

Towards a deeper understanding of the social perceptions of
selected youth populations within Southern Africa surrounding
conservation and rhinoceros poaching.

by

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Declaration by student

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Abstract

The issue of rhinoceros poaching in Southern Africa is a complex and dynamic wicked problem (Henk & Koen, 2014). Statistics show that despite numerous interventions, the number of rhinoceros poached continues to grow. According to the WESSA website, poaching has increased from 333 rhinoceros in 2010 to 1215 in 2014 (Anon., 2014). This suggests that these interventions have not been successful, especially in the short term. A concern is that a number of these interventions have been aimed at the education of children that are attending school, without fully understanding the perceptions that these youths have towards conservation in general and rhinoceros poaching in particular. An in depth study into the social perceptions that youth of Southern Africa have towards this issue is needed to develop a more holistic understanding of this aspect of the overall wicked problem of rhinoceros poaching.

The basis for this study lies in the drawings and messages written on children's art that were collected as part of an existing project run by Project Rhino KZN and the Kingsley Holgate Foundation. The analysis of this "Rhino Art" was supported and supplemented by the answers to surveys that were conducted as an extension of the same project.

The aim of this research is to explore whether Theory U is beneficial in leading to a deeper systemic understanding of the perceptions that selected youth populations within Southern Africa have towards rhinoceros poaching.

The objectives of the research are to:

1. Identify key themes in the youth perceptions that emerge about rhinoceros poaching from the analysis of the art, art messaging collected and surveys conducted.
2. Seek patterns that emerge based on the geographic location of where the art was collected from within selected populations within Southern Africa.
3. Employ the lenses of Theory U to better understand how selected leaders, who have developed into a network of co-thinkers are transforming their perceptions on rhinoceros poaching based on the key outcomes that emerge from the art, art messages and also surveys.

Throughout this study, Scharmer's Theory U was used as a guide to deepen understanding of the perceptions that emerged from the analysis of the "Rhino Art". Within the broader framework of Theory U, a content analysis approach using an iterative process and grounded theory was used to identify patterns and trends in the art and the messaging. The art was rated on a scale of 1 – 6 ranging from poor to excellent. A total of 22 elements that appeared in the art were recorded and analysed using the above approach. A further 52 key themes emerged from the art messaging that were then broken down into 10 sub categories and three main categories, namely; Economic, Conservation and Cultural.

A content analysis process was also used to analyse the responses to surveys that were conducted at two consecutive "Youth Rhino Summits" held in September 2014 and July 2015 as an extension of the "Rhino Art" Project. This provided a deeper insight into the beliefs held by the children attending school. Open ended questions about specific conservation issues surrounding rhinoceros poaching were asked.

The outcomes of these surveys were used in conjunction with the “Rhino Art” Messaging to provide a more well- rounded view of the perceptions that the youth hold.

Throughout this process, key learnings were shared with members of the “Rhino Art” team who are actively involved in rhinoceros conservation. Their reflective responses and experiences regarding the children’s perceptions were gauged using Theory U to guide and inform learning. The observation and recording of the “Rhino Art” team’s responses was conducted in order to gauge how selected leaders transformed their perceptions on rhinoceros poaching through the study of children’s art. The evolution and growth of the “Rhino art” project itself was also documented to illustrate the various cycles of reflection and action that have taken place within the team.

The use of Theory U was shown to be beneficial in how the analysis of the art lead to a deeper understanding of social perceptions that youth in selected populations of Southern Africa have towards rhinoceros poaching. The children’s art and art messaging revealed patterns and key themes including views on economy, conservation and culture. Many of these themes were linked to geographic locations. The difference in quality and themes that emerged between the art collected from urban areas versus rural was significant. As seen through the lense of Theory U, these observations brought out new insights in leaders that worked with the art. These insights have shaped the way the “Rhino Art” project has evolved and grown. The understanding of how conservationists have transformed their perceptions towards the youth in terms of rhinoceros poaching could, through further studies, lead to the development of more appropriate interventions aimed at school going children.

Acknowledgement

“Rhino have a particularly plaintive cry, which once heard is never forgotten. The screams of agony from a rhino that have had their horns chopped off while still alive should reach the hearts of all of us”
Dr Ian Player.

A very big thank you to Project Rhino KZN and the Kingsley Holgate Foundation for granting me access to the “Rhino Art” and for allowing me to be part of this amazing experience. I truly admire the support the inspiring work that these and other organisations are doing to preserve wildlife.

To Mom and Dad, thank you for the love and support, I couldn’t have done this without you. Thank you for allowing me to always follow my dreams and for believing in me.

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Chapter 1 Introduction

1.1 Introduction

The issue of rhinoceros poaching is a complex, dynamic and wicked problem (Henk & Koen, 2014). Poaching of Africa's rhinoceros has escalated exponentially since 2007 and this escalation has raised concerns amongst conservationists about the long term survival of the species (Ferreira, et al., 2014). Spikes in the prices of rhinoceros horn have propelled the killing of rhinoceros and without urgent corrective measures, extinction of this species is likely (Anderson & Jooste, 2014). The rapid rise in rhinoceros poaching has been driven by an exponential increase in the illegal demand for rhinoceros horn in South East Asia. Rhinoceros horn usage can be linked to traditional medicine where it is used to reduce temperature, particularly in the blood and to purge the body of toxins (Milliken & Shaw, 2012). Despite no evidence of pharmacological value in the treatment of cancer, rhinoceros horn remains widely associated with cancer treatment in Vietnam (Milliken & Shaw, 2012). The use of rhinoceros horn also extends to new found status symbols and general entrepreneurial uses which has resulted in the increase in the value of rhinoceros horn placing increased pressure on wildlife populations (Ferreira, et al., 2014).

Rhinoceros have a high commercial value as a tourist attraction, both locally and internationally as one of the so called Big Five animals to be seen in game reserves. As a result game reserves go to extreme measures to mitigate the problem posed by poaching (Henk & Koen, 2014). South Africa is home to 75 percent of Africa's rhinoceros population where wildlife tourism represents an important source of income and employment opportunities in marginalised rural communities (Sohrabian, 2012). Eco-tourism contributes to sustainable development as well as employment and provides incentives for local communities to protect their surrounding environment. Rhinoceros poaching threatens to jeopardise these benefits not only because of the depleted rhinoceros populations but also due to the massive security costs associated with protecting rhinoceros (Sohrabian, 2012). This is not just a wildlife poaching problem but is part of a global illicit trafficking network that has far reaching consequences throughout Africa (Anderson & Jooste, 2014).

Several attempts are being made to put an end to the slaughter of rhinoceros but often the interventions are reactive and do not take into account the complexity of the issue (Henk & Koen, 2014). Some of the responses to the escalating poaching crisis include increased law enforcement and protection, demand reduction campaigns in Asia and the advocating of a regulated legal trade in rhinoceros horn (Ferreira, et al., 2014). These interventions do not consider the potential knock on effect they could have on different parts of the system. It is this conundrum that makes rhinoceros poaching a wicked problem and we need to develop a shared understanding amongst all stakeholders to shift the system from where rhinoceros are facing extinction to one where the rhinoceros is preserved (Henk & Koen, 2014).

African communities located near Africa's parks and reserves live in the thick of the poaching crisis and will likely play a role in its reduction. Through effective engagement and support, these communities can work to dissuade youth from poaching (Anderson & Jooste, 2014). Throughout the world, there are

examples where conservation leaders have encouraged community based management and collaboration with local stakeholders as part of managing game reserves and protected areas (Bruyere, et al., 2011). Community based conservation efforts often do not engage the youth and as a result the youth are often detached from actual decision making or public input. This may prove to be crucial missed opportunity as the youth are the next generations of wildlife stewards and potential advocates for conservation (Bruyere, et al., 2011).

1.2 Thesis Organisation

The first part of this chapter is background information on the existing “Rhino Art” project which forms the basis of this research. Information on the project is presented and the “Rhino Art” team, who ultimately make up the network of co-thinkers who could transform their perceptions based on the outcomes of this study, is introduced. The need for the study and the aims and objectives are set out. Following this is a detailed motivation as to why this research is necessary and the importance of addressing the wicked problem of rhinoceros poaching. The dramatic increase in rhinoceros poaching is a grave concern and new ways of dealing with the situation, such as better understanding the youth’s perspectives about this issue, are needed to try and preserve this species. The key methodology used in this research is Scharmer’s (2009) Theory U. In the introduction an overview of Theory U is presented as well as an explanation as to how and why Theory U has been used to achieve the aims and objectives of the research.

Chapter 2 explains and reviews the following key concepts that are used throughout this research; wicked problems, systems thinking, Theory U, networks, stakeholder analysis and existing perceptions that communities have towards conservation and poaching.

Following in Chapter 3, the methodology used to achieve Objectives 1 and 2 is explained in detail. An emergent content analysis approach was used to uncover themes and patterns found in the “Rhino Art”, “Art Messaging” and survey samples. The way that Theory U was used to identify the themes that emerged as well as why the content analysis method was used are explained in detail. The results of this analysis are shown in Chapter 4 highlighting the themes that were identified as well as the patterns that emerged based on geographic location.

In Chapter 5, key issues that arose in the research are addressed and discussed. Key to this chapter is the discussion surrounding Objective number 3 which shows how the lense of Theory U was used to better understand how selected leaders, in this case the “Rhino Art” team have developed into a network of co-thinkers who are transforming their perceptions on rhinoceros poaching based on the outcomes that were examined in Chapter 4. Lastly, conclusions and recommendation are discussed in Chapters 6 and 7 respectively.

1.3 Background

Although it is widely accepted that it is important to educate the youth of today on the importance of conservation, there is very little formal research about this matter. Social activists just need to trawl the internet to see the well-meaning education programs aimed at the youth and the number of youth conservation clubs that exist. However, if you search for academic articles on this subject there is very limited content to be found. An example of this is the project, “Rhino Art – Let our Voices Be Heard” that led to this study which are explained in detail in section 1.3.1 below. The intent of the project came from the desire to educate thousands of children on the importance of rhinoceros conservation. There were no formal guidelines as to how this should be done and certainly no record of what the children already knew or what they thought about the rhinoceros poaching to begin with.

It was only as the project grew that the scope of the information gathered became apparent. The initial objective of the “Rhino Art” project was to gather the largest number of Children’s Art Voices ever recorded in support of rhinoceros conservation and to use these “hearts and minds” messages from the youth as a worldwide call to action against rhinoceros poaching. The power that lies in the voices of the youth was expected and understood in terms of volume as well as identifying and inspiring potential future leaders. There was also the hope that the children would act as catalysts for change in their communities by sharing the knowledge they learnt at school with their parents and families. Word of mouth can be a powerful tool.

As the value of the information been collected became apparent, the team was able to let go of the idea that this was just a simple education program. It emerged that this art could potentially be a vital piece of missing information in the complex puzzle that is rhinoceros poaching. The very children where the education was directed are often the silent witnesses to the horror of poaching and the information gathered could be able to offer very interesting and previously unknown insights into the perceptions that the youth have towards the poaching crisis.

It was this insight that led to this study which involves the analysis of thousands of pieces of Children’s “Rhino Art” and “Art Messaging”. A further analysis was done of surveys that were completed at the “Youth Rhino Summits” which forms an extension of the “Rhino Art” project. The analysis and examination of the study material was done using the framework of Theory U as a guide to move through ever deepening cycles of reflection and action to enhance understanding on this complex issue.

1.3.1 “Rhino Art – Let our children’s Voices be heard”

In 2013 The Kingsley Holgate Foundation and Project Rhino KZN initiated a conservation project called "Rhino Art, let the Children's Voices Be Heard". The aim of the project is to educate as many school children as possible on the importance of rhinoceros conservation and to gather a record number of messages from the youth to use in a call to action to stop rhinoceros poaching and all forms of wildlife crime. Schools all over Southern Africa have been visited and the process is discussed below.

The “Rhino Art” team arrives at the school with the permission of the headmaster and gives a short presentation on the importance of rhinoceros conservation to the school. The children are then given an A3 piece of paper with the outline of a rhinoceros on it and instructed to colour it in in any way they

want. Where possible, the children are also asked to write a “Heart and Minds” message on the art explaining what rhinoceros poaching means to them. For the purpose of this research, the messages that appear on the art have been termed “Art Messaging”. The team returns to the school approximately a week later to collect and judge the art. The “best” artist is awarded a prize and this judging process creates another opportunity for the “Rhino Art” team to engage with the children on the importance of rhinoceros conservation. Feedback on this project shows that this is a very effective and memorable way of engaging with youth, especially in rural areas, on the importance of conservation. It serves as a way for conservationists to engage with communities and foster better relations between game reserves and the communities that surround them.

As of September 2015, the “Rhino Art” project has collected over 250,000 pieces of art reaching many communities that are often neglected in the war on rhinoceros poaching. In 2013 when the team first started collecting the art, they were impressed and surprised by the quality and diversity of the art and art messaging. It quickly emerged that there was a huge amount of information been conveyed in these messages and that there was a need for more detailed analysis.

Initial impressions on the content of the art were significant. It was noticed that art from the Kruger National Park region showed incredible detail of poacher’s accessing the Park by cutting through fences and using chainsaws to cut the horn off a slaughtered rhinoceros. In some cases, the art even depicted men in army uniforms with a caption reading “Fake SADF – this man is a poacher”. The children from Mozambique spoke of the human tragedy “Please stop rhino poaching; I have lost two brothers already”. Swaziland where the King has made it clear that poaching will not be tolerated, there is evidence of national pride and an understating of the role rhinoceros play in bringing foreign currency into the country. The art from KwaZulu -Natal depicted the very real horror of rhinoceros poaching with detailed drawing of rhinoceros with their faces hacked off. It was these insights into the themes and the differences across regions that ultimately led to this study.

1.3.2 “Youth Rhino Summit”

As the “Rhino Art” project grew and evolved, it was introduced to urban schools and adopted by a number of conservation agencies overseas and most importantly in Vietnam. Public interest in the project grew as people began to understand the power that the voices of the youth had in combating rhinoceros poaching. At the same time the team was beginning to understand the limitations of the “Rhino Art” project in that the education element of the project was basic and subject to time constraints and the varied level of interest and competency encountered at each school. In turn the information that was received from the youth was limited in that the platform is confined to a simple A3 piece of paper.

Again though a series of reflection and action, the team identified a need to recognise and reward artists that has excelled at the art and shown a commitment to conservation. It was realised that a bigger platform was needed where the youth of today could interact and form networks with each other and be able to converse and learn from leaders in the industry. Through this process it was decided to host a youth summit based on the issue of rhinoceros conservation.

The inaugural “Youth Rhino Summit” was held in Hluhluwe iMfolozi Park in September 2014 and was attended by 132 children from around the world. All delegates were selected for their involvement in the “Rhino Art” Project and were able to learn from and engage with world renowned conservationists.

Following on from the realisation that a deeper insight into the youth perceptions towards conservation and rhinoceros poaching was needed, all the delegates were required to take part in a survey at the initiation of the summit. This was done to assess their basic level of understanding of rhinoceros poaching and the perceptions they held towards rhinoceros conservation. By asking open ended questions about specific conservation issues the summit organisers were able to better understand the beliefs held youth towards conservation. Based on the success on the first “Youth Rhino Summit”, a second summit was held in Zinkwazi in July 2015.

1.3.3 Rhino Art Team

For the purpose of this study the term “Rhino Art Team” refers to a group of people, predominantly volunteers, who all work together to try and preserve rhinoceros through the “Rhino Art” education program. There is a core team that work together on a daily basis overseeing the day to day running of the project in terms of administration and the facilitation and running the “Rhino Art” project in schools. There are also a number of advisors and ambassadors who are called on for advice and extra help for large events such as the Youth Rhino Summits. All team members are stakeholders in rhinoceros conservation and include game farm owners, veterinarians, teachers, community leaders, game rangers and respected conservationists. It is this team of professionals who represent the network of co-thinkers throughout this study.

