a lot, but in the water at that time there was only 1. We got cornered and he [referring to a hippopotamus] kept coming closer and closer. The guide had to ram the boat into the reeds and told us to jump out; I had to even swim out of there. It was unexpected and fun. It’s probably what made the whole community service fun.”

[Student 1*]¹¹

The next few quotes are taken from the interviews of previous Matric EnWild participants, showing how socio-economic status can play a role in perception of nature. Those from a higher socio-economic status (or family income bracket), or even just have more opportunities to access nature in a safe manner, may perceive nature more positively due to many more positive experiences in nature. This works to build an attachment towards nature.

“It was a very expensive private school I went to, ended up there because my mom was a music teacher. Because she was teaching there, my fee was heavily discounted. It’s not a school we would have been able to afford otherwise.”

“... because I am so used to the mountains already. I think for those not used to the mountains they will gain a lot from there. I just went there to go see the Seidenberg and to go hike with my friends. It was just more mountains for me, and I was happy with that”

“Our school was different with that; we had a very good reputation. We did hikes into the Drakensberg mountains for 5 days with the grade 10 kids. This opens a lot of

¹¹ Student 1* (16/08/18, University of Cape Town upper campus)

people eyes to the mountains and what they can actually achieve when they get to the mountains” [Student 4] ¹²*

Those from a lower socio-economic status (or family income bracket), often have less opportunity to access nature safely and may perceive only negative aspects of nature, thus lessening their attachment to nature. An example can be seen through the experiences of [Student 3*] and [Student 6*].

“Because I live in gangster area, I don’t think I am exposed to my environment because we don’t really go outside...”

“I have never experienced [nature] quite before until that moment we went for the camp in matric...”

“There is constant noise, constant pollution, I can’t go outside and just take a deep breath because I don’t know what I’ll be breathing in.” [Student 3]¹³*

“I went to school in Khayelitsha, we did not take part in any school trips beyond sports because it was dangerous... There was a lot of litter and pollution where I stay”

“... I am definitely mindful of my pollution and I use water saving measures as a means to fight environmental problems.” [Student 6] ¹⁴*

Perceptions of nature, and the activities one partakes in in nature, may be influenced by the perceived risks attached to certain natural areas (Zipperer, 2007) or their cultural spiritual and religious beliefs about nature (Sachdeva, 2016). [Student 1*] recollection of community service experienced in nature was not tarnished by the fact that they encountered a hippopotamus that could have been perceived as a risk, [Student 1*] did not perceive any great danger from the experience as they are quoted saying that

¹² Student 4* (24/08/18, University of Cape Town upper campus)

¹³ Student 3* (24/08/18, University of Cape Town upper campus)

¹⁴ Student 6* (18/10/18, House in khayelitsha)

it was a fun experience and that is why they enjoyed this aspect of nature. Thus, their risk perception informed their perception of their experience in nature. Similarly [Student 4*], who had the opportunity to attend a very wealthy private school located near the Drakensberg where they also lived, had ample activities in nature offered by their school. [Student 4*] mentions the fact that their school afforded pupils' various hikes that changed the way students viewed nature (mountains), as it became a way of life for most of their school years. [Student 4*] had the privilege of spending as much time in nature without any mention of perceived risk, such as crimes and violence associated with the outdoors. [Student 4*]'s perception of nature was shaped by this experience, stating that he is "used to the mountains".

On the contrary, [Student 3*] having grown up in an area full of gangsterism, attached a lot of risk to being outdoors in nature. [Student 3*] was prohibited from spending much time outside. They mention that the area they live in is constantly noisy and constantly polluted and that being outside is not rewardable or favourable for them. [Student 3*] grew up in Elsiesrivier, which was predominantly a coloured people suburb during Apartheid in South Africa. Elsiesrivier has been home to predominantly low to middle income households. Poverty and drug abuse have been some of the main reasons attributed to a high crime rate in the area since the 1980's. Years later crime is still very rampant in Elsiesrivier, according to crimestatessa.com (2018).

[Student 6*] grew up in a township like Khayelitsha and went to school there. Like [Student 3*], they acknowledge that the environment they grew up in was not safe for a lot of outdoor activities. [Student 6*] mentions the fact that there was a lot of litter and pollution where they grew up, eluding to the fact that being outdoors could potentially pose a risk to well-being and health. Pollution is perceived as a great threat to nature and the environment as [Student 6*] mentions the fact having grown up in that situation, they are more cautious of polluting.

As previously mentioned, location and upbringing are often at times based on socio-economic status. However, beyond social-economic factors such as education, income, gender and conservative political views; race is as much of an important independent factor to look at when understanding groups or an individual's relationship with nature (Marcias, 2015). Often it may be that race is a determiner of

one's socio-economic status or one's location and upbringing. In South Africa because of apartheid this makes sense. Therefore, perceived risk and safety that youth like [Student 3*] and [Student 6*] have towards nature, can be understood not only through their culture, spiritual and religious beliefs, area of upbringing and location; but their racial and ethnic affiliation as well. How one judges the dangers of nature or how threats in nature affect one's well-being, in time forms their perception of nature (Fragouli & Theodoulou, 2015).

4.3.4 Perceptions of nature as influenced by education and upbringing

In 4.3.2, it was discussed how socio-economic status plays into several factors (including location and access) to influence perceptions on nature. Socio economic status plays a role on where one grows up and where one is educated (Petrosillo, et al., 2007). Upbringing and education are two of the other important factors that influence perceptions of nature. Educational level and educational activities at school plays a role in the way students understand nature and to what extent they are interested and concerned about nature, as was shown by the example given by [Student 4*] in the section 4.3.2. Education may also determine how one understands their impact on nature, making them more conscious of their environmental footprint (Petrosillo, et al., 2007). How environmentally aware or conscious the youth are may depend on their upbringing and level and quality of education.

The following quotes are taken from previous participants of Matric EnWild, showing the education on nature each participant received growing up and the different location this education was received. The education is shown to have played a role in the perception that each participant has of nature.