1.4 Need for the Study

Why would one child mature to be a game ranger when another from the same village with similar circumstances mature into an adult poacher? This question was the initial starting point for this research that has become a way of exploring the perceptions that some youth of Southern Africa have towards conservation and rhinoceros poaching in particular. Each of us carries the memory and expectations of our own experience as school children (Senge, et al., 2005) and this study will examine the expectation and perceptions of school children today in terms of rhinoceros poaching.

A living system continually recreates itself but how this occurs in social systems depends on our level of awareness both individually and collectively (Senge, et al., 2005). This study is a starting point to deepening understanding of the perceptions that selected individuals have towards rhinoceros poaching so that at a later stage it can be examined collectively. The ultimate goal of the “Rhino Art” team is that instead of developing individuals, one can connect like- minded others and create conditions for emergence. As individual and collective consciousness increases, it is hoped that the best decision are derived by virtue of the expanded state of awareness of those participating in the process (Hardman & Hardman, 2013).

The art collected in the “Rhino Art” Project allowed a large number of children the opportunity to express what conservation means to them. These children have largely been overlooked and according to Wheatley (2006), we need a constant array of data, views and interpretations if we are to make sense

of the world. We need to include more and more eyes and actively seek information from sources that people never thought to look before (Wheatley, 2006, p. 66). There was a realisation and understanding that the voices of the youth had for the most part been ignored or underutilised in the so called “war” against rhinoceros poaching and this art gave us access to those eyes and voices.

In section 2.1.1, it is shown that rhinoceros poaching has been recognised as a wicked problem which cannot be solved, rather one needs to “design” more or less effective solutions based on how the problem has been defined (Mascarenhas, 2009). It is understood that all aspects of a wicked problem need to be analysed and all stakeholders well informed. It is also understood that in order to tame and better understand the full nature of a wicked problem, the problem could simply be broken down in to more manageable modules (Mascarenhas, 2009). The purpose of this study is to look at one aspect of the wicked problem and that is to deepen the understanding of the social perceptions that youth of selected populations of Southern Africa have towards conservation and rhinoceros poaching.

Today’s children are tomorrow’s elders and leaders and therefore understanding how the youth perceive conservation is arguably as important as understanding adult’s views. Identifying how the youth currently perceive conservation and investing in building a partnership with that generation now, would pay dividends in the future (Bruyere, et al., 2011). A deeper and broader insight into what perceptions the youth of southern Africa have towards rhinoceros poaching is needed to develop a more holistic understanding of this aspect of the overall wicked problem of rhinoceros poaching.

1.5 Research Aim

The aim of this research is to explore whether Theory U is beneficial in leading to a deeper systemic understanding of the perceptions that selected youth populations within Southern Africa have towards rhinoceros poaching.

1.6 Objectives of the Research

The objectives of the research are to:

1. Identify key themes in the youth perceptions that emerge about rhinoceros poaching from the analysis of the art, art messaging collected and surveys conducted.
2. Seek patterns that emerge based on the geographic location of where the art was collected from within selected populations within Southern Africa.
3. Employ the lenses of Theory U to better understand how selected leaders, who have developed into a network of co-thinkers and are transforming their perceptions on rhinoceros poaching based on the key outcomes that emerged from the art, art messages and also surveys.

1.7 Motivation for Study

Africa’s rhinoceros have faced two catastrophic crises over the past 50 years. From the 1970’s to the mid 1990’s most rhinoceros populations were decimated due to the relentless poaching of rhinoceros for traditional medicine and dagger handles (Milliken & Shaw, 2012). As a result of this, there was an upsurge in conservations efforts and rhinoceros numbers began to rise. Unfortunately we cannot classify this as a conservation success story as second crisis is now upon us resulting in unprecedented

rhinoceros losses (Milliken & Shaw, 2012) With the best conservation record of rhinoceros in the world it is sad that South Africa now finds itself gripped in this crisis. Rademeyer in Player (2013) states that in 2013, more than 2000 rhinoceros had been poached in the past four and half years, more than seven times the number poached for their horns in the 27 years between 1980 and 2007. It is a unique set of circumstances that has led to this up swell of poaching, all of which illustrate the wicked nature of the problem. A few of the contributing factors include unscrupulous wildlife professionals, corrupt government officials and hardened Asian crime syndicates. This new face of rhinoceros poaching is a devastating development in South Africa, tarnishing the image of conservation (Milliken & Shaw, 2012).

On the black markets of Southeast Asia, rhinoceros horn is worth more per kilogram than gold, cocaine, platinum or heroine. It is a product people are prepared to kill and die for (Rademeyer, 2012). It is believed that Vietnam is the biggest end user of rhinoceros horn where it is consumed for a number of reasons. There is the link to traditional medicine where many hospitals and health centres in Vietnam are reportedly licenced to practice traditional medicine. Historically rhinoceros horn is used to reduce temperature, especially internal heat in blood (Milliken & Shaw, 2012). More recently rhinoceros horn increased demand has been brought about by anecdotes of the unproved cancer reducing properties (Ferreira, et al., 2014). There are reports that the promotion of rhinoceros horn for treatment of terminal illness is a cynical marketing ploy to increase the profitability of the illicit trade (Milliken & Shaw, 2012).

Rhinoceros horn is also habitually used as social bonding element at so called "Rhinoceros wine associations" where Asian expatriate business elite use rhinoceros horn to detoxify after excessive alcohol and rich food. Rhinoceros horn is mixed with water and used effectively as a hangover cure (Milliken & Shaw, 2012). Milliken & Shaw (2012) state that collectively this usage represents the largest volume of rhinoceros horn consumed as it has become a means to flaunt wealth, status and success amongst friends and associates. Rhinoceros horn is a new status symbol and has many general entrepreneurial uses supported by thriving regional economies and new access to disposable incomes (Ferreira, et al., 2014).

The increased involvement of organised crime syndicates also has degrading effects on society at large (Ferreira, et al., 2014). Poachers have grown steadily more sophisticated, some even using helicopters and veterinary services. Other have amassed arsenals of weaponry and they are adept at corrupting officialdom and subverting regulations. All the while poachers are being killed and rhinoceros shot on a scale not seen since the 1980's (Rademeyer, 2012) Rhinoceros poaching in South Africa is at an all-time high and Fenio (2014) estimates that 8 in 10 poachers are Mozambicans with up to 15 poaching gangs operating within the Kruger Park on any given day. The porous border between South Africa and Mozambique adds to the problem (Fenio, 2014).

As the value of rhinoceros horn continues to increase with estimated black market price being as high as \$65,000 per kilogram in 2013 (Anderson & Jooste, 2014). At the same time the cost of protecting rhinoceros has increased and this is making rhinoceros a liability particularly in the private sector. The private sector plays an integral role in conservation contributing to two million hectares of land and owning 24% of South Africa's rhinoceros (Ferreira, et al., 2014). However the sky rocketing cost of

protecting rhinoceros as well as the personal risk involved has led to many private owners opting out of rhinoceros conservation putting the remaining rhinoceros population under further risk (Ferreira, et al., 2014). Another consequence of rhinoceros poaching is the threat to biodiversity. Poaching has already led to the near extinction of some sub-species of rhinoceros and the disappearance of rhinoceros in Mozambique in 2012 (Anderson & Jooste, 2014).

There are a number of interventions aimed at curbing the illegal killing of rhinoceros for their horns. For the purpose of this study, these interventions have been summaries into two broad categories:

Increased Protection of Rhinoceros: This strategy aims at reducing the availability of rhinoceros horn through increased anti-poaching efforts and to discourage poaching by increasing the risk of being arrested and prosecuted (Ferreira, et al., 2014) . These interventions also call for increased political will by making rhinoceros conservation a high profile national priority, collaborative law enforcement action, better management of sports hunting and to address the capacity and resource constraints that currently affect conservation (Milliken & Shaw, 2012). Education on the importance of conservation is key.

Demand Reduction: There needs to be an intensification of awareness and demand reduction strategies in consumer states. This can be done by calling for increased political will and reviewing and strengthening penalties related to the illegal trade in rhinoceros horn. Clinical trials need to be conducted to ascertain the medicinal properties of rhinoceros horn and these finding need to be made public (Milliken & Shaw, 2012).

It is agreed that curbing rhinoceros poaching requires a variety of responses that may have different levels of effectiveness. Conservation authorities must be adaptive and switch to more wide reaching solutions that focus on the cause of the problem such as the demand for horn in South East Asia (Ferreira, et al., 2014). Other issues such as poverty, lack of employment and education in Southern Africa could lead to an increase in poaching. An integrated and flexible approach is needed and it is therefore necessary to explore all possible avenues and to engage with all stakeholders in order to try and uncover alternate approaches to dealing with the wicked problem of rhinoceros poaching. Understanding the perceptions that the youth of Southern Africa have toward rhinoceros poaching is one such avenue that could be explored and is the primary motivation for this study.

1.8 Theory U

1.8.1 An Introduction

The complexity of current social, environmental and economic realities requires conceptual frameworks that can generate collective action. Scharmer's Theory U is one such framework that offers a combination of systems thinking, organisational learning and leadership (Nicolaidis & McCullum, 2013). Theory U is a way of facilitating systems thinking to solve complex problems through regenerating organisational systems by providing a conceptual framework to work within (Yamauchi, 2014). It is necessary to regenerate systems related to complex and wicked problems and to adjust modes of thinking when trying to solve these problems. (Yamauchi, 2014).

Learning is a key issue in development and is usually seen as a cycle (Schlesinger, 1996), all learning integrates thinking and doing and according to Kolb & Kolb (2009) the power of learning is increased by following a cycle of experiencing, reflecting, thinking and acting. This reactive learning is usually governed by “downloading” habitual ways of thinking and discounting ideas that are different from those we know and trust. Figure 1.1 below shows how in reactive learning, thinking is governed by established mental models and doing is governed by established habits of action.

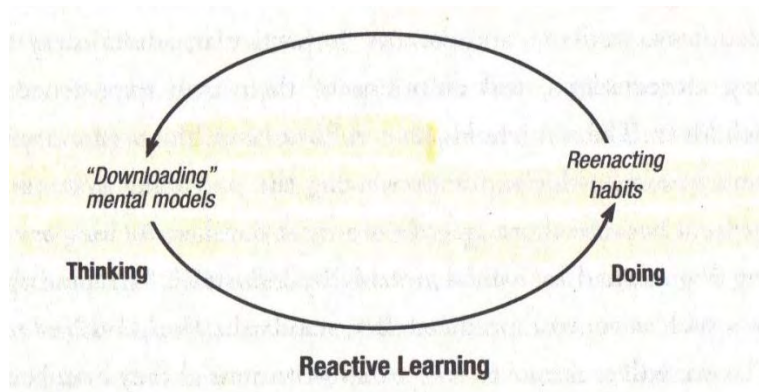


Figure 1.1 Reactive Learning taken from (Senge, et al., 2005, p. 8)

Schlesinger (1996) proposes that this cyclic way of looking at learning does not reflect the complexity of reality. The learning cycle is a convenient simplification that is best used for “after the fact” reflection (Schlesinger, 1996). It is therefore recognised that different types of learning are possible and that new ideas and intuitive knowledge can be brought into reality (Senge, et al., 2005). Figure 1.2 below shows how each cycle of thought and action results in a deeper level of awareness about the situation. This deepening of awareness changes the consequent source of the actions which increasingly serves the emerging whole (Senge, et al., 2005).



Figure 1.2 Deep Levels of Learning after Presence (Senge, et al., 2005)

The above diagram differs from Kolb’s Circle of learning (Scharmer, 2009) in that instead of the circular pattern of learning, Theory U offers a shift in each cycle that allows for a deepening of understanding and therefore actions can emerge from a more aware state.

Theory U got its name from the shape of the journey. In order to get to the deep point of transformation and shifting of our inner place at the bottom of the “U” one needs to travel down the left hand side of the “U” by opening minds, hearts and will and then travel up the right hand side of the “U” where the new is brought into reality through action. (Scharmer, 2015).

1.8.2 The Use of Theory U in this Study

According to the Presencing Institute’s website (Scharmer, 2015) Theory U can be understood as a framework, as a method and as a way of being. For the purpose of this study, it is used in all three ways. As a framework, Theory U was used to shape the way in which the deepening of understanding, with regards to youth perceptions, takes place. This is evident in the journey of how the significance of the “Rhino Art” was recognised and how the study of this art gave rise to the identification and analysis of key themes representing the perceptions that the youth have towards rhinoceros poaching.

Theory U was used as a method in that it shaped the meta- thinking of the researcher in terms of deciding what analytical method needed to be used to analyse the data samples, in this case an iterative content analysis approach. The content analysis itself was guided by following the seven steps of the “U” process that are explained in section 2.3.2. Each time the data was reviewed as part of the content analysis, it represented a cycle of reflection, mirroring a journey through the U. As this journey was repeated it represented a deepening of understanding, as illustrated in Figure 1.2, of the themes and patterns that emerged.

In terms of Theory U becoming a way of being, the behaviour of systems cannot be transformed without first transforming the quality of awareness and attention that people apply to their actions within these systems. This can be done both individually with regards to the researcher and collectively as the “Rhino Art” team (Scharmer, 2015). Most significantly, this was represented by the personal journey of the researcher working through the U to arrive at the decisions as to how to analyse and manage the data sample as well as the growth in maturity that was needed in order to fully understand and interpret the information that emerged from this study.

In this way, Theory U was used to guide the content analysis process that ultimately achieved the first two objectives of this research, namely identifying key themes in the perceptions of the youth and seeking patterns based on geographic location that might emerge in these themes. This aspect of this research is explained in detail in the methodology in Chapter 3. The third objective of this research was to use the lense of Theory U to better understand how selected leaders, in this case the “Rhino Art” team, developed into a network of co-thinkers and how they transformed their perceptions on this aspect of the complex, wicked problem of rhinoceros poaching. This transformation was based on the outcomes of the first two objectives. The way in which the team developed and grew was shaped by using Theory U as framework to guide the observations, reflection and action of the transformation of the team and this journey is documented in detail in Section 5.3 below.

1.9 Delimitation and Limitations

It must be noted that the researcher is part of the “Rhino Art” team. This allows for unique insights into how the project runs and how the outcomes from this research has changed and defined the project going forward. There is however the risk that this relationship will result in a biased and subjective view on the analysis of the art. In order to limit this bias and subjectively, a content analysis approach was used and a quantitative value was assigned to a qualitative sample.

Another limitation of this research is that the art used for the study was collected from an existing project and is therefore not evenly distributed. The majority (73%) of the art was collected in KwaZulu-Natal due to travel and time constraints. The art collected from other regions does not constitute a representative sample, however, the differences between the regions even with these very small samples suggest that there is a need for further study. For this reason, these samples have been included in the study. A further limitation is that only English Art messaging was analysed. There were messages in Zulu and Portuguese and these messages could be analysed as part of another study.

In terms of the content analysis across all research areas, namely the art, art messaging and surveys, only one researcher actually analysed the data and despite using coding as a way of eliminating bias there are elements of subjectivity.

1.10 Ethics

The basis of this research revolves around “Rhino Art” that was drawn by children younger than eighteen years of age and therefore careful consideration needed to be given to the ethical implications of this. In accordance to law, ethical clearance was sought from the University of KwaZulu Natal and was duly granted on the 28th August 2015. A copy of this clearance is attached in Appendix E.

The art and surveys emanated from an existing project run by Project Rhino KZN and the Kingsley Holgate Foundation and written consent was given by both these organisations to use art collected by them in a project called “Rhino Art – Let our Children’s Voices be Heard”. All consent for the collection and use of this art and the surveys was carried out by these organisations.

Chapter 2 Literature Review

In this section the different concepts that were used in the analysis of the data for this study are explored and explained in more detail. It is shown that rhinoceros poaching is indeed a wicked problem. This is done by showing and explaining the criteria that constitute a wicked problem and then in section 2.1.2 these criteria are attributed to various aspects of rhinoceros poaching. It is explained that in order to try improve a wicked problem, it needs to be looked at in its entirety as part of a greater system. An understanding of system thinking is therefore needed to view the problem holistically. The framework of Theory U is the approach that was followed to gain a deeper understanding into the focus area of this study. The important role that communities, and the youth in particular, who live on the borders of game reserves, play with regards to conservation and rhinoceros poaching are addressed.

2.1 Wicked Problems

In this section the theory of wicked problems are explained and then in section 2.1.1 these attributes are linked to rhinoceros poaching in order to show that rhino poaching is indeed a wicked problem and what the consequences of this could be.

A wicked problem is complex, ever changing and involves a whole realm of social and organisational planning problems that cannot be successfully treated with traditional linear, analytical approaches (Ritchey, 2005). Wicked problems are strongly stakeholder dependant and there is often little consensus as to what the problem actually is let alone how to deal with it (Ritchey, 2005). Most wicked problems imply discontent, discord, confusion, lack of progress and angst amongst its stakeholders and these stakeholders often have different values and priorities (Mascarenhas, 2009). These problems are messy and subject to multiple interpretations and solutions are either not evident or difficult to understand (Redford, et al., 2013). With wicked problems neither the problem nor the solution are known, here the problem is so complex that there may not be any agreement as to what the problem actually is (Mascarenhas, 2009).

This is in contrast to tame problems which can be characterised by having a relatively well defined and stable problem statement. Tame problems may be quite complicated but they lend themselves to analysis and solutions by known techniques. Traditional linear processes are often sufficient to produce a solution to a tame problem within an acceptable period of time (Mascarenhas, 2009). Furthermore, a tame problem has a definite end point in that one would know when the solution has been reached. Usually a tame problem belongs to a class of similar problems and can be solved in a similar way and it has solutions that can be tried and abandoned (Ritchey, 2005).

Wicked problems are different, they are ill defined, ambiguous and associated with strong moral, political and professional issues that interact and evolve in a dynamic social context (Ritchey, 2005). The degree of wickedness of a problem can be judged using Rittel and Webber's (1973) ten criteria which are outlined below:

- 1. There is no definite formulation of a wicked problem:** The information needed to understand the problem depends upon one's idea for solving it. Therefore, in order to describe a wicked problem, an inventory of all conceivable solutions needs to be developed ahead of time. To find

the problem is thus the same thing as finding the solution, the problem can't be defined until the solution has been found.

2. **Wicked problems have no stopping rules:** Unlike solving a tame problem, there is no way to tell when a solution has been found for a wicked problem. There is no end to the causal chains that link interacting open systems. Work on a wicked problem usually terminates due to external factors such as time, money and patience. One needs to be happy with the best one can do within the limitations of the project.
3. **Solutions to wicked problems are not true or false, but better or worse:** Normally there are many parties who are able to judge the solutions but none have the power to determine correctness. These judgements will differ according to their interests and value sets.
4. **There is no immediate and no ultimate test of a solution to a wicked problem:** Any solutions to a wicked problem will generate waves of consequences over an extended period of time. At times these consequences will have undesirable outcomes that outweigh the intended advantages of the solution. The full consequence cannot be appraised until the waves of repercussions have completely run out and this is impossible within a limited time span.
5. **Every solution to a wicked problem is a "one shot operation"; because there is no opportunity to learn by trial and error, every attempt counts significantly:** With wicked problems, every implemented solution has consequences that cannot be undone. Every attempt to reverse a decision or to correct an undesired consequence poses another set of wicked problems which in turn are subject to the same dilemmas.
6. **Wicked Problems do not have enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan:** In the pursuit of a wicked problem, usually a host of solutions arises and another host is never thought up. It is then a matter of judgment as to which solution should be implemented or to enlarge the available set or not.
7. **Every wicked problem is essentially unique:** Despite a long list of similarities between a current problem and a previous one, there might be an additional distinguishing property that is of overriding importance. One can never be sure if the particulars of a problem override its commonalities with other problems already dealt with.
8. **Every wicked problem can be considered a symptom of another wicked problem:** Many aspects of a wicked problem can be considered symptoms of other aspects of the same problem. There is no natural level of a wicked problem, the higher the level of formulation, the broader and more general it becomes and the more difficult it is to solve. Looking at a lower level might result in making things worse as it becomes more difficult to deal with the higher problems.
9. **The causes of a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution:** In dealing with wicked problems there are several more ways of refuting a hypothesis than there are permissible in science. Personal choice comes into play as everyone will pick an explanation of discrepancy which fits their intentions best and which conforms to the action prospects that are available to him.

10. (With wicked problem) the planner has no right to be wrong: In the world of wicked problems the aim is to improve some characteristics of the world where people live and therefore the solvers are responsible and liable for the consequences of the actions they generate.

Henk and Koen (2014) state that we often try to reduce complex problems by successive simplifications in order to communicate the essence of the problem. These simplifications can be seen as reflective and representative of the real issue and then addressed at that simplified level. This will result in an answer that appears to solve the simplified version of the problem, however, this answer may be wrong or it may manifest as a new, sometimes more serious issues somewhere else (Henk & Koen, 2014). When using the approach of trying solve a simplified version by only looking at one aspect of the problem, it can lead to new forms of wicked problems (Ritchey, 2005).

Instead of simplifying the issue, the issue of possibility should be addressed. Attempting to identify all possible outcomes allows for wise decisions to be made based on several factors that include social perspectives and transcend disciplinary research. Taming a wicked problem must encourage wide collaboration, bringing multiple stakeholders with often conflicting opinions and objectives, to a common understanding of the essence of the problem allowing resolutions to emerge iteratively (Henk & Koen, 2014). Rittel and Webber (1973) make it clear that where one best answer is possible with tame problems this is not the case with wicked ones and thus a wicked problem can never be solved, they can only be made better or worse.

2.1.1 Rhinoceros Poaching as a Wicked Problem:

At first glance, the rhinoceros poaching issue appears to be a simple play between poachers and consumers trying to increase the number of animals poached and game owners and police trying to reduce the number of animals killed (Henk & Koen, 2014). However, as the problem escalates it attracts the interest of environmentalists and tourists for example who have different requirements to the original problem owner. The ultimate solutions becomes a moving target and the requirements evolve with every sub-system developed (Henk & Koen, 2014), meaning that there will be varying solutions to the problem. According to Fenio (2014) there are a number of reasons why poaching continues to occur at such alarming rates including economically marginalised populations' anger toward the status quo, huge financial incentives from poaching, widespread corruption and porous borders, all of which highlight the complex interaction of economic and political factors in perpetuating illicit wildlife trafficking and the wicked nature of rhinoceros poaching.

As mentioned in section 2.1 above, Mascarenhas (2009) states that wicked problems imply discontent and angst amongst its stakeholders. In the case of rhinoceros poaching this can be seen in the many stakeholders involved. One example of these stakeholders is the end users, some of whom believe that rhinoceros horn can cure terminal illness. Rhinoceros are poached for their horns which are made from keratin and although there is no clinical evidence of rhinoceros horn having any pharmacological value for treating cancer (Milliken & Shaw, 2012) there are reports of rhinoceros horn "touts" deliberately seeking out desperate individuals suffering from cancer and selling them illegal rhinoceros horn (Milliken & Shaw, 2012). Also driving the demand for rhinoceros horn is its new found use as a status

symbol in Vietnam which is supported by thriving regional economies (Ferreira, et al., 2014), this demand has given rise to an unsavoury group of stakeholders made up of organised criminal syndicates.

At the same time, rhinoceros have a high commercial value as a tourist attraction and add to the commercial viability of game reserves. This introduces another stakeholder group who identify with the problem of rhinoceros poaching with individual game farmers looking to protect their investment. Then there are the local communities that rely on the jobs and trade created by the game reserves (Henk & Koen, 2014). Poachers themselves are often from economically marginalised populations who are promised huge financial incentives from poaching. This together with widespread corruption and porous borders adds to the overall wicked problem (Fenio, 2014). Environmentalists are worried about the role rhinoceros play in ecosystems and what the impact would be should they go extinct. On a national level the defence force must be seen to protect the integrity of national borders and all the implications associated with this (Henk & Koen, 2014).

As seen in section 1.7, many attempts are being made to put an end to the slaughter of rhinoceros but most efforts are focused on addressing only a subset of the requirements directly. Often the interventions are reactive and do not take full account of the potential knock on effect these interventions could have on different parts of the system (Henk & Koen, 2014). This is a wicked problem and one needs to ask how we develop a deep enough shared understanding amongst stakeholders to shift the system from where it is at present to one where rhinoceros can be preserved (Henk & Koen, 2014). Adding to the complexity of this problem is the sheer number and diversity of stakeholders involved and invested in rhinoceros poaching and conservation. Stakeholders are inter-dependent in that actions influence other stakeholder's interests. These interdependencies are often complex and not clearly visible and stakeholders find it difficult to engage in joint action (Bueren, et al., 2003). This stakeholder analysis is discussed further in section 2.5.

Hance (2015) explains why rhinoceros poaching is a good example of a "wicked problem". He shows that the current poaching situation highlights the complexity of conservation whereby each problem associated with poaching is linked to another problem at another scale in space and time. This interview claims that rhinoceros poaching is driven and influenced by beliefs, values and decisions being made every day from remote communities in Africa to cities worlds away in Asia and America, all connected through an intricate web of players. There is no clear solution because the problem cannot be isolated and our ability to make predictions and diagnose failures are reduced. Simple solutions are not able to make much difference. (Hance, 2015)

Further to the above and referring to Rittel and Webber's (1973) ten criteria that define a wicked problem, it is seen by the examples below that each criterion can be attributed to rhinoceros poaching and conservation and why this issue is indeed a wicked problem.

- 1. There is no definite formulation of a wicked problem:** How can the issue of rhinoceros poaching be defined? One aspect is to look at why poachers do what they do? The obvious starting point would be money. The very high levels of unemployment's in Southern Africa mean that many people are desperate to feed their families and the temptation of the money that can be made by poaching is great. It is necessary to look at what is causing the high levels of

unemployment? Could this be an outcome of the education system and so the questions continue. It is not possible to understand the problem without understanding the context.

2. **Wicked problems have no stopping rules:** When would it be defined that rhinoceros poaching has been solved. Using the above example, it could be said that when rhinoceros are no longer killed for their horns, rhinoceros has been successfully solved. Does that solve the problem of unemployment or poor education? How far does the ripple effect go for the problem to be truly “Solved?”
3. **Solutions to wicked Problems are not true or false, but better or worse:** From a conservationist’s point of view, stopping the killing of rhinoceros would be the best possible solution but from a different stakeholder’s perspective, the problem could be considerably worse. The poacher for example would no longer have an income and no way of supporting his family and the problems associated with unemployment would not have been solved.
4. **There is no immediate and no ultimate test of a solution to a wicked problem:** One of the biggest debates surrounding rhinoceros poaching at present is the question of whether to legalise the trade in rhinoceros’s horn or not. This is a perfect example of the above, it could be argued that trade should be legalised but what if that sets off a massive spike in demand of rhinoceros horns and ultimately results in further poaching. Conservationists have no way of knowing what consequences could be sparked by making this decision.
5. **Every solution to a wicked problem is a “one shot operation”; because there is no opportunity to learn by trial and error, every attempt counts significantly:** Again using the example of trade, once the decision is made, the results of that decision cannot be undone. Should the legalisation of trade result in a greater number of rhinoceros horn users, then it would be very difficult to reverse those users in the future.
6. **Wicked problems do not have enumerable (or an exhaustively describable) set of potential solutions, nor is there a well-described set of permissible operations that may be incorporated into the plan:** Looking at the vast number of “Solutions” that have been implemented to curb rhinoceros poaching illustrates this point. These solutions range from reducing demand in Asian countries, relocating rhinoceros to safer locations and the manufacture of 3D fake rhinoceros horns, illustrate how each solution that is implemented is the choice of the stakeholder in question working in their best judgement at that moment.
7. **Every wicked problem is essentially unique:** The current rhinoceros poaching crisis is indeed unique. It cannot be compared to the earlier poaching crisis for the simple reason that it has evolved to a far more sophisticated crime involving syndicates and technology and superior weapons. It can also not be compared to elephant poaching for example, in that the end user is different and tusks cannot be “harvested” while an elephant is still alive and thus needs to be handled in a different way.
8. **Every wicked problem can be considered a symptom of another wicked problem:** As mentioned above, rhinoceros poaching could be considered a symptom of poverty and unemployment. From a crime perspective, it is believed that the syndicates who run rhinoceros poaching are also responsible for the illegal trade of arms and drugs and this has far reaching international consequences.

9. **The causes of a wicked problem can be explained in numerous ways. The choice of explanation determines the nature of the problem's resolution:** A number of reasons could be assigned to the sometimes poor security of game reserves. It could be lack of funds, poor ranger training, and corruption of security staff or inferior weapons compared to the poachers. Which one is correct? This illustrates how there is no correct explanation or combination.
10. **(With wicked problem) the planner has no right to be wrong:** Conservationists aim to improve the plight of the rhinoceros but they have to recognise that they are working with an open system and that any solution implemented could have far reaching consequences. An example of this would be shooting a poacher to save the life of a rhinoceros and how this could be judged in a number of ways and the consequences of the game ranger going to jail for murder for having effectively done his job of protecting wildlife.

2.1.2 Coping with Wicked Problems

One of the ways to understand a wicked problem is by devising solutions and seeing how they add to the knowledge regarding the problem (Mascarenhas, 2009). Rather than finding an ultimate solution to a wicked problem one needs to develop systems that resolve problems within a certain context using a Trans-disciplinary approach. This could lead to decisions that will impact all stakeholders and over time will reduce the likelihood of rhinoceros becoming extinct (Henk & Koen, 2014). Taming is a common way of trying to cope with a wicked problem, instead of dealing with the problem as a whole, it can be simplified and broken down into more manageable and therefore more solvable pieces. In doing this Mascarenhas (2009) warns taming the problem could exacerbate and make the problem worse in the future. (Mascarenhas, 2009) The focus of this study was primarily "Rhino Art" however, this was done within a holistic process, framed by Theory U. The research was conducted in full recognition that rhinoceros poaching is a wicked problem as explained in the section 2.1.1 above.

One of ways of understanding wicked problems is by devising solutions and seeing how they add to the knowledge about the various issues that make up the problem (Mascarenhas, 2009, p. 5). This procedure reverses the normal flow of our traditional analytical thinking, with wicked problems, the solution should come before the problem. As many stakeholders as possible should be involved exploring multiple solutions and should be encouraged to understand each other's positions and contexts (Ritchey, 2005). Decisions made based on limited information could provoke strong reactions from stakeholders and result in polarised decision making (Bueren, et al., 2003). One cannot solve a wicked problem, rather one "deigns" more or less effective solutions based on how the problem has been defined (Mascarenhas, 2009).

The first step in dealing with a wicked problem is to recognise its nature, complexity and degree of wickedness (Mascarenhas, 2009) as we have identified with the case of rhinoceros poaching. The next step is realising that the rhinoceros poaching wicked problem is real and that actions are necessary to try and better the situation. There is a need not to be bound by any one way of solving or resolving the issue. Flexibility is key to coping with the nature of wicked problems (Mascarenhas, 2009). As Ritchey (2013) points out, there should be multiple alternate perspectives rather and a single prescribed solution.

Conservationists will not actually solve rhinoceros poaching, they will need to work through various issues connected to the overall wicked problem by using non-logical processes that are difficult to express in words but easy to express in action operating in the space between knowing and doing. In effect they prototype new solutions as they arise (Mascarenhas, 2009). Taming is one way of coping with wicked problems, instead of dealing with the full problem as a whole, it is simplified and broken into more manageable and resolvable pieces. Keeping in mind that this could ultimately exacerbate the situation. (Mascarenhas, 2009). Dealing with wicked problems requires group interaction as well as transparency which will lead to ownership of the issue at hand (Ritchey, 2005).