“Basically, in school and community service because we were forced to do it. I did some community service in...cleaning the water hyacinth. We did the community service with an ecological company”

“Yes, that particular one I would do without being forced because it was quit fun. The others I have done were not that fun...” [Student 1] ¹⁵*

“...Not really, maybe Biology 3, 4 years ago. But there was nothing really that stuck that I remember about saving the environment. We did have recycling bins in school, but student did not take them seriously. There weren't really any initiatives, but I don't really like littering or people who litter.” [Student 3] ¹⁶*

“There is a big angle that our school takes. They had auto pursuits, like canoeing, climbing and running; and you got awards for that and you could get colours and honours. There were like 30 different awards you could get”

“But then the school is big enough to attract the right crowd, i.e. the sporting crowd, academic crowd, the nature crowd. But then again because of the proximity to the mountains there is always something to do with nature like hiking, exertions etc.” [Student 4] ¹⁷*

“...I did life science at school so that focusing on nature and things. I also did geography and for geography we had a field trips where we went to the beach for the day and we look at the rocks...we had some outings [referring to grade/class outing], one of the outings we went to Grahamstown mountains outside Grahamstown. Called drive mountains and did sorts of hike activities on the mountains. And another time we went to a town called Hogsback. Which is near Alice. We went outdoors education...where we went and hiked...”

“Am definitely passionate about environment and outdoors and nature things. As part of the Rhodes university mountain club...” [Student 5] ¹⁸*

Having activities in nature and participating in those activities, allows for one to understand nature better and the impact that they have on nature (Petrosillo, et al., 2007). Most students interviewed, had

¹⁵ Student 1* (16/08/18, University of Cape Town upper campus)

¹⁶ Student 3* (24/08/18, University of Cape Town upper campus)

¹⁷ Student 4* (24/08/18, University of Cape Town upper campus)

¹⁸ Student 5* (30/08/18, Rhodes University Grahamstown campus)

in common the fact that their school's ability to host activities in nature, made them understand and become more aware about different aspects of nature. [Student 1*] mentions the fact that their school did community services in nature and that they were compulsory. Be that as it may [Student 1*] enjoyed some aspects of the community services, clearly stating that they would still be repeating such activities in nature even if they were not forced to do so. [Student 4*] explains how fortunate the school they attended was, to be near a mountain range. The school they attended also afforded students the opportunity to take part in a variety of activities in nature. Chapman and Sharma (2006) argued that it is not through theoretical education alone but through constant practical learning that in turn helps form a strong connection and positive perception of nature. [Student 5*] also acknowledges how practical activities beyond what was learned in classrooms shaped their perception of nature. Hiking and traveling a lot to hiking destination in nature during school years, made [Student 5*] fond of such activities after leaving school. A strong positive perception of nature that is developed during early years of life is not easily changed during later years of one's life (Keliher, 1997).

School is not the only place that one can receive education about nature. In fact, Chapman and Sharma (2006) notes that formal education and what is learnt from it, can be contradicted by the things that are learned prior to or outside of the school. For example, [Student 3*] stated that even though they received education about the environment from a school subject like biology, "nothing really stuck" that she would remember about protecting the natural environment. They also point out the fact that the school had recycling bins that no one paid attention too. Despite the apathy at their school towards recycling and littering, [Student 3*] mentions that they do not like littering or people who litter in general, eluding to the fact that it was not the school that influenced this outlook but maybe rather something(one) else externally.

The following graphs generated from the survey done in this research, help showcase which students had previously partaken on an outdoor adventure or educational programme with their schools. As well as responses to whether or not previous participants of Matric EnWild have since returned back to nature after completion of the programme.

Did your school partake in excursions/outings/journey programmes in nature?

16 responses

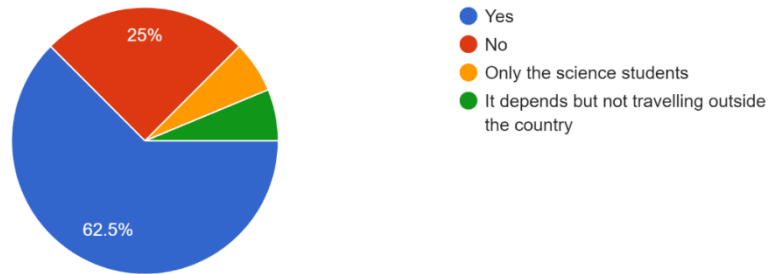


Figure 5

Pie Chart showing the percentage of participants that took part in an outdoor programme with their schools prior to Matric EnWild

Have you been back in nature after completing Matric Chill-Out/Matric EnWild programme?

16 responses

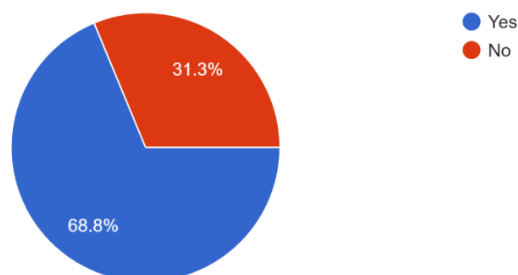


Figure 6

A Pie Chart highlighting the percentage of participants that have since returned into nature after completing Matric EnWild in 2015 and 2016

Data taken from the survey answered by students shows that 75% (12) agreed to having some form of outing/ exercises and or journey programme at their previous school, even if it was for specific subjects only (Figure 5). The following quotes from the survey taken by previous participants of Matric EnWild, helps showcase some of the activities that were done in nature as students in school.

“My school had a program called “outdoor pursuits” that was run by the post matric GAP students (can google ‘Treverton post matric’ to find out more info if necessary) Basically

once a week every week from grade 8-10, you did a form of outdoor activity - canoeing, rock climbing, river rafting, hiking, team building exercises, obstacle courses and sometimes even boot camp level fitness. We also had an annual 'big excursion' that was compulsory in grade 8,9 &10. It was five days long and involved carrying everything you decided to pack (which I obviously knew from my hiking experience) but came as a surprise to very many people."

[Student 7] ¹⁹

"We had camps and hikes that would happen yearly, there were also outings that were hosted by a teacher who particularly loved nature." [Student 8] ²⁰

"At primary school each grade went on an outing out of town for two to three days. These included a trip to the beach, visiting Addo Elephant National Park and wildlife rehabilitation centres and going to a farm that has hiking trails. These trips usually included team building activities, a day hike and a talk/lesson about the area including nature and history."