It is understood that all aspects of the wicked problem need to be looked at and handled accordingly however, the purpose of this study is to look at only one aspect of this wicked problem and that is the way in which the youth of Southern Africa perceive conservation and rhinoceros poaching in particular. So as to have a better picture of the overall problem of rhinoceros poaching, this research will focus on deepening the understanding of youth perceptions towards rhinoceros poaching which is one area that has been largely overlooked. To tame a wicked problem, it is necessary to involve all stakeholders (Mascarenhas, 2009) and the youth are one such stakeholder. It is important that the individual and diverse viewpoints of the stakeholders (in this case the youth) are recognised and that different interpretations of what issues and elements that add to the overall wicked problem of rhinoceros poaching are documented in order to obtain a collective intelligence about rhinoceros poaching.

2.2 Systems Thinking

When facing a multi-dimensional challenge such as rhinoceros poaching, a radical new way of thinking is required in order to solve the problem. System thinking is one example of thinking holistically that could be used to help address wicked problems such as rhinoceros poaching. When solutions are developed, the results are difficult to measure and often have ethical implications that add more challenges to the solutions (Yamauchi, 2014).

According to Senge (2006 p. 68), system thinking is the discipline for seeing wholes. It is a framework for seeing interrelations rather than linear cause and effect chains and for seeing processes and patterns of change rather than static snapshots (Senge, 2006). Systems thinking is widely believed to be crucial in dealing with the complexity facing the world now and in the future (Arnold & Wade, 2015). Systems are moving towards an interconnectedness in our ever globalised world and as these systems feed into one another they produce extremely complex, unpredictable effects. The skill set called systems thinking allows one to better understand these complex issues and behaviours and possibly better predict and ultimately adjust the outcomes (Arnold & Wade, 2015).

According to Arnold & Wade (2015 p. 675) systems thinking can be defined as “a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviours, and devising modification to them in order to produce desired effects. These skills work together as a system”. Systems are bound by invisible fabrics and interrelated actions. Since we are part of these systems, it is difficult to see the pattern as a whole and we tend to focus on isolated parts of the system and hence the problem never gets fully solved. Systems thinking is a conceptual framework and a body of knowledge that have been developed to make these patterns clearer and to help us change

them effectively (Senge, 2006). Senge focuses on addressing these complex problems through understanding the organisational system, as well as the mental models of the problem solvers, in such a way that the system itself is changed and properly aligned (Yamauchi, 2014).

Systems thinking is a discipline for seeing the structures that underlie complex situations such as rhinoceros poaching and this begins with restructuring how we think (Senge, 2006). The practice of systems thinking starts with understanding a simple concept called “feedback” that shows how actions either reinforce or counteract each other. These cause and effect relationships in systems are always circular and not linear (Yamauchi, 2014). This feedback loop is the result of two forms of interplay; the positive or reinforcing loops that lead to continual growth or decay, and the negative, balancing loops that lead to stability. These loops, and the patterns of behaviour they generate are found in all types of systems and therefore lends itself to a wide range of applicability (Mingers & White, 2010). From a system perspective, humans are part of this feedback process in that we are continually influenced by and influencing our reality and this understanding and shift in awareness is truly profound (Senge, 2006).

The general nature of this framework with its many theoretical and methodological developments, allows for systems thinking to be applicable to almost any problem (Mingers & White, 2010). As referred to in 2.1 above, a different way of thinking is needed in order to solve a wicked problem and systems thinking is one such way to facilitate this change in thought. However this change in thought does not automatically solve the various problems or issues faced but rather reframes the way the problem is thought about in the first place (Cabrera, et al., 2007). Systems thinking alone will not solve problems such as rhinoceros poaching. It is the vigorous problem solving efforts that are informed by a systems thinking perspective that will uncover viable solutions to these wicked problems (Cabrera, et al., 2007).

According to (Mingers & White, 2010, p. 1148) the systems thinking approach can be summed up as follows:

- The system is viewed holistically with a set of diverse interacting elements within an environment as opposed to being viewed in a reductive, simplified manner.
- When determining the behaviour of the system, it is the relationships and interactions between elements that are more important than the elements themselves.
- There is a hierarchy of levels within a system and the consequent ideas of properties emerge at different levels. The mutual causality occurs both within and between the different levels.
- One needs to accept that people will act in accordance to different ideals, purposes and rationalities when dealing with systems.

With this last point in mind, systems thinking is a way in which people capture the system and it enables people to realise that they are part of the system. Therefore, the process of regenerating a system requires that we put on hold our current frame of reference and recreate it based on the future we want to create (Yamauchi, 2014). “While not all systems are complex, all thinking is complex, and as such, the process of thinking in a systemic way is complex” (Cabrera, et al., 2007, p. 301). When

thinking, ideas are constantly changing and evolving by simultaneously adapting and responding to other concepts (Cabrera, et al., 2007). This can be referred to as changing our mental models which should ideally be done in a timely and appropriate fashion as the problem becomes more complex (Yamauchi, 2014). These ideas will then either link together, conflict or co-exist with each other. By taking multiple perspectives into account and balancing the focus between the whole and the parts, systems thinking is based on contextual patterns of organization rather than specific content (Cabrera, et al., 2007).

The ability to perform effective systems thinking is extremely important to the world's future as it transcends many disciplines by supporting and connecting them in highly impactful ways (Arnold & Wade, 2015). Components of systems thinking include the ability to identify key connections between parts of a system, identifying feedback loops and how they impact system behaviour and understanding how the structure of elements and interconnections of these elements facilitate systems behaviour (Arnold & Wade, 2015). Ultimately Systems Thinking can be defined as "a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviours, and devising modifications to them in order to provide desired effects. These skills work together as a system (Arnold & Wade, 2015, p. 675). All issues surrounding rhinoceros poaching can be viewed as a system and in order to change that system, current thoughts and frames of references need to be put on hold and then the system can be recreated based on the desired future (Yamauchi, 2014). This is a difficult process and it is therefore necessary to have a framework such as Theory U to help guide this system change.

2.3 Theory U

2.3.1 Theory U: As a Framework

As mentioned in section 1.8.2, Theory U can be understood as a framework, a method and as a way of being (Scharmer, 2015). Further to that and continuing from section 2.2, Theory U encompasses systems thinking theories and can be used as a framework for understanding systems thinking by giving social sciences a guide for practicing system thinking (Yamauchi, 2014). Most learning methodologies rely on learning from the past but dealing with complex wicked problems of today such as rhinoceros poaching, requires that we "Let go" of the past in order to connect with and learn from emerging future possibilities (Scharmer, 2015).

Theory U has made a significant contribution in enabling a shift in attention from the objective to the subjective dimension of human experience and has shed light on how our behaviours both as individuals and as a society can change when this view is applied (Hardman & Hardman, 2013). This shift in attentions occurs when people try and solve problems by adjusting their way of thinking and see themselves as part of the whole system rather than reacting to existing habits and routines (Yamauchi, 2014). This change in consciousness leads to better decisions being made by virtue of the expanded state of awareness and a deepening of understanding of those participating in the process (Hardman & Hardman, 2013).

The complexity of current social, environmental and economic realities including rhinoceros poaching, requires conceptual frameworks that can generate collective action. Scharmer's Theory U (2009) is one such framework that offers a combination of systems thinking, organisational learning and leadership (Nicolaidis & McCullum, 2013) which is needed to deal with these complex issues. According to Senge in Scharmer (2009) the key to understanding multiple unfolding crisis of our time and the future of human development lies in learning how to master the creative process that brings forth new realities collectively. The manner in which ideas are engaged and questioned is usually based on established mental models which are then downloaded to retrieve solutions. Thoughts and views that are familiar are then recognised and interpreted based past views and feelings and this leads to conclusions much like those drawn in the past being repeated and the outcomes remaining the same (Scharmer, 2009).

It follows that in order to get a different result, there needs to be a change in the way the solution is sought out. Senge in Scharmer (2009) describes this internal change as "Seeing" which he explains as recognising taken for granted assumptions and hearing things that were not evident before. Stepping outside the traditional experience and feeling beyond the mind so as to see that the future that can be different. In order to unlock these deep levels of commitments it must be understood that there is something that has be done differently even if the "how" is not clear (Scharmer, 2009). Theory U is one such framework that could help profound shifts in the nature of learning to occur. When moving into a future that is different from the past, one needs to learn from the future as it emerges by embracing intuition, ambiguity, uncertainty and the willingness to fail (Scharmer, 2009). It is this crucial movement that conservationists need to embrace if they hope to stop rhinoceros from becoming extinct.

When facing concerns about sustainability and environmental issues such as rhinoceros poaching, the need to understand the nature of our being as relational is critical to creating the transformational changes needed today (Southern, 2013, p. 63). This change in thinking is growing through small groups and networks resulting in a different quality of connection and a way of being present with one another where one can operate from a real future possibility that is different from what we normally experience (Scharmer, 2009). This manifest's in a shift in the quality of thinking, conversing and acting at a much higher social level and results in a heightened level of energy, awareness and sense of direction (Scharmer, 2009) ultimately resulting in a deepening of understanding of the issues at hand, in this case perceptions of youth towards rhinoceros poaching.

2.3.2 Theory U: As a Method

As much as Theory U can be used as a framework to understand systems thinking. It can also be used as a method to shape and guide the thought processes such as those involved in using a grounded theory approach. As is seen in section 3.7.2, the "Art Messaging" in this research was analysed using an iterative content analysis process and grounded theory to identify patterns and trends in the messaging. Grounded theory is exactly what its name suggests; theory grounded in experience. It occurs when rather than starting from a theory and developing a research idea and question, the researcher begins with their own experience and grows theory from that experience as it emerges (Wisker, 2008). Data collection, analysis and theory stand in reciprocal relationships with each other. As occurred with the "Rhino Art" this study began with an area of study, or the art sample, and what is relevant is that which

was allowed to emerge (Wisker, 2008). Again, relevant to the way in which the art and messaging were analysed, grounded theory is based in fieldwork observations and produces suitable explanations that are relevant to the “Rhino Art” team. It also produced limited explanations as to the perceptions that the youth have toward conservation based on the immediate evidence found in the art and messaging (Wisker, 2008). The practice of thinking and action guided by Theory U allowed for these explanations to emerge as themes in the art, art messaging and surveys.

It is also important to note that when attempting to solve a problem it can be done from different attention levels. The more complex and wicked the problem, the deeper the level of attention required to address it. Scharmer call this the field structure of attention and can be defined as follows (Yamauchi, 2014, p. 34):

Levels of Attention within Theory U:

1. **“I in Me”** This is when people look at a problem from their perspective only and their attention remains within this narrow perspective.
2. **“I in It”** When people look at problems from their own perspective but outside their own personal and individual judgment. Their attention is on the nature of the problem.
3. **“I in You”** People regard themselves as similar to others and are able to look at a problem empathetically with their attentions within others perspectives.
4. **“I in Now”** People see themselves as part of the whole system and look at problems in a growth inducing way rather than just solving short term deficiencies.

When people tackle a problem their attention goes from attention level 1 down to the deeper level 4 where the system behind the problem is observed. Once the problem has been understood at this very deep level of attention, attention can climb back up the levels to the top again and feasible ideas are developed as possible solutions. Scharmer in Yamauchi (2014) calls the deepest level of attention “I in Now” or Presence. This is the ability to focus exclusively on the current circumstances without decision making bias, at this level of attention, the entire system is able to be seen more clearly and ways to change the system are envisioned that could not be seen at other levels of attention (Yamauchi, 2014, p. 38).

Scharmer (2009) proposes a radical shift from linear thinking to a systemic approach that suspends the use of traditional behaviours by integrating human thought, emotion and will to stimulate a collective process that allows for entirely new solutions for current problems (Hardman & Hardman, 2013) to arise. According to Scharmer (2009) there are 5 movements of the “U” that make up this collective process:

- 1 **Co-Initiating:** listening to what life calls you to do and connecting with people and contexts related to that call.
- 2 **Co-Sensing:** going to the place of most potential by observing and listening with an open mind and heart.

- 3 **Co-Presencing:** going to the place of stillness and opening up to a deeper sense of knowing by connecting with the future that wants to emerge through you.
- 4 **Co-Creating:** building prototypes and exploring the future by doing.
- 5 **Co-Evolving:** holding the space that connects people across boundaries by seeing and acting from the whole.

As seen in Figure 1.2, Theory “U” gets its name from the shape of the journey. In order to get to the deep point of transformation and shifting of our inner place at the bottom of the “U” one needs to travel down the left hand side of the “U” by opening minds, hearts and will and then travel up the right hand side of the “U” where the new is brought into reality through action. (Scharmer, 2015). For relatively simple problems that do not require the problem solver to adjust their thinking the “U” movement is shallow, For more complicated problems exhibiting dynamic complexity that require the problem solver to change their mode of thinking, to go to a deep attention level, the curve of the “U” will be steep (Yamauchi, 2014). The steepness of the “U”, so to speak, increases with each cycle of reflection and action. Each of these cycles consists of a combination of the levels of attention and the five processes of the “U”. Through this combination, Theory U can be defined in seven distinct steps and this journey through the “U” is outlined by Scharmer (2009) in Figure 2.1 below:

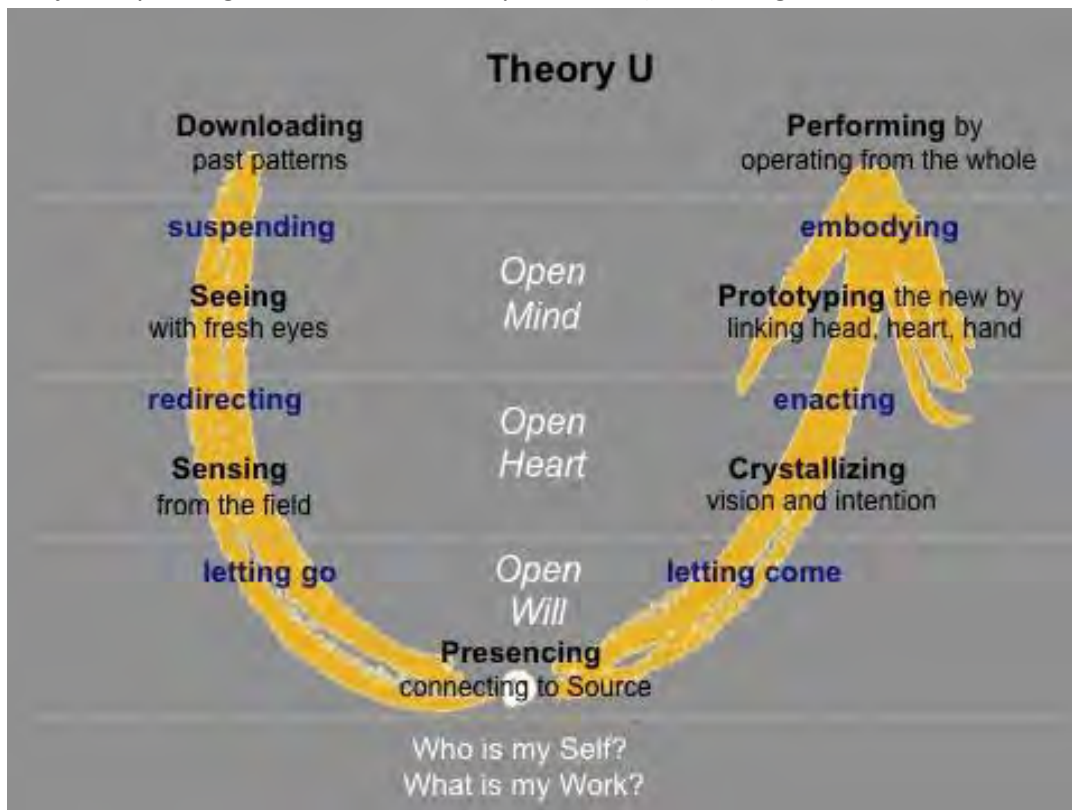


Figure 2.1 Seven Steps of Theory U (Scharmer, 2009)

One essentially works down the left hand side of the “U” by observing and moving through the following steps:

1. Downloading – re-enacting patterns of the past, viewing the world through one’s habits of thought
2. Seeing – suspending judgement and seeing reality with “fresh eyes”.
3. Sensing – connecting to the field and attending to the situation as a whole.

The bottom of the “U” is where one reflects and allows inner knowledge to emerge and is called Presencing:

4. Presencing – Connecting to your deepest source from which your future starts to arise.

Moving up the right hand side of the “U” is where the future is explored by action through the following steps:

5. Crystallising – Envisioning a new future that wants to emerge.
6. Prototyping – Exploring the future through doing
7. Performing and Embodying – Embedding the new practices in the context of a larger co evolving ecosystem.

Each time these seven steps are completed it represents a journey through the U and suggests a deepening of understanding of the issue at hand. These steps represent a cycle of reflection (left hand side of the “U”) and action (right hand side of the “U”). The repetition of these cycles at ever deeper levels of understanding results in the Theory U thought process represented in Figure 1.2 in Chapter 1.

2.4 Networks

As established in the previous sections, rhinoceros poaching is a wicked problem and one way in which it could be addressed is to involve all stakeholders using systems thinking within the framework of Theory “U”. One of the reasons for involving all stakeholders is that a group of average people can, under certain conditions, achieve better results than any individuals of the group (Leimeister, 2010). Leimeister (2010) also points out that the best collective decisions are not made by consensus building and compromises but rather through a competition of heterogeneous independent opinions. When dealing with sustainability issues such as rhinoceros poaching a crucial question is how to engage a range of people whose views and practices are critical to achieving an effective outcome (Attwater & Derry, 2005) such as preventing the extinction of a species. This ties in to one of the objectives of this study which was to use the lense of Theory U to better understand how selected leaders have developed in a network of co-thinkers. For the purpose of this study, this network is represented by the “Rhino Art” team who, as explained in Section 1.3.3, represent a number of stakeholders connected to rhinoceros conservation.

It is key that a wider network of stakeholders is developed with respect to rhinoceros conservation so as to develop a platform where collective intelligence can abound. These different stakeholders can reveal different perspectives and approaches thus leading to better explanations and possible solutions (Leimeister, 2010) to the overall wicked problem of rhinoceros poaching. Ultimately these new voices provide new perspectives and reflections and when viewed through the lense of Theory U, add to the

deepening of understanding that is required to shift the level of attention explained in section 2. 3 above, to the deepest level known as presence.

The youth, who are key to this study, are not only stakeholders in the rhinoceros poaching dilemma but they could potentially become a powerful network in their own right. Networks are the first stage of emergence and it is essential that the underlying dynamics are understood so as to develop these communities into systems, hence the need to understand the youth aspect of these dynamics (Wheatley & Frieze, 2007). Through understanding the perceptions that the youth of Southern Africa have toward rhinoceros poaching and how these perceptions might have been formed, it could be possible, through further engagement, to create a movement of change within the youth. By working with communities it can be seen what is possible when we connect people across distance (Wheatley & Frieze, 2007) and how local social innovation can be taken to scale and can provide solutions to many of the world's most intractable issues (Wheatley & Frieze, 2007) such as rhinoceros poaching.

The youth have largely been overlooked and according to Wheatley (2006), we need a constant array of data, views and interpretations if we are to make sense of the world. The youth provide one such view and interpretation. We need to include more and more eyes and actively seek information from sources that people never thought to look before. As long as communication occurs in a shared context, fertility abounds (Wheatley, 2006). By creating a network amongst the youth in terms of rhinoceros conservation, emergence becomes possible and it is this process by which all large scale change can happen (Wheatley & Frieze, 2007). The youth could be united as a network through sharing a common cause and vision of what is possible allowing new knowledge, practices, courage and commitments to develop (Wheatley & Frieze, 2007).

2.5 Stakeholder Analysis

Stakeholder analysis is being recognised in natural resource management because of the growing importance of the role that stakeholders play in influencing environmental decision making (Breen, 2013). The term stakeholder has often been used to try account for the range of perspectives held by all of those who have, or believe they have, an interest in a particular plan or project (Attwater & Derry, 2005) and in this case, the issue of rhinoceros conservation. Stakeholders include all those who affect and are affected by policies, decisions and actions of the systems, they can be individuals, communities, social groups or institutions of any size and any level in society (Attwater & Derry, 2005). When dealing with natural resource management, stakeholders can be defined as “any group or individual who can affect the achievement or is affected by the achievement of a conservation project’s objectives” (De Lopez, 2001, p. 48).

When dealing with complex issues such as rhinoceros poaching, it is important to foster long term committed relationships between stakeholders and protected areas, this is essential for implementing effective conservation (Brooks, et al., 2015). There are many challenges when engaging stakeholders in meaningful environmental decision making, such as increased expense, lack of capacity, delayed decisions and the difficulty to measure these results. However these challenges can be more effectively overcome when stakeholder knowledge and concerns are included in the decision making process (Brooks, et al., 2015). De Lopez (2001) suggests that this is best done using a pluralistic view; recognising

the existence of differing opinions, values, perceptions and objectives. The protection of nature including the preservation of rhinoceros may be seen as a luxury in communities where many people live below the poverty line and often a trade-off between conservation and development is inevitable (De Lopez, 2001). Stakeholder management is one framework that can be used to manage these varying views. This is done by understanding and predicting the behaviour and actions of stakeholders and coming up with strategies to effectively deal with any issues (De Lopez, 2001).

The process of stakeholder identification should be based on a principle of inclusiveness rather than exclusivity (Breen, 2013). Once stakeholders have been identified, it is important to understand their interests and likely influence in the process and to understand the interests and motivations that drive their actions (Breen, 2013). These interests and motivations can differ and might conflict with the project objective, in the case of rhinoceros conservation, the selling of rhinoceros horn would be an example of such a conflict. The extent to which a stakeholder is able to impose their views is an important determinant as to the outcome of the situation. We usually assume that government has the most power but at times, collations of other stakeholders can bring sufficient influence to bear so that the government has to change its position on the issue (Breen, 2013). This is one of the goals of the “Rhino Art” project, that if sufficient volumes of art could be collected, the voices of the youth acting as a network could become a significant stakeholder in the “war” against rhinoceros poaching.

2.6 Communities and Conservation

The importance of stakeholder analysis in solving wicked problems as well as the important role community’s play as one such stakeholder has been established in section 2.5 above. This research focuses on the perceptions that the youth of Southern Africa have towards rhinoceros conservation but in order to understand this perception generation in the youth, the general perceptions of adults and leaders within rural community’s first need to be understood. In certain studies such as Fenio (2014) and Boonzaaier (2009), that have looked at the perceptions that communities have towards conservation, it was found that despite perceived benefits such as jobs, schools, clinics and income from tourism, local communities continue to participate in poaching and other illegal activities either directly or indirectly by failing to report these activities to the police (Fenio, 2014). To try and understand these apparently conflicting views, the perceptions that communities have towards conservation is looked in three categories namely conservation, economic and cultural. These categories mirror those that emerged from a study done on youth perceptions towards conservation in Kenya by Bruyere (2011) and for the ease of future comparison it was decided to use the same categories in the structure of this study.

2.6.1 Perceptions of communities: Conservation

It can be argued that in order to protect the environment from over exploitation local communities should be included in conservation decision making (Boonzaaier, 2009). This is particularly true of the Masebe community who live on the border of a Game Reserve and where the community is reliant on the land for subsistence such as gathering wood and grazing livestock (Boonzaaier, 2009). In another study, Bruyere et al (2011) found that community involvement assists with managing issues such as wood gather and grazing as well as other issues such as human wildlife conflict. Community engagement could also be key to reducing the escalating poaching crisis. Through effective engagement and support,

communities can work to dissuade youth from poaching and could provide crucial intelligence on illicit activities (Anderson & Jooste, 2014). This has been particularly successful in Namibia which has so far been spared the same excessive poaching rates as other countries in Southern Africa (Anderson & Jooste, 2014). In 2012, Namibia had only lost 0.04% of its rhinoceros to poaching (Ferreira, et al., 2014). Several conservation trusts worked with traditional leaders in the 1980's to impart a deeper understanding of the consequences of poaching and as a result of this partnership communities and local leaders were central to many conservation and land use decisions (Anderson & Jooste, 2014).

It is a different story in South Africa where in the wake of apartheid, South African protected areas were under increased pressure trying to reconcile natural resources with acute social and economic needs of the black rural majority (Picard, 2003). It was found that under the apartheid regime, protected areas deliberately excluded black residents from visiting, using or otherwise benefiting from them (Picard, 2003) and the creation of these protected areas usually involved the forced relocation of people long resident in those areas (Turner, 2010). This legacy led to the assumption that local communities did not sufficiently value conservation (Turner, 2010) which was not necessarily the case. Picard (2003) shows that an overwhelming majority of Zulu respondents actually perceived a positive association between nature conservation, tourism and improved local economic welfare. There was however still an element of mistrust and hostilities towards local management of these reserves (Picard, 2003).

Picard (2003) found that the perceptions towards government by the local residents was that it was governments (in this case KZN Wildlife) mandate to take land away from local communities and there was frustration that the authorities placed the priorities of flora and fauna above that of the communities (Picard, 2003). Picard's study was conducted in 2003 when there were high expectations that government would address issues on unemployment, poverty and tourism. Sadly, as seen in Boonzaaier (2009), residents of the Masebe community still expressed support for the concept of conservation but remained hostile towards conservation authorities. Even as recently as Fenio (2014), research conducted in communities alongside Kruger National Park showed that communities perceive a lack of job and earning opportunities through conservation and that this has translated into anger towards Park officials. In some cases, this has led to a desire to protect poachers just because they don't want to "Help the Park" (Fenio, 2014). Fenio (2014) states that this is a result of weak follow through on Park and government promises to scale up community development.

King & Peralvo (2010) suggest that community conservation projects often operate with a limited understanding of the perceptions community members have towards conservation. On the one hand Boonzaaier's (2009) research from the Masebe Game Reserve in Limpopo shows that perceptions about nature and nature conservation are still based on pragmatic values. These perceptions are rooted in their value system and clearly differ from western perceptions (Boonzaaier, 2009). Young and old in the local communities appeared to share the same perceptions about nature and nature conservation, despite the different levels of qualification. Attitudes about sustainable land use and conservation were not affected by formal knowledge acquisition (Boonzaaier, 2009). Boonzaaier (2009) does however call for further research to be undertaken to identify people's perceptions with regard to each animal and plant taking into account differences that might exist because of age, gender and education. This is

echoed by King & Peralvo (2010 p. 267) who found that perceptions within rural communities regarding conservation were heterogeneous, partial and frequently contradictory, depending on the level of analysis. One example of this was that perceptions towards conservation are tied to the amount of exposure to conservation the residents have received (King & Peralvo, 2010). King & Peralvo's research points to the importance of understanding what different perceptions could exist within communities and supports the need for a deeper understanding of youth perceptions towards rhino poaching.

Interestingly in Boonzaaier's report (2009), the interviewees were very opposed to hunting and condemned the poacher's methods of hunting. However, they only admitted that it was a cruel way of hunting after the interviewer prompted them. Another observation was that once visitors have seen an animal, there is no reason to drive around trying to see it again, therefore game viewing as a tourist attraction was seen as a once off attraction (Boonzaaier, 2009). This perception could potentially be changed by allowing youths the opportunity of experiencing game drives first hand so that they can understand and enjoy the experience.

Turner (2010) explains that for close to a century, a "fortress conservation" model was extensively adopted in which human activity was viewed as being harmful to nature. Over time the failure of fences, a continued decline in ecological conditions and an incline in the number of threatened species led to this model making way for community based natural resource management (Turner, 2010). Turner (2010) believes that it is this "fortress conservation" approach that has led to a number of problems which are still being dealt with today. An example of this is the Masebe communities from Boonzaaier's 2009 study who claim to have lost grazing land and therefore now own less cattle. Women from the same community complain that they are unable to collect fire wood and meat from culling is not being distributed to the villagers properly (Boonzaaier, 2009). In the case of Masebe Nature Reserve in Limpopo, ancestral burial sites lie within the Game Reserve and thus limits access to these important sites. As a result, traditional healers are unable to perform traditional ceremonies such as Rainmaking ceremonies in times of drought or have access to plants on the reserve that they use in their medicine. All of this leads to resentment towards the game reserve (Boonzaaier, 2009). According to Fenio (2014), there is an intense feeling of anger towards the Game Reserves, the Parks are perceived to not do enough especially when wildlife kill domestic animals and the owners are not compensated. Communities alongside Kruger National Park that took place in Fenio's (2014) study felt that they are entitled to kill animals for bush meat or that the Parks should provide the communities with meat (Fenio, 2014). This used to be the practice and since it has stopped, the anger has increased. Conflict and the perceived lack of access to resources such as employment, could be affecting the relationships between communities and conservation efforts (Fenio, 2014).

2.6.2 Perceptions of communities: Economic

Respondents from Picard's study in 2003 alluded to the tension between the economic benefits from the protected area and their community's simultaneous need for land. One example from an adult perspective is communities from the Masebe region (Boonzaaier, 2009), who tended to be passive in terms of what they expected from nature reserves, they expected income generation by means of employment but had very little imagination and creativeness in terms of using the reserve to create

their own income by selling art and crafts for example (Boonzaaier, 2009). In essence, the villages were not seeing money from the reserve either because of poor management or corruption and this lead to communities feeling disconnected from conservation and Park management. Similarly, communities close to Kruger National Park recognised that the economy is bolstered by tourists but they perceived that very little revenue trickles down to their communities (Fenio 2014). Despite these reservations, Picard (2003) found that in the Greater St Lucia Wetland Park region, regardless of which community the respondents resided in, all local residents perceived a positive association between nature conservation and their personal economic welfare (Picard, 2003).

The establishment of game reserves often means social dislocation and distress for local people and could result in anti-conservation ideology among rural communities (Ferreira, 2006). These negative perceptions can then be exacerbated by the promise of wealth from rhinoceros poaching. For example, Fenio (2014) found that in Massingir, a central hot spot for Poaching, located just outside the Limpopo National Park, the wealth from poaching is very noticeable. There are paved roads, new houses are being built and there is a prevalence of all-terrain vehicles and bars sporting big screen televisions and expensive alcohol (Fenio, 2014). This contrasts to Kabok which is the main town near Sabie Game Park in Mozambique where there are no paved roads and it is obviously a very poor area. This suggests that in some community's money derived from illegal rhinoceros poaching is being filtered out and in others it is being used within the communities. Factors such as these could influence the community's perceptions towards poaching and explain why there are variances in community perceptions based on geographic location (Fenio, 2014).

It follows that economic incentives are keys drivers in the way in which conservation is viewed (Fenio, 2014). Unfortunately the demand of Western conservation ideology often conflicts with the legitimate needs of usually impoverished rural communities (Ferreira, 2006). According to Challender & MacMillan (2014) the regulatory approaches used to try combat poaching are being overwhelmed by the financial incentives for poaching. This is due to the rising prices of rhinoceros horn and the growing poverty of communities in rural areas close to game reserves (Challender & MacMillan, 2014). Fenio (2014) shows examples of where rhinoceros poachers are seen as heroes as they earn vast amounts of money and then "Do good things for the community" and facilitate job creation when they spend their wealth locally (Fenio, 2014). Ferreira (2006) suggested that survival in economically depressed communities takes precedence over wildlife conservation as conservation is not achievable in circumstances where people are starving.

There can be a lot of money generated in communities around rhinoceros poaching. This could include community members who are not directly involved in poaching but who provide assistance of sorts. Examples of this are when community members can offer shelter and food to a poacher for the night and be paid a considerable amount of money for the inconvenience. Alternatively, they can pass on information regarding the whereabouts of rhino in the Park (Fenio, 2014). Furthermore, by not reporting known poaching activity to the police is assisting the criminal activity. This indicates that there is significant financial profit without the community member feeling like they are "doing anything wrong" (Fenio, 2014).

2.6.3 Perceptions of communities: Cultural

There is very limited academic research into the perceptions that youth who live close to game reserves have towards conservation. One study was done by Bruere et al, (2011) and in that study, they grouped their findings into three main categories namely, Economic, Conservation and Cultural. For ease of future comparisons and continuity, it was decided to use the same three headings to group the themes that emerged from the data in this study. The term “Cultural” may not be the best word to describe the human elements of the themes but for the purpose for the study, all information falling under this category refers to themes that have human implications and this is explained in more detail in section 3.5.2.