"At high school I went on day trips to places out of town, but these were focused on team building rather than on nature. I was however part of the school camping club which went on trips to various places including Hogsback, the coast and the Karoo. I was also part of The President's Award which requires participants to do an adventurous journey for each level for which I hiked various trails in the Eastern Cape." [Student 15] ²¹

The lingering effect of outdoor education activities in nature could suggest how a high percentage of students (68.8%, see Figure 6) return to nature activities even after completing the Matric EnWild programme. Former life experiences play a role in current consciousness and activism in nature (Keliher, 1997). Youth that are educated in schools that use outdoor programmes in nature as a means for learning, are impacted in a different way to those that are not. It appears the love, understanding

¹⁹ Student 7 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

²⁰ Student 8 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

²¹ Student 15 (Online survey, conducted between the 13/10/2018 – 29/10/2018)

and appreciation for nature begins with such outdoor learning programmes during school. However, school is not the only source of education growing up. Location and the area that youth may grow up in, shapes their understanding, views or ideologies of nature, in other words their perceptions of nature.

4.3.5. Perceptions of Nature a matter of nuance

Everyone is different and no matter the influences that impact one's perception of nature, perception may still differ from one individual to the next. It is the subtle differences in social, economic and cultural backgrounds that have distinct influence on perceptions of nature across individuals (Adam & Savhl, 2010).

The following are quotes taken from Participants of Matric EnWild, that help demonstrate the subtle differences in the influential factors that play a role on the way nature is perceived.

“ ...I could only see as far as my eyes could show me. All I knew was East London, my definition of success was what I could see in East London, and my definition of living was what I could see in East London. So, when I left, I saw a whole new world of possibilities, my little team that I grew up in is not the end, there is so much more, I could be anything. When you're standing there in those mountains, I could see that I'm such a small person and there is such a big beautiful world and I shouldn't take things to seriously... ” [Student 2]²²*

I got a scholarship from an anonymous donor granted to a South African citizen under 25. It was up to 20 000... So, they paid 20 000 for whatever expedition you proposed. I went to Nepal for 2 months and Thailand for a month. Hiking from town to town. Nepal is famous for its trekking; I flew to the southwest corner and walked from town to town. [Student 4]²³*

²² Student 2* (16/08/18, Cape Peninsular University of Technology district 6 campus)

²³ Student 4* (24/08/18, University of Cape Town upper campus)

“... I was part of president award programme... I don't know if you know about it. Its youth empowerment program where you do things like community service and sport culture activities and there is an extra component called the adventure journey. There are three different levels there... There are certain number of hours for each level. And each adventure journey I went on a hike. So essentially, I went on three hikes. I did before the matric chill out and those experiences definitely added to my love for the outdoors.” [Student 5]²⁴*

Both [Student 4*] and [Student 5*] were given the opportunity through various rewards, to take part in programmes and activities that changed their perception of nature. Even though both programmes involved nature, the subtle differences were that both students grew up in different environments and they would have been coming into the programmes already with their own predispositions about nature. [Student 2*] had a closed-minded predisposition of the world and being exposed to the Matric EnWild programme changed this. The community that [Student 2*] was from in East London did not prepare them to view the world as much as being out in the mountains did. Usually something is not a concern to you until it affects you directly. This bares true for aspects of nature, until you experience them, they are distant theory (Hunter et al. 2008).

The following quotes are taken from interview responses by previous Matric EnWild participants, when they were asked if they are involved in any activities that fight to protect nature.

“If I was asked to, I would probably participate. But I don't think I would go out of my way. If it came across, I'd probably do something about it or help someone who needs help. I would definitely like to be involved with the environment, like going out there.” [Student 1]²⁵*

“Yes, we know what we are doing is wrong, but we are not doing anything about it, because we don't see the results. So, a little bit of education to the people, every time you do this, this happens, and every time a million people do this, this is what

²⁴ Student 5* (30/08/18, Rhodes University Grahamstown campus)

²⁵ Student 1* (16/08/18, University of Cape Town upper campus)

happens. Maybe then people will get a little scared. For example, the water crisis people got scared when they would tell us our days were so close and people started saving water. so, when we get scared, we start doing ...” [Student 2]²⁶*

Both [Student 1*] and [Student 2*] believed that it is right to be concerned about nature and be actively involved in nature’s protection. Each acknowledging a level of doing so only when things concern them, however their perspectives differed. [Student 1*] on a personal level suggested that they would not actively get involved unless asked to do so. [Student 2*] expressed the fact that people only try to get involved in protecting nature, only during a crisis. [Student 2*] felt this should not be the case as people are aware when they are doing harmful things towards nature.

Even though there are distinct factors that influence one’s perception of nature; based on context and the degree of influence from these distinct factors, perceptions of nature may differ amongst youth. These are the so-called nuances that can be found in youth perception of nature. Regardless of such nuances that makes one person’s perception of nature different to another, there are clear traits in various perceptions that can be placed into one of two categories, Collectivist and Individualistic perspective. The impact to nature that these perspectives of life in general have, can be made sense of by two theories. Individualistic perspective by Human Exceptionalism Paradigm and Collectivist perspective by New Ecological Paradigm.

4.3.6. Making sense of perceptions: Theoretical outlook: Human Exceptionalism Paradigm and New Ecological Paradigm

Various perceptions were held by the students that took part in this research. It has been acknowledged that there are nuances that influence the perception of nature held by these students, however beyond these nuances’ students seem to hold many similarities with their perceptions. It can be said that no student had a perception of nature that cause them to behave in a manner that was selfish towards nature., as would be described by traits of the HEP. Traits such as individualistic ideologies that create selfish behaviours stemming from a belief that nature exists only for human use.

²⁶ Student 2* (16/08/18, Cape Peninsular University of Technology district 6 campus)

The research postulates that this is because most student participants are educated enough to know that there are in fact problems that exist in nature and that resources are not unlimited.

The following graphs generated from the survey response by previous Matric EnWild participants, helps to show the attitudes and behaviours that the youth have towards nature, based on their perceptions of nature. Such attitudes and behaviours are what can then further be explained by the HEP and NEP theories.

Are you aware of any threats against the natural environment in South Africa?
 16 responses

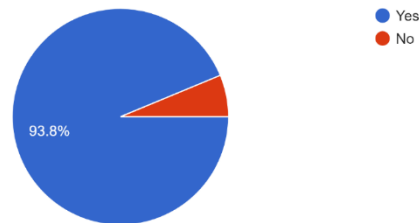


Figure 7

Pie chart depicting the percentage of previous Matric EnWild participants that are aware and those that are unaware of threats towards nature in South Africa.