There are a number of moral issues that affect the perceptions that communities might have towards conservation and rhinoceros poaching. Fenio (2014) found that community members close to Kruger National Park admit that they know that poaching is illegal and morally wrong but they feel that there are few alternatives for survival (Fenio, 2014). This could contribute to the “us versus them” scenario, pitting the community against the Parks. The communities in Fenio’s (2014) study felt that poaching would decrease if there were more jobs available. However, Fenio (2014) also found that community members felt that once a poacher got a taste of the financial rewards they could continue to poach. A person might chose to poach as a means to survive but once they get used to the financial benefits the reasons for poaching could turn to greed (Fenio, 2014).

Anderson & Jooste (2014) show that in a town bordering the Kruger National Park, sixteen percent of the respondents admitted to knowing poachers living in their communities. Sixty-eight percent of these respondents said that they would be willing to identify poachers if they could be protected and the poachers would be jailed. However, fear of reprisals prompted many, including community leaders to remain silent. Some respondent’s believed that rangers and police were involved in poaching (Anderson & Jooste, 2014). According to Fenio (2014), all interviewees complained of corrupt police and rangers that aid in the poaching process. These community members also believe that there are few prosecutions and if convicted, poachers get away with minimal fines and little, if any jail time. The issue of fear within communities was evident in a number of areas such as the competition between poaching gangs in a community and the fear of being killed by either anti- poaching rangers or as an act of retribution for informing on poachers (Fenio, 2014).

Overall there is an understanding that something needs to be done in order to stop the poaching crisis and across all studies, referenced in this section, there is a general call for more local education and development programs in communities. Fenio (2014) found that managers and rangers in Mozambique say that the number one priority is to ensure that communities understand the role that Parks paly in economic development so as to mitigate the anger that currently exists (Fenio 2014). Secondly, there was a call for stricter enforcement of the existing laws. It is strongly perceived that high level politicians are involved in trafficking. Legal systems in both Mozambique and South Africa need to treat poaching and trafficking as serious crimes that result in harsher sentences (Fenio, 2014). Lastly, it was recognised that the rangers need far more advanced equipment in order to compete with the sophisticated

poaching syndicates. A key example is the need for more vehicles, more surveillance equipment and a need for more rangers (Fenio 2014).

Community based initiatives are often not well positioned to compete against state supported protected areas and private ventures. This coupled with the fact that community based natural resource management emerged from a conservation history of injustice, exclusion and dislocation (Turner, 2010) explains why there could be mistrust by communities towards conservation authorities. However, Ferreira (2006 p. 173) states that the most successful partnerships between communities and conservation authorities usually occurred when the latter have offered at least partial recognition of communal rights within community boundaries. Positive benefits from community and conservation partnerships do not necessarily have to be financial. Turner (2010) found that communities regaining titles to their ancestral home brings a huge sense of symbolic achievement (Turner, 2010). Conditions of engagements with partners such as government, where communities are empowered to make commercial decisions and there is explicit recognition of past injustices are all seen as factors that could be determinants of success (Turner, 2010).

Where the aesthetical value of nature tends to be emphasised in western cultures as a reason for nature conservation, the utility value among local communities, specifically regarding the Masebe people, appears to prevail (Boonzaaier, 2009). Boonzaaier's Masebe study (2009) showed that utility was emphasised and it was shown that only if an animal or tree has utility value will it be of value to conserve it. Only then will it be described as beautiful and what is beautiful does not necessarily coincide with the western perception of aesthetics. According to the Masebe community, something is beautiful because it can be utilised (Boonzaaier, 2009, p. 11). This becomes evident if the perceptions of the youth in section 4.2.4 in the Analysis Chapter below.

2.7 Perceptions of youth towards conservation

Engaging children and youth in environmental learning could be a key element in cultivating a potentially life long disposition of care for the environment (Lethoko, 2014). It is therefore important to understand what drives the perception generation of the youth and what might make them want to protect wildlife. Conservation is inseparable from people's worldview and concomitant values, this ties into accepted behavioural norms and setting of priorities (Boonzaaier, 2009). What leads to people's worldview is their local knowledge and the result of experience and underlying values, these are often unarticulated but tend to guide the behaviour of people to some extent (Boonzaaier, 2009). McDuff & Jacobson (2000) found that environmental attitudes are first formed during childhood when important influences such as interaction with natural areas, role models or school education programs become factors in shaping environmental interest and action (McDuff & Jacobson, 2000).

A potential problem with the youth in Southern Africa today is the lack of jobs available for matriculants. Fenio (2014) suggested that youth in selected communities around Kruger National Park were still hopeful while they are at school but the reality of not finding employment after school lead to disillusionment with the system and boredom (Fenio, 2014). The youth in Fenio's (2014) study suggested that embarking on an adventure to kill a rhinoceros and earn a lot of money, becomes more attractive than remaining idle in a community with few economic alternatives. Peer pressure is an additional

problem, especially when a youth is hungry, bored and unemployed and they see a friend making money from poaching and that could be one of the reasons for the problem of rhinoceros poaching increasing (Fenio 2014).

There are many examples where community representatives have been engaged in protected area management however these conservation efforts have often not engaged the youth and they are often detached from actual decision making or public input. This may prove to be a crucial missed opportunity as the youth are the next generation of stewards and advocates for conservation as well as the sustainability of communities and wildlife (Bruyere, et al., 2011). Understanding youth perceptions could assist area managers to anticipate how to proceed with their community based approaches currently and in the long term. It may also provide insights as to how we can build additional outreach and educational efforts at local schools and youth organisations. In Africa, the wildlife club movement represent the largest grassroots conservation organisation for youth on the continent (McDuff & Jacobson, 2000) and it is projects such as this and “Rhino Art” that could potentially shape the next generations perceptions towards rhinoceros poaching.

Today’s children are tomorrow’s elders, particularly in rural communities where there is limited scope to leave the community due to lack of employment opportunities (Bruyere, et al., 2011). It is therefore vital to understand the perceptions of the youth as they could be conservation partners in the future and by identifying how the youth currently perceive protected areas one would be better able to invest in building partnerships now that would pay dividends in the future (Bruyere, et al., 2011). The youth of today can also act as change agents for conservation. Change agents are often capable of broadening and deepening people perspectives of issues and can facilitate change (Lethoko, 2014). Lethoko (2014) cites an example where youth in Ethiopia were taught about causes and prevention of diseases at a school level and this directly led to a drastic decrease in the disease trachoma which had been prevalent at the time.

In a study looking at youth perceptions towards Wildlife Parks in Kenya it emerged that youth recognised the social and economic value of Parks but not their ecological and conservation value (Bruyere, et al., 2011). In the study conducted by Bruyere et al. (2011) students identified “illicit behaviour” as a negative impact of protected areas. These illicit behaviours included poaching, crime and corruption. Collectively there were more negative consequences associated with protected areas (161) than positive benefits (131). Although the strength of these beliefs were not measured, the study suggests that the youth have more negative perceptions towards Parks than positive ones (Bruyere, et al., 2011).

The youth, studied in the Samburu region in Kenya, most frequently mentioned economic returns and income as benefits of protected areas, this is consistent with other studies done with adults (Bruyere, et al., 2011). They believe that the Parks can offer income through tourism. The economic benefit comprised nearly two thirds of all responses. This suggests that when benefits of conservation are being taught, one should remember to highlight other non- economic benefits (Bruyere, et al., 2011). There was very little economic benefit seen by community in terms of job opportunities as staff are employed from outside the community and tourists do not stop in the village to buy arts and crafts. This is at odds

with the strong belief that the primary benefit of the Park is financial. Bruyere et al (2011) suggests that this disconnect between perceived and real financial gains could lead to non-compliance with Park rules and result in poaching amongst other “illicit behaviours” (Bruyere, et al., 2011).

Bruyere *et al* (2011), found that many youths mentioned the benefit of conservation of the protected areas, especially relating to the protection of plants and animals. This benefit was not seen in similar studies conducted with adults in the same area. This differentiation could be a promising point upon which future education programs could be built. The students from the Samburu region showed a basic understanding of the eco-system but lacked more complex ideas about the inter relatedness of ecological systems and cycles and how these assist human well- being. It could be assumed that there is therefore a need to look at existing education curricular and the manner in which teachers adapt to this (Bruyere, et al., 2011)?

Chapter 3 Research Methods

A mixed method approach was used to analyse data for this study and can be broken down into four main areas:

1. Study Area
2. Sample Size
3. Sample Design
4. Method of Data Analysis

Throughout these four sections, the framework of Theory U is used to guide the research process and shape the meta-thinking behind the analysis, ultimately to deepening understanding of the outputs of the content analysis. There are three main data samples in this research, namely:

- Rhino Art
- Art Messaging
- Summit Surveys

An iterative content analysis based on grounded theory was used as a way to uncover themes and patterns within the data samples. Following the seven steps of Theory U, illustrated in Map 3.1, represented each time the data was looked at from a “Seeing” perspective and a cycle of reflection and action that led to the emergence and understanding of the key themes. It was this process that led to the realisation of Objectives one and two as laid out in section 1.6 above. Allowing these themes and patterns to emerge through the following the U process, resulted in a deeper understanding of the perceptions that the youth, from selected populations of Southern Africa, have towards rhinoceros poaching.

3.1 Theory U

As explained in Chapter 2, it is widely accepted that when dealing with wicked problems such as rhinoceros poaching, a radically different approach is needed to try and improve the situation. One approach is to use the framework of Theory U to deepen one’s understanding of various aspects contributing to the overall wicked problem, in this case rhinoceros poaching. According to Laurance et al. (2012) many academic conservation studies make surprisingly few direct contributions to environmental conservation, especially when addressing wicked problems that render traditional scientific approaches ineffective. In this regard, this study is unique as it is based directly on an existing conservation project and outcomes from the study have been used as they emerge to help change and refine the methods used when communicating with youth on conservation issues. Further to this, Senge in Scharmer (2009) states that the key to understanding multiple unfolding crises lies in learning how to master the creative process that brings forth new realities collectively. This can be done by embracing, intuition and uncertainty and opening up to the impossible by “letting go” of established ideas and accepting a role in creating a future that embodies ideas (Scharmer, 2009).

Most scientists undertake their research using a clear *a priori* hypotheses, strong sampling design and robust statistical analysis and interpretation (Laurance, et al., 2012) Unfortunately this design often fails

to work in real world contexts where conservation dilemmas are not simple but rather complex and “wicked”. These problems are difficult to define and involve many stakeholders that all view the problem differently according to their values and ideologies. Resolving these problems requires a different mind-set, working with different rules and priorities and a willingness to look at large uncertainties and make gut- level inferences and decisions (Laurance, et al., 2012). The following research methodologies have been approached with this in mind and many aspects of the research have been viewed through the lense of Theory U which has guided the practice of thinking and action. In many instances the methods used in this study have changed and evolved iteratively as new insights were uncovered by Theory U thinking.

Laurance et al. (2012) concludes that when approaching conservation research, conservation projects or non-governmental organisations involved in conservation matters, should be engaged or worked with closely in order to determine which types of questions and issues are most pressing to that particular research area. It is argued that this type of research could help develop research topics that are innovative and multidisciplinary in nature and could foster important collaborations between conservation scientists and practitioners (Laurance, et al., 2012). This research has partnered with Project Rhinoceros KZN and the Kingsley Holgate Foundation and it is believed that this research will be able to address some of the real world rhinoceros poaching challenges and that key findings could be shared and implemented in a much needed time- critical manner.

3.1.1 Theory U in Practice

As already mentioned in Chapters 1 and 2, Theory U can be understood as a framework, a method and a way of being (Scharmer, 2015). This section will focus on Theory U as a method. This is done by following the shape of the letter “U” that this theory is named after as illustrated in Figure 2.1. Moving down the left hand side of the “U” involves observation and opening minds, hearts and will. By opening minds, old habits are suspended and viewed from an unbiased perspective, opening heart allows for empathy and by opening will, old thoughts are “let go” and new ideas are allowed to come forth. The bottom of the “U” is known as Presence and is a space for reflection where new knowledge is able to come to the fore. Moving back up the right hand side of the “U” is done through action and by exploring the future through these actions (Scharmer, 2015).

The journey through the “U” can be broken down into 7 Steps (Scharmer, 2009):

1. Downloading – re-enacting patterns of the past, viewing the world though one’s habits of thought
2. Seeing – Suspending judgement and see reality with “fresh eyes”.
3. Sensing – Connecting to the field and attending to the situation as a whole.
4. Presencing – Connecting to your deepest source from which your future starts to arise.
5. Crystallising – Envisioning a new future that wants to emerge.
6. Prototyping – explore the future through doing
7. Performing and Embodying – embedding the new practices in the context of a larger co evolving ecosystem.

These steps have been used as a guide for understanding and interpreting the themes and patterns that emerged from the ‘Rhino Art’, ‘Art Messaging’ and surveys collected. Using this framework to analyse the data resulted in new insights arising iteratively. In some cases, these insights resulted in a necessary change to the method process in order to allow further insights to emerge. This process is explained in the following method sections.

3.2 Study Area

3.2.1 Geographical Breakdown

Art from the ‘Rhino Art’ Project that was used in this study was collected from the following Southern African Countries: South Africa, Swaziland, Namibia and Mozambique. Art from outside of South Africa is limited but it has been included in this study to illustrate the potential differences in perceptions that youth from different backgrounds and Nationalities could have towards conservation.

Initially the intention of this study was to analyse all art that had been collected for the ‘Rhino Art’ Project. However, this number was growing exponentially and by the end of 2014 nearly 200,000 pieces of art were in storage. It was realised that it would be impossible within the scope of a masters level research process to analyse such a large sample and a decision was made to only analyse art that was collected in 2013 with the exception of one school in Namibia from 2014.

The ‘Rhino Art’ project was launched in April 2013 as part of the Kingsley Holgate led expedition called ‘Izintaba Zobombo’ which travelled through a rectangle encompassing the Lubombo Range of Mountains. This includes the Kruger National Park and its nearby private reserves, the ‘Rhino War Zone’ along the border with Mozambique, then south through the game reserves of Swaziland and into Northern KwaZulu- Natal. This block is the largest concentration of wild rhinoceros populations in the world. This initial phase reached approximately 6000 children in South Africa, Mozambique and Swaziland in areas adjacent to rhinoceros protection areas. The art collected during this phase of the project makes up the bulk of the sample used in this research.

Based on the success of the initial stage, the project was extended and schools from the Free State, Eastern Cape, Cape Town, Gauteng as well as urban schools in KwaZulu Natal were added to the study sample of 2013 Art. The only School that was visited in 2014 that was included in this study was the school from Namibia. It was included to show the potential differences in perceptions based on Nationality.

Ultimately the schools that make up this study were selected randomly by Project Rhino KZN and the Kingsley Holgate Foundation based on the availability of the physical art that has been collected within the above framework at the inception of the study. The final breakdown of schools included in the study can be seen in Table 3.1. This table shows the actual number of schools that were included in the study by region and a further breakdown indicating whether the school is located in an urban or rural area. A visual representation of the physical locations of the schools used in this study can be seen plotted on a map of South Africa in Figure 3.1 below.

Table 3.1 Geographic Distribution of Schools that took part in the "Rhino Art" Project shown as Total and Rural versus Urban.

| Region | Total no. Schools | Rural Schools | Urban Schools |
|-----------------------------|-------------------|---------------|---------------|
| KwaZulu- Natal | 97 | 70 | 27 |
| Mpumalanga | 12 | 11 | 1 |
| Gauteng | 6 | 4 | 2 |
| Free State | 4 | 2 | 2 |
| Cape Town | 2 | | 2 |
| Eastern Cape | 1 | | 1 |
| Mozambique | 4 | 4 | 0 |
| Swaziland | 4 | 4 | |
| Namibia | 1 | 1 | |
| Total no. of Schools | 131 | 96 | 35 |



Figure 3.1 Map of Southern Africa showing a visual representation of the distribution of schools that took part in the "Rhinos Art" Project.

3.2.2 Sample Size

The total number of pieces of art that were captured and analysed for this study was 6292 representing 40% of the original sample of 2013 “Rhino Art”. A breakdown of the art per region can be seen both as the total number of art pieces and as a percentage of the total study sample in the Table 3.2 below. The percentages are represented in two ways, firstly as a percentage of art per region and then the last two columns show the breakdown of the art per region broken down in to art from urban versus rural origins.

Table 3.2 Breakdown of “Rhino Art” per region expressed as the actual number of art pieces and as percentages.

| REGION | NUMBER OF ART PIECES | | | PERCENTAGES | | |
|----------------|----------------------|-------------|-------------|------------------------------------|------------------------------|------------------------------|
| | TOTAL | RURAL | URBAN | TOTAL (as % of Total Art) | RURAL (as % of Region) | URBAN (as % of Region) |
| KwaZulu- Natal | 4549 | 3207 | 1342 | 72,30 | 70,50 | 29,50 |
| Mpumalanga | 326 | 179 | 147 | 5,18 | 54,91 | 45,09 |
| Gauteng | 339 | 287 | 52 | 5,39 | 84,66 | 15,34 |
| Free State | 163 | 60 | 103 | 2,59 | 36,81 | 63,19 |
| Cape Town | 241 | 0 | 241 | 3,83 | 0 | 100 |
| Eastern Cape | 27 | 0 | 27 | 0,43 | 0 | 100 |
| Mozambique | 20 | 20 | 0 | 0,32 | 100 | 0 |
| Swaziland | 276 | 276 | 0 | 4,39 | 100 | 0 |
| Namibia | 80 | 80 | 0 | 1,27 | 100 | 0 |
| Unknown | 271 | 0 | 271 | 4,31 | 0 | 100 |
| TOTAL | 6292 | 4109 | 2183 | 100 | 65 | 35 |

3.2.3 Sample Size: “Art Messaging”

The same sample was used for the “Art Messaging” however, all non-English messages and art where there were no messages at all, were excluded from this sample and as a result the total number of messages captured and analysed was 4910. This represents a total of 78% of the total “Rhino Art” captured. Table 3.3 below shows a breakdown of the “art messages” per region and can be seen as both the total number of messages and as a percentage of the total study sample. The percentages are represented in two ways, firstly as a percentage of messages per region and then the last two columns show the breakdown of the messages per region broken down in to messages from urban versus rural origins.

Table 3.3 Breakdown of “Art Messaging” per region expressed as the actual number of art pieces and as percentages.

| REGION | NUMBER OF ART PIECES | | | PERCENTAGES | | |
|----------------|----------------------|-------------|-------------|------------------------------------|------------------------------|------------------------------|
| | TOTAL | RURAL | URBAN | TOTAL (as % of Total Art) | RURAL (as % of Region) | URBAN (as % of Region) |
| KwaZulu- Natal | 2078 | 1356 | 722 | 42,32 | 65,26 | 34,74 |
| Mpumalanga | 168 | 97 | 67 | 3,42 | 57,74 | 39,88 |
| Gauteng | 187 | 159 | 28 | 3,81 | 85,03 | 14,97 |
| Free State | 74 | 74 | 0 | 1,51 | 100 | 0 |
| Cape Town | 239 | 0 | 239 | 4,87 | 0 | 100 |
| Eastern Cape | 21 | 0 | 21 | 0,43 | 0 | 100 |
| Swaziland | 146 | 146 | 0 | 2,97 | 100 | 0 |
| Namibia | 80 | 80 | 0 | 1,63 | 100 | 0 |
| TOTAL | 4910 | 2901 | 2001 | 100 | 59 | 41 |

3.2.4 Sample Size: “Youth Rhino Summit” Surveys

There were a total of three surveys completed for this study. The first was at the beginning of the 2014 “Youth Rhino Summit” and includes a total of 132 surveys from youth representing 12 countries and 20 Community Rhino Ambassadors employed by Ezemvelo KZN. The second survey was conducted at the beginning of the 2015 summit with 72 delegates from South Africa taking part in the survey. The third and last survey was conducted at the close of the second summit with the same 72 delegates as the second survey. A visual representation of the summit surveys collected can be seen in Table 3.4 below.

Table 3.4 Summary of the number of delegates who completed Summit Surveys

| SURVEY'S CONDUCTED | No Of Delegates |
|--------------------|-----------------|
| 2014 PRE SUMMIT | 132 |
| 2015 PRE SUMMIT | 72 |
| 2015 POST SUMMIT | 72 |

The delegates from the summit could also be split in to representatives from urban and rural backgrounds. At the first “Youth Rhino Summit” the rural delegates were represented by a total of 20 Rhino Ambassadors, 20 delegates sponsored from rural Zululand and 10 delegates from rural Swaziland. At the second summit, there were 20 delegates sponsored from rural Zululand. This breakdown of delegates from urban versus rural background is shown in Table 3.5 below.

Table 3.5 Delegates attending “Youth Rhino Summit” split by Urban versus Rural background.

| | TOTAL DELEGATES | Total Urban: Number | Total Rural: Number | Total Urban: Percentage | Total Rural: Percentage |
|--------------------|------------------------|----------------------------|----------------------------|--------------------------------|--------------------------------|
| 2014 SUMMIT | 132 | 93 | 39 | 70% | 30% |
| 2015 SUMMIT | 72 | 52 | 20 | 72% | 28% |

3.3 Sampling Design

Two sample sets have been used in this study. The biggest sample and the bases for the research is the children’s art. The art is analysed in two parts; firstly, the actual pictures themselves, “Rhino Art” and then what has been termed “Art Messaging”. The messages are the actual thoughts that children have written on their art depicting what rhinoceros poaching means to them. The second sample is made up of two surveys that were conducted at the “Youth Rhino Summits”, an extension of the “Rhino Art” project.

3.3.1 Design of Art Sample

The use of visual research methods has become increasingly widespread and are now firmly entrenched in major fields of enquiry (Knoblauch, et al., 2008). Visual data is becoming both the subject matter and the methodology of social scientific enquiry and how one approaches this data in a scientific, analytical and theoretical manner is becoming increasingly important (Knoblauch, et al., 2008).

As already mentioned, all art and messages used for the purpose of this study emanated from an existing Art Project run by the Kingsley Holgate Foundation. The project is called “Rhino Art; Let the Children’s Voices Be Heard” and the initial project ran from April to June 2013 in the rectangle encompassing the Lubombo Range of Mountains. This rectangle contains the largest concentration of wild rhinoceros populations in the world. Based on the success of this initiative, the project has been extended indefinitely and opened up to urban and rural schools in Southern Africa. To date over 250,000 pieces of art have been collected. It is important to note that all art and surveys used in this study were anonymous and no names were recorded at any time.

The art was obtained by visiting schools throughout Southern Africa where a short presentation on Rhinoceros Poaching is given to the students. The quality and length of this training is dependent on the time allowed by the school and the time constraints and experience of the trainer. The learners were then given an A3 piece of paper with the outline of a rhinoceros on it and they are asked to colour the picture in whatever way they wanted and if possible to write a message as to what Rhinoceros Poaching means to them. In some cases, the art was done in a controlled environment with teacher’s guidance and in other cases the children were left largely unassisted. The duration for the learners to complete the art also varied as it depended on when the research team would be able to return to the area. Ideally the learners were given a week to complete the task.

The art allows for a non-written expression of how the youth of Southern Africa perceive rhinoceros poaching. The art varies in quality and in the analysis of the art, each drawing has been rated on a scale from 1- 6 where 1 is Basic and 6 is Excellent. The total art that was chosen to be analysed was randomly selected by the Project Rhino KZN and Kingsley Holgate Teams. This was done based on the availability of the physical art at the inception of this study and comprised of art representing 131 schools.

For the purpose of this study, art that was collected during 2013 was selected for this study. However, there was one exception which was art from a school in Namibia which was collected in 2014. At present, only one school from Namibia has taken part in the “Rhino Art” project. Even though this happened in 2014, it was decided to include this school into the research sample. The reason for this was that it offered a valid, if small, look at what perceptions youth have towards rhinoceros poaching in this country where they have so far managed to control the rates of rhinoceros poaching compared to other Southern African countries. This is one example of where the insight that having art from another country would enhance the sample and could possibly offer a different perspective to the art from South Africa and Swaziland arose and led to a change in the original methodology.

Art from the following areas are included in the study: KwaZulu- Natal, Cape Town, Eastern Cape, Gauteng, Free State, Mpumalanga, Mozambique, Namibia and Swaziland. This art was collected from youths from grades 1 to 12 which translates to ages from 6 to 21. The art emanated from 131 schools as per Table 3.1 above.

Initially convenience sampling was used and the art was captured systematically working box by box. This method accounts for 68% of the art used in this study. However, the enormity and unpracticality of this system in terms of time allocation meant that a non-proportionate quota sampling method was adopted for the balance of the art. There were a number of reasons for changing the sampling method which emerged iteratively. It became apparent that capturing the art was a hugely time consuming task as each piece had to be photographed and then the message was transcribed. A total of 15588 pieces of art had been initially selected for the study and after capturing 4288 pieces of art, it was clear that it was highly impractical and unnecessary to capture the full sample. The idea of capturing the full sample was therefore “let go” and the process of selecting a representative sample for the balance of the art began. It was recognised that vast amounts of the art that has been captured included art with little or no value in terms of uncovering the perceptions that the youth have towards rhinoceros poaching. This was because the art was either very basic or contained no messages or clues as to the perceptions the artist held towards conservation. There were also batches where there was a lot of repetition and it was evident that the teacher had prepared a template for the children to work off and therefore the youth’s views were not truly represented.

When changing to non-proportionate quota sampling for the balance of the art, an average of a 20% sample from each remaining school was selected. This was done by “letting go” of the view initially held that all the art needed to be documented and by viewing the sample as if for the first time. The remaining art was suspended and examined from a “seeing” perspective and the balance of the art was selected in the following manner. First the basic and repetitive art explained above were eliminated. The experience and insights gained from having analysed so much art in the initial process were then used to

select a smaller, more manageable sample for the balance of the art. Ultimately this led to a total of 40% of the art received being analysed as part of this study.

Figure 3.2 below is an example of art that represents art of a very poor quality that offers no new information. It also shows an example of art where the teacher has prepared a template resulting in repetition of the same message. These are examples of art that were excluded from the new sample.

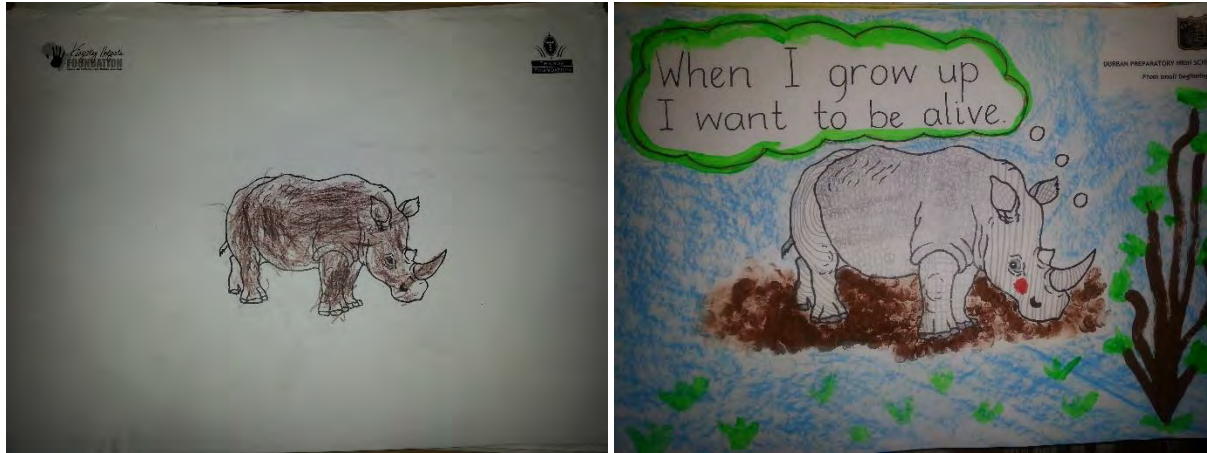


Figure 3.2 Examples of Art that was excluded from the balance of the study.

3.3.2 Design of Art Messaging Sample

This sample was collected in the same manner as explained for the “Rhino Art”. The only difference is that all art that was not written in English and art where there were no messages at all, were excluded from this sample. The initial hope was to have messages written in other languages such as Zulu or Portuguese included in the study but it emerged that this was not possible within the scope of this study. The main reason for this was insufficient funds to secure a translator for this work and this could be an opportunity for a further study of this nature at a later stage. Another problem that emerged that led to this change in methodology was that in many cases the handwriting on the art was so poor that when transcribed it made no sense and the translator would be unable to work off the transcribed messages. They would have needed to have access to the original art in order to translate what had been written and this was not a viable option. Viewing this problem through the lense of Theory U ultimately led to the decision to omit all art that was not written in English.

By taking out all non-English messaging, 10 schools were eliminated from the sample completely including all schools from Mozambique, 1 school from the Free State, 2 from Mpumalanga and 3 from KwaZulu- Natal. The sample size was reduced by a total of 1383 pieces of art.

3.3.3 Design of Survey Sample

Again through a series of reflection and action, the team identified a need to recognise and reward artists who has excelled in the “Rhino Art” and shown a commitment to conservation. It was realised that a platform was needed where the youth of today could interact and form networks with each other and be able to converse and learn from leaders in the industry. Through this process it was decided to host a youth summit based on the issue of rhinoceros conservation.

At the same time the limitations of the “Rhino Art” project became evident in terms of the amount and quality of information that could be obtained from the art messaging. It was recognised that the summits were an ideal opportunity to interact with the youth on a deeper level and gain insights into their perceptions towards rhinoceros poaching. The delegates were therefore asked to partake in a survey with a combination of structured questions aimed at better understanding the way the youth viewed conservation and rhinoceros poaching.

This sample includes the delegates who attended the “Youth Rhino Summit” in September 2014. One hundred and twenty of these delegates were selected from countries around the world including America, Sweden, New Zealand, England, Chile, China, Brazil, Botswana, Swaziland, Mozambique, South Africa and Vietnam. All of these delegates were selected as outstanding students who excelled in the “Rhino Art” project at their schools. The delegates were aged between 14 and 17.

A further 20 delegates were Community Rhinoceros Ambassadors who were selected because of their involvement in rhinoceros conservation. These delegates, aged between 24 and 34, are employed by KZN Ezemvelo to educate local communities on the importance of rhinoceros conservation. These Ambassadors have been trained on the “Rhino Art” Project and they use the project as way of communicating with the youth in their communities about the rhinoceros poaching crisis. They were invited to the summit to share their experience of teaching communities the value of conservation.

A second summit was hosted in July 2015 with 72 delegates from around South Africa. Due to the new constraints of minors travelling in South Africa, this summit was limited to South African citizens only and largely focused on disadvantaged youths.

Delegates for the initial 2014 “Youth Rhino Summit” were selected in a number of ways. Partners of the “Rhino Art” Project were asked to source suitable delegates from different regions both locally and internationally. These delegates were usually winners of the “Rhino Art” competition that had been run in their region. Sponsored rural delegates were selected by organisations who work in the communities and who identified youth who showed interest and potential. There were some individuals who heard about the summit through the “Rhino Art” project and requested to join. Twenty Ezemvelo Rhinoceros Community Ambassadors were asked to attend so that they could learn from the summit as well as act as mentors to the delegates given that they were already working in conservation. All delegates attending the first summit were required to complete a survey on arrival so that a base level of understanding regarding conservation and rhinoceros poaching could be established.

The delegates from the second summit held in 2015, were all South African due to the new travel laws making it difficult for youth to travel into South Africa. Invitations were sent to 100 schools in South Africa and children who were interested were invited to attend. A further 20 delegates were sponsored and selected by experts working in rural areas on the borders of game reserves in Northern KwaZulu-Natal. A community youth centre from Chatsworth expressed interest and selected fourteen delegates to represent Chatsworth at the summit.