Which of these threats concern you the most?(Select all those that apply)
 16 responses

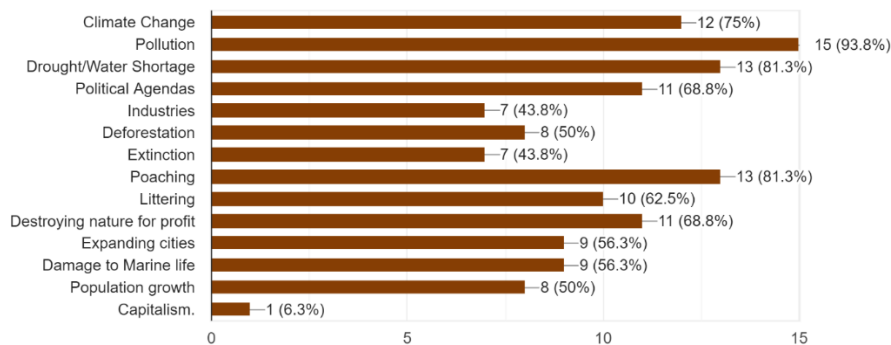


Figure 8

Bar graph showing the threats toward nature in South Africa and the percentage and numbers of previous Matric EnWild participants that acknowledge each issue as a threat.

Do you consider yourself a nature activist?

16 responses

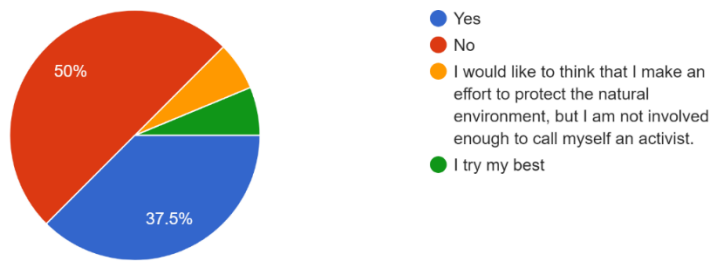


Figure 9

Pie chart depicting the percentage distribution of previous Matric EnWild participants that consider themselves nature activist.

What are you currently doing to combat these threats? (Select all those that apply)

16 responses

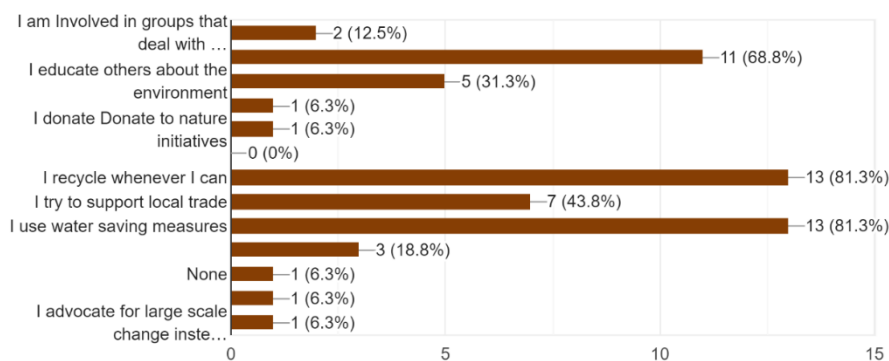


Figure 10

Bar graph showcasing what Matric previous EnWild participants are currently doing to combat threats against the natural environment.

Out of the 16 students that completed the survey, all but 1 respondent answered yes to the fact that they are aware of a threat against the natural environment in South Africa (Figure 7). There were various things that concerned students as a threat to the natural environment (Figure 8). But the most interesting aspect to note was 15 out of 16 students, identified pollution as a great environmental concern. A further 12 out of 16 students mentioned climate change as a great concern, 11 students mentioned political agendas as the implicating factor in the destruction of nature, 10 students out of

16 mentioned littering as a concern and 13 students out of 16 mentioned poaching as a major concern. Most students acknowledged that they are concerned about the impacts that human have on nature, leaning towards the NEP theory. The NEP theory states that one recognises that there is an interdependence between them and nature, causing them to have an attitude or behave in a manner that reflects this (Dunlap, 2002). This is confirmed by the fact that even though 50% students did not feel that they were nature activists (Figure 9), the answers that were given to what they actively do to combat concerning threats to nature, suggest that the awareness and the urge to do something towards protecting nature, is there (Figure 10). Notable response was that 11 students were mindful of their pollution, another 13 said that they recycle whenever they can and 13 also indicated that they use water saving measures. Overall out of the 16 students that responded to the questionnaire survey, only 1 responded that they do nothing towards protecting nature. Students that were interviewed face to face also acknowledged that they may actively do things towards protecting nature, as they are aware of threats concerns against nature.

The following quotes are taken from the interviews of previous Matric EnWild participants and helps show how different participants are conscious about nature issues, and the attitudes, behaviour and action these participants have towards issues in nature.

“I feel like I do try [speaking on environmental activism] but not hard enough. I’ve joined things where I’ve gone to talks. And I also think it’s important to tell people don’t do this and that because the environment is failing...” [Student 3*]

“I’m on the green campus initiative for the rest, but it is very in active. I just try to do it on a personal level, try to cut down on plastic as much as possible. Making a difference on a large scale seems daunting” [Student 4*]

“... I would say that I am mindful of pollution, but sometimes it is hard you know... I do also water saving measure, especially now when we are in crisis” [Student 6*]

These responses suggest that there is enough awareness that would refute the HEP theory amongst them. The different social factors like location, culture, risk, education and nuance; that influence one’s

perception of nature, would be enough within the current landscape of South Africa to deter students away from being selfish toward the environment. The theory of NEP best fits to explain the meaning behind the youth perception of nature as it would explain the following. There is an understanding of common good and a global responsibility amongst the students that exists towards playing a role in nature protection. There is a level of guilt expressed by students that may feel that they are not doing enough or are doing nothing to prevent harm to nature. There is a deep understanding of nature to the point that students understand that nature does not exist for the exploitation of humans and natural resources are not unlimited. Through the constant interaction with nature, most students developed a bond or a rather a respectful relationship and love for nature. The positives of the relationship are what allows the youth to exist unselfishly with nature. This is good for the future generation of South Africa. As the future of South Africa is reliant on this positive relationship. NEP is driven by a pro-ecological world view (Dunlap, 2002). Therefore, using this theory to explain the meaning behind South African youth perception of nature; it can be suggested that the youth exist as part of a universal unit with the behaviours and attitudes towards nature that stems from their perceptions. As future political leaders, consumers and decision-makers of the country, South African youth would in future, work with other world leaders to combat environmental issues.

4.4 Summary

The findings in this study were made sense of using existing literature and theory. Literature has shown that there are five key social factors that influence perception. The responses from each participant of the study are analysed against these five factors. The results indicate that youth perceptions of nature are indeed influenced by one or more of these social factors. The behaviours and attitudes of youth towards nature, based on their perceptions, are further highlighted. Both the Human Exceptionalism Paradigm theory as well as the New Ecological Paradigm theory by Dunlap (2002), are used to make sense of these behaviours and attitudes. The two theories help project what the future of society could potentially be. A very important aspect in determining the relationship between people and nature in South Africa. The youth are highlighted as key to understanding this as they are the countries future leaders and policy makers. Policies that would impact nature and society development.

5. Introduction

The aim of this study was set at determining what youth perceptions of nature are and then to make sense of these perceptions. Determining what these perceptions could mean for the future of societies. The study found that there is diversity in youth perceptions of nature based on a variety of social factors that influence them. What makes youth perceptions common however is the fact that they can distinctively be divided into one of two perspective outlooks of life. Holding a collectivist or individualistic perspective in society relay a lot to the perceptions that youth have towards nature. Simply because these perspectives help distinguish certain attitudes and behaviours between each other. Behaviours and attitudes associated with communal operation stems from having a collectivist perspective, whilst behaviours and attitudes that are associated with having solo operations, stems from having an individualistic perspective. Theory helps explain what these perspectives could mean for the future of societies in terms of the relationship that people have with nature. This chapter aims at drawing on conclusion to the findings of the study. Giving a clear overview in what the findings have contributed towards existing literature. In conclusion a suggestion towards possible further studies in future is given.

5.1 How youth truly feel about nature

Each participant's remarks (that was taken from an interview or completed questionnaire survey), when analysed, presented a unique take on the kinds of perceptions youth have of nature. Although it was acknowledged that each participant had their own perception about nature, commonalities of these perceptions amongst youth could easily be grouped based on social factors that influenced these perceptions. Identifying where a certain perception might come from, helped show just how similar youth perceptions of nature are. It was determined that the attitudes and behaviours that South African youth have towards nature can be traced back to the common factors that influenced their perceptions of nature.

5.1.1 Factors that influence nature

The significance of social factors on being influential to South African youth perceptions of nature has been noted. The influential social factors that were reoccurring the most throughout literature, are listed as; *access and location, culture and gender, perceived risk and safety, education and upbringing, nuances.*

Access and location

It can be said that one's location and their proximity to nature or elements of nature, shapes the way that one might view and feel about nature (Vining et al., 2010). The study found that most youth perception of nature that were influenced by one's location, were centred around how much were the youth exposed to nature based on where they grew up. Those that grew up in areas very close to nature, built an attraction to nature at an early stage. Often enjoying being in nature and whenever they were away from natural environments, through school, work, study; they were very fond of returning to natural environments. The members of the youth that did not grow up so close to nature showed less excitement about being or returning to natural environments. However, this did not mean that their appreciation for nature was less than those that grew up in proximity with nature. Usually those that did not grow up in areas where a lot of nature was present, the attraction of nature came from being exposed more so to certain elements of nature e.g. a tree in the yard, herbs and plants grown in a family garden, a park near by the house.

How youth view nature and what aspects of nature youth view as most important can to some extent be linked to access to certain natural resources they had growing up. Growing up most people learn a lot from the areas they reside in and the resources they have at their disposal (Hunter et al., 2010). Having access to nature or certain elements of nature, the study showed that this helped to explain issues in nature youth found as important. It has been confirmed that when a youth grows up in areas full of nature like a farm for example or near hiking trails, they begin to appreciate being in those kinds of setups more so than youth that did not grow up or have access to such environments growing up.

Culture and gender

Culture and culturally defined gender roles play a role in shaping South African youth perceptions of nature (Hunter et al., 2008). This study has shown that the use of nature for cultural ceremonies or culturally relevant resources such as medicines, food, recreation; plays a role in how South African youth view nature. Growing up under certain cultural practices, one begins to understand the importance of nature for things such as traditional ceremonies or traditional resources (Horowitz, 2001). It is this importance that shapes the way the youth begin to view nature. The study found that gender works hand in hand with culture to influence youth perceptions of nature. This is because some of the cultural ceremonies in nature are gender based. So too is how some of the resources extracted from nature, that are of importance to a culture. The study highlights how women harvest plants to create medicines for the family or own gardens that grow food for the family. This then plays a role on how women of the youth view nature and the aspects of nature that they may perceive as most important.

Perceived risk and safety

This study has shown that perceived risk and safety in nature, influences youth perception of nature. Perceived risk and safety in nature is identified as a factor that relates to the area that one grows up in. The area that one grows up in is usually based on their socio-economic status (Hunter et al., 2010). Evidence on this was confirmed through the finding and analysis chapter four of this research paper. There are cases where those from low income households, grow up in areas where it's not truly safe to visit areas of nature such as parks and hiking trails. This is because these areas are perceived to be unsafe of risk due to a high volume of crime occurring in such location. The youth that grew up in such locations would then perceive nature as not always a safe space. Hence such youth were recorded as having less motivation to spend time in nature, then for examples youth that grew up near natural environments that were not associated with violent crimes. Culture and race also played a role on youth perceptions of nature, within the context of South Africa. Traditions in nature, what is taught about nature growing up, as well as access to certain parts of nature, are all factors that are culturally and racially influenced (Johnston and Zipperer, 2007; Marcias, 2015). The element of nature that can

be perceived as risky to one racial group or cultural group may not necessarily be the case to others (Johnston and Zipperer, 2007; Marcias, 2015). In this study majority of the youth who came from middle to low income households where parts of nature were perceived as risky and full of crime especially in areas where they grew up, happened to be black and coloured youth. Mostly the white youth claimed to either have grown up in very close proximity to nature (as in areas such as farm lands) or have easy access to such areas. Most white youth respondents are the ones that claimed to partake in hikes in nature, walking their dogs in nature; something that was not culturally common amongst the black and coloured races

Education and upbringing

Education influences perception as perception is an accumulation of what one may learn throughout their life (Petrosillo, et al., 2007). Youth perceptions of nature is highlighted as being influenced by the formal education they received at school on nature. This study has shown that where members of the youth previously attended a school where outdoor education was an important factor, this helped shaped their appreciation and understanding of nature more. Some schools could not take part in outdoor education programmes, these include excursion in nature, due to the area the school was in. This links back to the factors of risk and safety. Youth that grew up in location that were affected by too much crime, would as a result not experience the same education of the natural environment then those that grew up in areas with less crime. The study confirms however that youth understanding of nature, is not always influenced just by formal education, but through being educated by other institutions in society as well (Chapman & Sharma, 2006). In the study youth acknowledged that school is not the only means of them receiving education about nature. Some youth learn about nature from their parents at home. Therefore, youth perceptions of nature may not necessarily be hindered through a lack of understanding and activity in nature, based on their formal school education.

Nuances

This study identifies that there are subtle differences amongst South African youth when it comes to their perceptions of nature. This is because context plays a huge role in how perception of nature

shaped in general. Different social factors combine to influence youth perceptions of nature, and the degree to which these social factors influence such perception of nature may also differ amongst individuals (Adams and Savahl, 2013). These factors together with one's race, class and or gender as well as circumstantial occurrences (context that are different for different youth members), all play a role in determining the subtle nuances that make perceptions differ amongst South African youth. Although this ideally means that there can be countless perceptions of nature that can be recorded amongst youth, Distinctive traits are what make perceptions of nature similar amongst South African youth. This study finds that these traits can be grouped into one of two perspectives, collectivist and individualistic perspective. These perspectives helped define perceptions based on the attitudes and behaviours they produce. Therefore, certain attitudes and behaviours that youth have towards nature can either be boxed under having a collectivist perspective or individualistic perspective. Most youth displayed having a collectivist perspective about nature. This is classified by having an understanding about nature that allows one to see nature as being as equally important to humans as humans are to nature. Being concerned about issues in nature to some degree and not consciously acting or behaving in a way that is constantly detrimental towards nature (Schultz, 2002)

5.1.2 Youth perceptions of nature

Most South African youth define nature as something that is untouched by people. When nature is thought of, most youth think about trees, rivers, mountains, no buildings and many animals. To some extent most South African youth would agree that nature is something that is separate from humans. Viewing nature in this way helped explain why most South African youth felt that humans are what's wrong with nature. Pollution, abuse of natural resources by industries, drought, climate change, just to name but a few, are all issues in nature that youth identify are caused by humans.

Some South African youth perceive nature as unsafe and risky as a lot of crimes happen within natural environments especially in townships and areas where those from low-income backgrounds reside. Some South African perceive nature as a positive space with lots of benefits that are said to come from nature, these include therapy, learning, teaching, food, medicines and many

more. Overall South African youth perceive nature as important for survival and depending mostly on access, youth may view certain aspects of nature as more important than others.

5.1.3 What youth perceptions of nature mean to society

Another way of showing commonalities amongst youth perceptions of nature was done so by using theory that helped explain the potential meaning behind having certain perceptions of nature. This study has shown that South African youth tend to have a positive outlook on nature. Their perspectives of nature can mostly be grouped into a collectivist perspective. This perspective highlights the fact that most South African youth in this study acknowledge that nature is equally for human survival as humans are for nature's survival. Many elements can be derived from nature that are useful to humans, therefore, to abuse nature would mean to lose these elements. Elements that include food, water, medicine and even a place for recreation. Most of the youth in this study showed positive behaviour and attitude towards nature, highlighting the fact that most are consciously aware of threats against nature. Also, youth in the study mention that they actively do certain things to ensure the protection of nature when they can, although it may seem that some do not do it all the time and some only do it when they are reminded or told. It appears that very few of the youth considered themselves nature activist in this regard. However, in general the youth do show an attraction to nature, most of them stating that their experiences through Matric EnWild has made them fond of (or fonder of, for those that were already) of nature. Though this did not indeed represent itself with the statistic of those that have since been back to nature after the camp.

New Ecological paradigm theory by Dunlap (2002) best described the behaviours and attitudes of youth towards nature, based on their perception of nature. With this theory a positive outlook for South African societies can be argued. The mindset of the youth is well placed for youth to care enough about the natural environment to potentially see issues in nature as a concern for the future. The set back is that some youth are not always conscious of the threats they may pose to nature and some are only aware of the threats to nature when it most affects them or based on what they consider important in nature, e.g. Water. This mindset can be traced back to social factors that influence youth perceptions of nature, as a lot of youth ideologies differ based on education, culture,

location and access, amongst other things. South Africa's social and political ecological future depends not only on youth current perceptions, but the factors that influence these perceptions.

5.2 Conclusion

The findings in this research paper have highlighted youth perceptions of nature. The aim was to understand and then make sense of these perceptions of nature within the context of South Africa. Literature and theory were used to make sense of the different perceptions of nature held by South African youth. What was found is that there are five reoccurring influential factors of youth perceptions of nature. Another finding in this research was the various kinds of behaviour and attitudes that youth display towards nature based on their perceptions. These behaviours and attitudes were made sense of by using the HEP and the NEP theory developed by Dunlap (2002). This was done in order to discuss the future of South African societies. As the youth are acknowledged to be the future of the country and their actions would one day promote or hinder the countries development.

This research contributes to existing studies on youth perception of nature within the context of South Africa, an area where very little research on this topic currently exists. This research ignites the conversation on what certain youth perceptions of nature may mean for South Africa's future social, political and ecological landscape. This research paper cites useful findings in the field of environmental sociology, using social environmental theories to make sense of attitudes and behaviours youth have towards nature based on their current perceptions. Understanding South African youth perceptions of nature and how they are formed, is vital at tackling how perceptions of nature that are considered problematic can be targeted and changed, while individuals are still young.

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APENDIX

Would you like to remain anonymous

16 responses

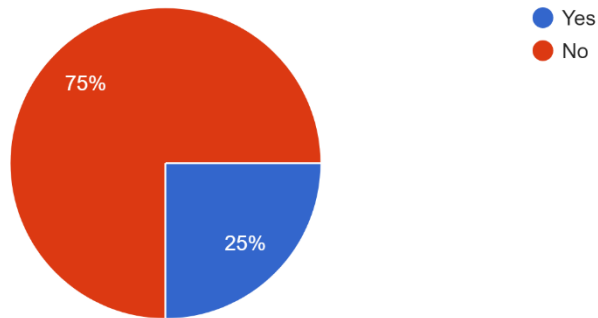


Figure 1.

Indicate what best describes the area in which you were raised.

16 responses

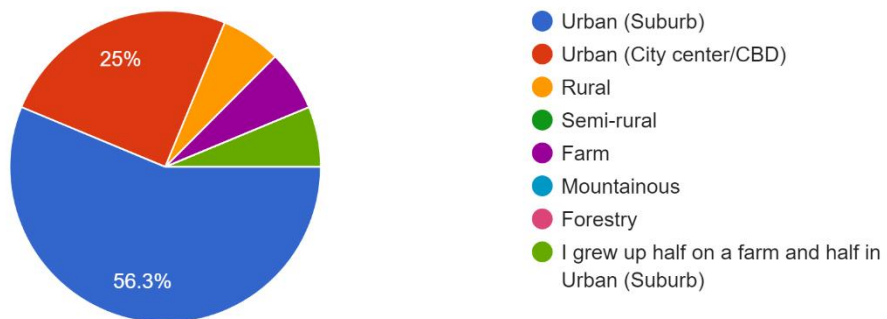


Figure 2

How easy is it for you to access nature where you were raised?

16 responses

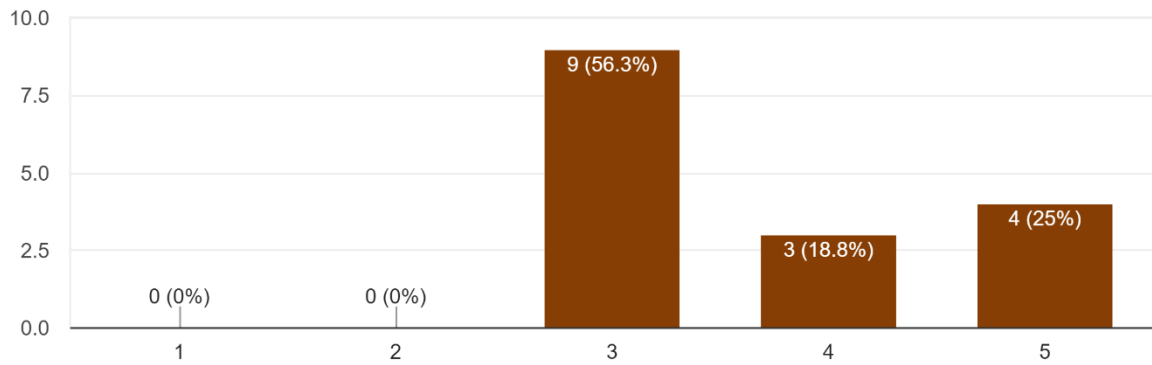


Figure 3

Where are you from?

16 responses

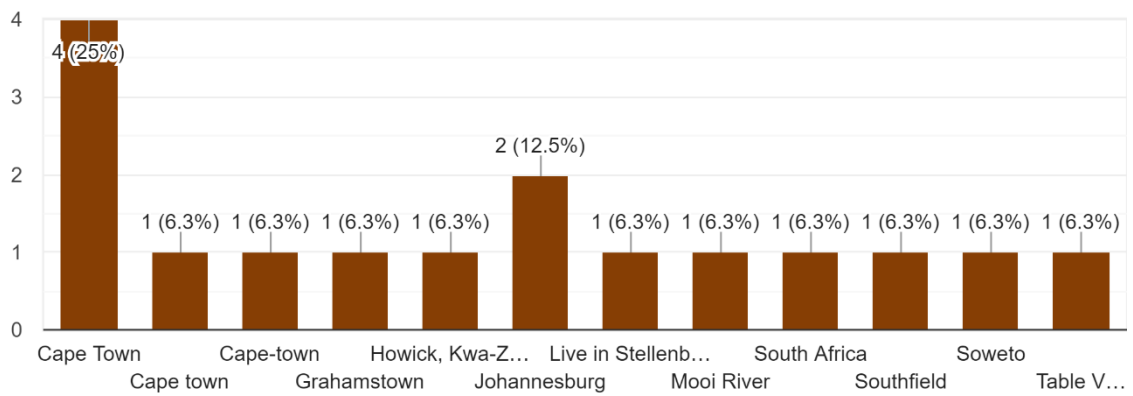


Figure 4

Which of these threats concern you the most?(Select all those that apply)

16 responses

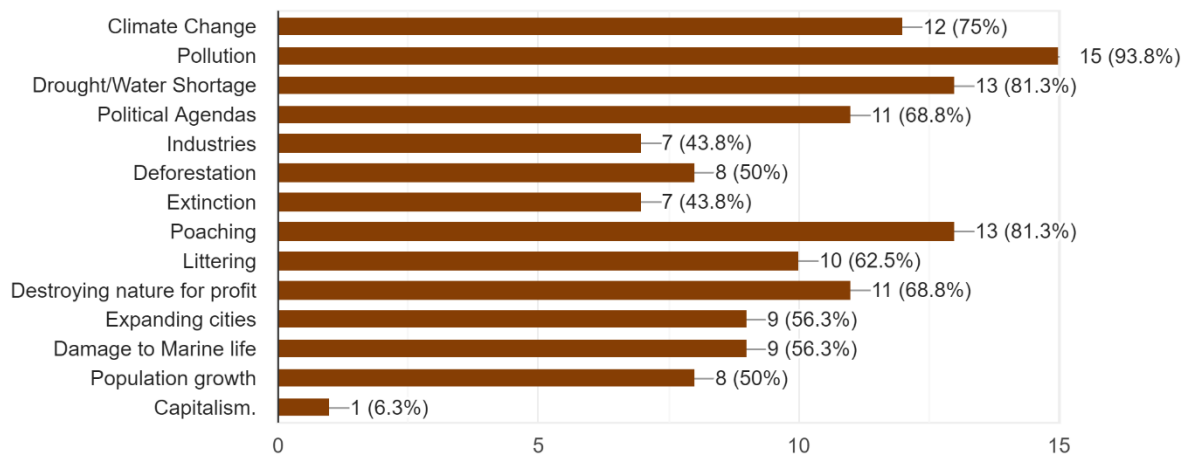


Figure 5

Did your school partake in excursions/outings/journey programmes in nature?

16 responses

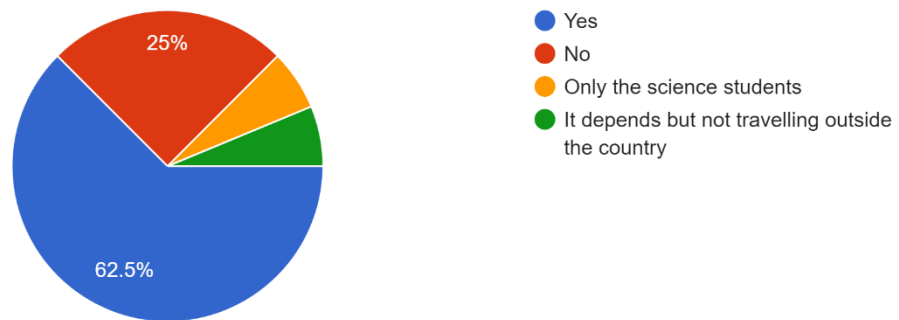


Figure 6

Have you been back in nature after completing Matric Chill-Out/Matric EnWild programme?

16 responses

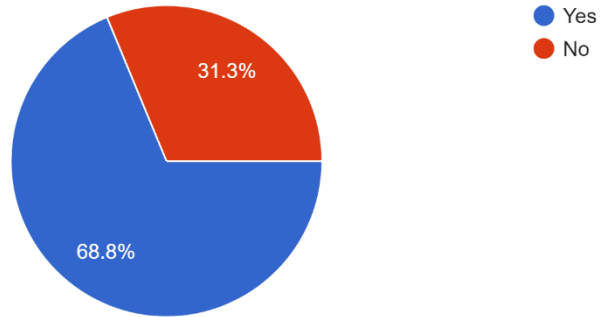


Figure 7

Are you aware of any threats against the natural environment in South Africa ?

16 responses

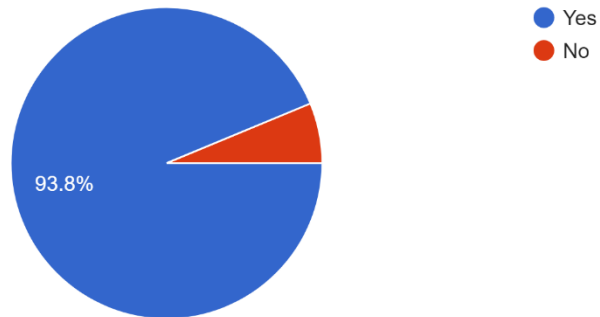
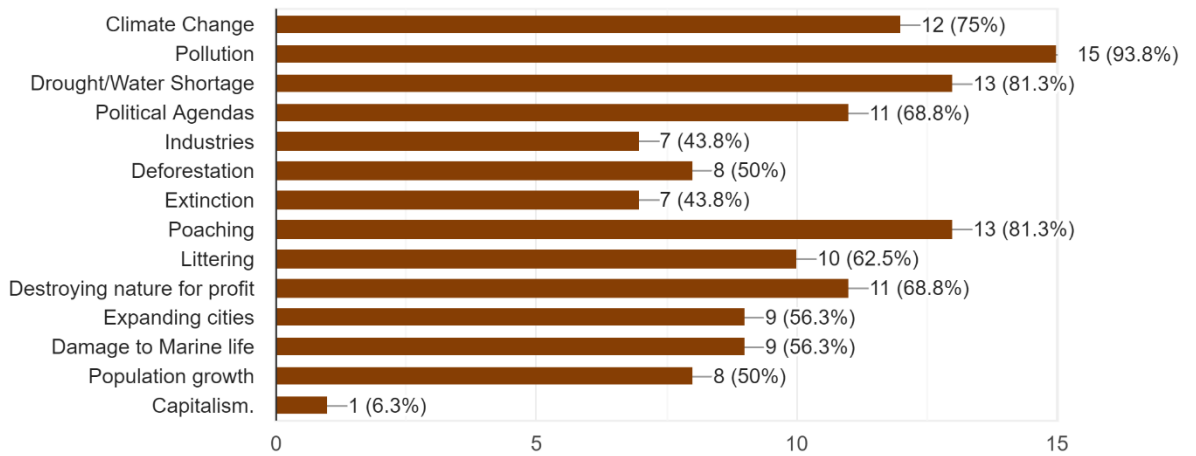


Figure 8

Which of these threats concern you the most?(Select all those that apply)

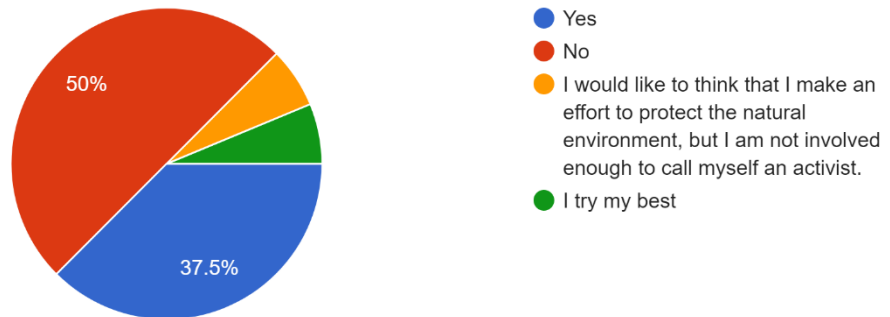
16 responses



Graph 9

Do you consider yourself a nature activist?

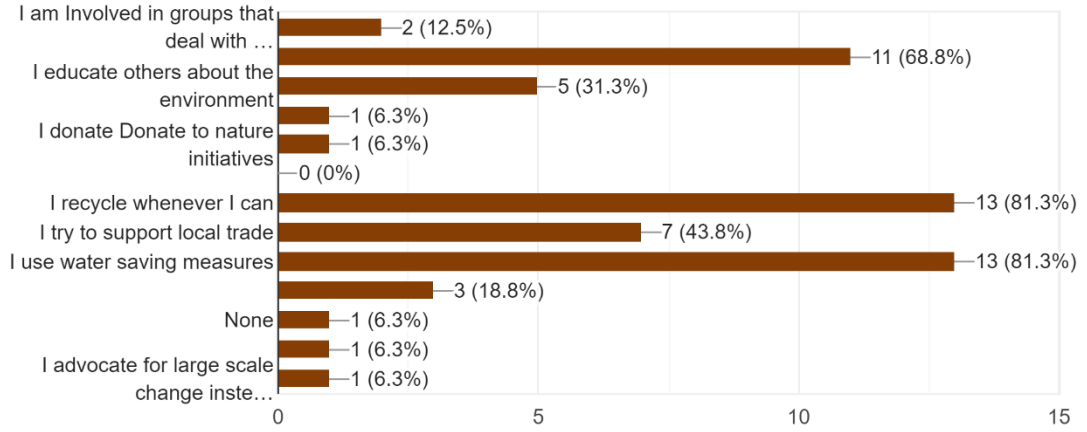
16 responses



Graph 10

What are you currently doing to combat these threats? (Select all those that apply)

16 responses



Graph 11