Again the delegates were asked to complete a survey. Learnings from the first summit showed that although a base understanding of the youth perceptions was established at the start of the summit, the organisers had failed to accurately gauge the effect the summit had on the youth and if it had changed their perceptions in anyway. It was therefore decided that in the case of the second summit, the delegates would complete the survey at both the beginning and at the end of the summit in order to assess if and how their perceptions might have changed after being exposed to more information on rhinoceros conservation. All three of these surveys have been analysed to form part of this study. Copies of the full programs for the “Youth Rhino Summits” have been included in Appendices F and G as a reference to what academic content the delegates were exposed to while attending the summits.

3.4 Questionnaire Development – “Youth Rhino Summit” Survey

The summit survey was developed in conjunction with the academic advisor for the “Youth Rhino Summits”. Copies of these questionnaires can be found in Appendices H, I and J. The purpose of the summit surveys was to establish the following:

1. Have the delegates seen rhinoceros in the wild?
2. What are the biggest issues facing rhinoceros preservation today?
3. What should government be doing differently to combat rhinoceros poaching?
4. What should conservation agencies be doing differently to combat rhinoceros poaching?
5. Do the delegates think rhinoceros will become extinct in their lifetime?

The purpose of the survey was to establish the base level of understanding of rhinoceros conservation that the delegates had at the start of the summit. The reason for this was twofold. Firstly, so that the academic facilitators of the summit would know the level of understanding that the delegates had regarding rhinoceros poaching and could amend their teaching accordingly. It was also recognised as an opportunity to gain deeper insights into the perceptions that the youth have towards conservation that could compliment and corroborate the themes and trends already identified in the “Rhino Art”.

At the second summit it was recognised that there was another opportunity to get even more insights into youth’s perception and how their perceptions with respect to rhinoceros poaching could be changed when exposed to education. For this reason, it was decided that the delegates had to answer the same survey at the beginning and at the end of the summit so that growth and change on perceptions could be documented. A combination of both closed and open question were used and in the case of the 2015 summit, the same questions were asked at the start and again at the end of the “Youth Rhino Summit”.

At the time of the summit the “Rhino Art” team was already aware that the art and art messaging could only provide limited information in terms of how youth perceive rhinoceros poaching. The delegates at the summit gave the “Rhino Art” team the opportunity to interact with youth on a deeper level and by developing a survey for all the delegates to take part in, we could deepen understanding of what perceptions the youth have towards conservation.

3.5 Methods of Data Analysis

3.5.1 Method of Data Analysis: “Rhino Art”

Initially only the art messaging was recorded and analysed for this study and the art itself was considered secondary to the messaging. This was identified as a shortcoming in the research as the art was always the primary focus of the project and had been chosen to represent the youth that were not fluent in English. Once this thought had become apparent it was vital to act on it and analyse the art in a systematic manner by doing this the value of the information in the drawing themselves was recognised and the plan to include this data in the study was crystallised and acted upon.

All art selected for this study was photographed and code named so that it could be cross referenced to a spreadsheet that contained all relevant details concerning the art such as geographic location, age of artist and name of school. All images were then reviewed using a content analysis approach. In the case of the art, the quality of drawing themselves were rated on a scale of 1 – 6 with 1 being poor and 6 excellent. This was viewed as an important step as with such a large data base and art originating from such varying backgrounds in terms of both age and sophistication, it was important to illustrate the variances within the art sample.

The analysis of the “Rhino Art” was done using an emergent coding approach (Stemler, 2001) Ideally Emergent coding is done with 2 or more researchers so that they can check the reliability of the coding. As mentioned in section 1.7, a limitation of this study is that the coding was only done by the researcher and will therefore be subjective. The emergent coding was undertaken by independently reviewing the “Rhino Art” and a number of themes were identified forming a checklist. A grounded theory approach was used to uncover the themes from the art. Applying the practice of thinking and action guided by Theory U, this checklist was modified and refined. The grounded theory approach allowed the themes to emerge iteratively, moving through the sample new ideas formed as new elements were recognised in the art. An example of this was tears falling from the eyes of a rhinoceros. It was only when a particular drawing with a rhinoceros crying caught the attention of the researcher that the significance of tears representing sadness and loss became apparent. Once tears had been recognised as potentially significant, tears were added to the checklist and the art was reviewed again so that the occurrence of tears could be recorded. Each time this process was repeated it represented a journey through the “U” as seen in Figure 1.2 resulting in a deepening of understanding of the perceptions that youth have toward rhinoceros poaching.

The art was viewed using the process of “Seeing” and through this process, old ideas were let go and new thoughts were crystallised and prototyped ultimately resulting in the final checklist that was then used to apply coding or by assigning a score of “1” each time a theme appeared (Stemler, 2001). Theory U guided the grounded theory approach and resulted in a deeper understanding and appreciation for the themes that emerged from the drawings.

Using this emergent coding and grounded theory approach, the variance in the quality of the “Rhino Art” was established by physically observing each piece of art and assigning a score of “1” to the applicable standard of art and the type of art material that was available to the artist.

The following criteria were used as a guide when rating the quality of the art:

1 Poor: Poor colouring in of the rhinoceros using only one or two colours and no other elements on the page.

2 Basic: Poor colouring in of the rhinoceros using only one or two colours and another element on the page such as a tree or a mountain.

3 Average: Adequately coloured in rhinoceros with a few other elements on the page

4 Above Average: Well coloured in rhinoceros. Good use of colour or detail and a few elements on the page.

5 Good: Good use of colour on both the rhinoceros and the background. Detailed elements in the background.

6 Excellent: Exceptional art quality, good use of colour and clever use of themes to show the overall message of conservation.

Again using the emergent coding approach, various elements that were drawn in the art were identified such as poachers, policemen, helicopters or other animals. These elements were established in an iterative process following a preliminary examination of the art. Once again, each time one of these elements appeared in a drawing it was assigned a score of 1. This allowed for a numerical score to be assigned to various aspects of the art as a way of eliminating bias.

The art was analysed and grouped into four main areas.

1. Quality of Art
2. Access to Art Material
3. Reference to Poaching in terms of drawing a poacher, police or weapons and graphic drawings of Rhinoceros with their horns hacked off.
4. Drawing showing specific items in the picture such as helicopters, rainbows and other animals.

3.5.2 Method of Data Analysis: “Art Messaging”

As outlined above, thousands of pieces of art were collected from around Southern Africa through the “Rhino Art” Project. When the art was collected and viewed in the field, it was often done under huge time constraints and collected by various members of the “Rhino Art” team. This meant that most of the art messages were not read thoroughly and that there was no central point of collation for these messages. There was also a tendency for highly emotive messages to be remembered which resulted in a biased outlook of the art work. The value of the information within the art messaging was recognised and the need for an analytical study of it was identified.

All art messages were transcribed and saved in a spreadsheet with each message saved next to the correct corresponding code name that had been given to each photograph of the “Rhino Art”. Important

demographic details such as the age of the artist and the name and location of the school were also recorded but it should be noted that all “Rhino Art” and “art Messaging” were kept anonymous. An iterative content analysis process and grounded theory were then used to identify patterns and trends and key themes that emerged from the art. The process that was used in the example of rhinoceros tears in section 3.5.1 above, was also applied in the analysis of the “Art Messaging”. The themes that emerged from the grounded theory analysis were changed and refined using the practice of reflection and action of Theory U as new insights arose and understating of the themes grew and deepened.

The aim of the analysis of the art messaging was to establish a baseline understanding of the perceptions that school going children have towards rhinoceros conservation and poaching. Analysis was done using descriptive, inferential statistics in order to summarise the large volumes of information collected and was based on dependent variable answers. Coding is an essential element of content analysis and through this process categories were established. Initially 52 themes were identified and these themes were broken down into 10 sub categories and further 3 categories, namely; Conservation, Economic and Cultural. An interpretive, iterative process was used in the generation of themes and identification of patterns and interrelationships. In this case the themes emerged and developed from the data in a posteriori manner.

The assigning of the score of “1” to the themes allowed for a quasi-statistical method of content analysis where textual data is turned into quantitative data that could be statistically manipulated. This technique allowed for the comparison of individuals, groups and distribution of units across categories in an objective and systematic manner. The reason for coding the data in the described manner was to eliminate bias of the researcher. It was observed that there was a tendency to place greater importance on art messaging with high emotional content. By coding the messaging, bias could be eliminated and the data was given numerical rigor.

Using the inductive technique of grounded theory, deductive and inductive logic was combined in an iterative process to analyse the data. By constantly comparing the data with the emerging categories and information, patterns and themes were established and defined. Trends in these themes were then further analysed by looking at factors that could have an influence on the perceptions of the youths such as location, age and history.

The first step in the content analysis process was to establish a basic level of understating though the capture process which involved photographing the art and transcribing the messages. During this initial process, ideas began to form as to what themes could emerge and all original expectations had to be let go in order for the new ideas to come forth. One example of letting go of original expectations was that when the “Rhino Art” team worked with the art in the field, there was a tendency to focus on highly emotive messages such as a call to honour the late Dr Nelson Mandela by saving rhinoceros from extinction. These messages would remain top of mind and created bias in the “Rhino Art” team as to how the youth perceived rhinoceros poaching. During the capture process of transcribing the messages it became evident that although the emotional messages remained top of mind with the project team, the reality was that statistically very few of the messages actually contained a high level of emotional content.

The data was then reviewed iteratively by going through the content thoroughly a second and third time. Each time this process was repeated it represented a journey through the Theory U process explained in Figure 1.2. During the capture process obvious themes were identified and added to the checklist such as rhinoceros being part of the “Big 5” and saving rhinoceros so that future generations can see them. By viewing the messages repeatedly, new unexpected themes were identified such as the ideas that rhinoceros horn contained gold. As the new ideas emerged they were added to the checklist and coded. Through this process it could be established if these ideas were specific to certain areas. As is discussed in 4.2.6 in more detail, it emerged that the reference to rhinoceros horn containing gold was limited to one particular school in Swaziland and action could then be taken to correct this erroneous perception that the youth had towards rhinoceros poaching. Through this process of reflection, identifying this particular perception and then the resultant action of talking to the teachers at the school in question added to the overall knowledge and deepened the understanding of what perceptions youth have towards rhinoceros poaching.

Ultimately 52 themes in total were identified and needed to be simplified and broken into sub categories and categories. Firstly, the 52 themes were grouped together into sub categories based on similarities. The lense of Theory U was employed during this process by suspending the themes and viewing them from a fresh perspective allowing for similar characteristics and themes to emerge so that the themes could be grouped together. This process resulted in 10 sub categories being identified and prototyped. There were similarities between these sub categories that emerged in this study and those identified by Bruyere et al. (2001 p. 176) in their study on youth perceptions towards conservation in the Samburu region in Kenya. It was therefore decided to use the same three main categories that were used in that study namely, Conservation, Economic and Cultural. The reason for this was that due to the limited research into youth perceptions toward conservation and issues such as rhinoceros poaching, using a similar approach would allow for comparison to be made both in this study and in potential future research. This decision was reached by thinking shaped by the Theory U process. By letting go of preconceived notions, the act of presencing allowed for the idea that the two studies could potentially work together in the future, to emerge and the analysis method was embodied and utilised.

3.5.3 Method of Data Analysis: “Youth Rhino Summit” Surveys

The delegates who attended the “Youth Rhino Summits” were required to answer a survey made up of a combination of multiple choice, “Yes or No” and open ended questions. The purpose of these surveys was to gain a deeper understanding of youth perceptions towards conservation and rhinoceros poaching in particular. By asking questions about specific issues pertaining to rhinoceros poaching one could identify trends in perceptions towards conservation on a deeper level than one could by analysing the art and art messaging alone.

The answers to the multiple choice and “Yes or No” questions were captured in a table to be represented in a numerical manner. The answers to the open ended questions were transcribed and once again a content analysis and grounded theory was used to identify themes and patterns in the answers. This was set up in an excel spreadsheet using descriptive statistics. For each question a number of themes emerged in the answers. Again the data was coded by assigning a score of “1” each

time a particular theme appeared in an answer so as to eliminate bias. The number of times a theme was mentioned could then be added up and expressed as a percentage of how many of the delegates mentioned that particular theme. These percentages were tabulated so that the answers could be compared across all three surveys. It should be noted that the total percentages do not add up to 100% as most delegates mentioned more than one of the identified themes in their answers.

3.6 Constraints and limitations

It must be noted that the researcher is part of the “Rhino Art” team. This allows for unique insights into how the project runs and how the outcomes from this research has changed and defined the project going forward. There is however, the risk that this relationship will result in a biased and subjective view on the analysis of the art. In order to eliminate this bias and subjectivity, a content analysis approach was used and a quantitative value was assigned to a qualitative sample.

Another limitation of this research is that the Art used for the study was collected from an existing project and is therefore not evenly distributed. The majority (73%) of the art was collected in KwaZulu-Natal due to travel and time constraints. The art collected from other regions is not statistically representative but the differences between the regions even with these very small samples suggest that there is a need for further study. For this reason, these samples have been included in the study. A further limitation is that only English “Art Messaging” was analysed. There were messages in Zulu and Portuguese and these messages could be analysed as part of another study.

In terms of the content analysis across all research areas, namely the art, art messaging and surveys, only one researcher actually analysed the data and despite using coding as way of eliminating bias there will be elements of subjectivity.

Chapter 4 Analysis of Results

The aim of this research was to explore whether Theory U was beneficial in leading to a deeper systemic understanding of the perceptions that selected youth populations within Southern Africa have towards rhinoceros conservation.

The objectives of the research are to:

1. Identify key themes in the youth perceptions that emerge about rhinoceros poaching from the analysis of the art, art messaging collected and surveys conducted.
2. Seek patterns that emerge based on the geographic location of where the art was collected from within selected populations within Southern Africa.
3. Employ the lenses of Theory U to better understand how selected leaders have developed into a network of co-thinkers and are transforming their perceptions on rhinoceros poaching based on the key outcomes that emerged from the art, art messages and surveys.

In the following chapter the first two objectives are achieved by identifying a number of themes that emerged from the available data and it is shown that there are indeed clear differences in the themes and patterns that emerge based on geographic location. All observations were made using the lense of Theory U as a guide which led to a deeper understanding of the perceptions that the youth of Southern Africa have towards rhinoceros poaching. Each pattern that emerged as a result of the content analysis of the data was changed and restructured by following a number of cycles through the “U” until a clear representation of the data could ultimately be shown. It was necessary to find a way of showing a quantitative representation of a very large qualitative sample. As described in Chapter 3, the sample design had to be changed mid- study to accommodate such a large sample, within the scope of a masters level research process.

What follows below is an analysis of all three data samples showing clear and important themes. When viewed through the lense of Theory U, these themes help reveal a deeper understanding of the overall wicked problem of rhinoceros poaching. There are examples where early findings in this research have already been used by the “Rhino Art” team, who developed in a network of co-thinkers and changed their perceptions as to how to run the “Rhino Art” project. One example of this transformation of perceptions was how the “Rhino Art” team recognised the importance of voice of the youth in addressing some of the issues that surround the wicked problem of rhinoceros poaching.

4.1 “Rhino Art” Analysis

From the inception of the “Rhino Art” project in April 2013, the focus of the project was children’s Art. Art has been prototyped as a way to interact with children in a previous project run by the Kingsley Holgate Foundation and based on the success of this project, art was selected as the bases for a rhinoceros education program. Art as a medium was specifically chosen as it would be able to reach a wide audience and include youths from all backgrounds regardless of education level or language giving an equal platform to youths to express their views on conservation and rhinoceros poaching in particular. The objective of the “Rhino Art” project was to collect a record number of youth art in support of rhinoceros conservation.

During this study, the initial focus was on analysing the “Art Messaging”. The initial process involved photographing the art and then transcribing the messages written on the art. The very fact that transcribing the art was such a lengthy process resulted in the focus of the study shifting towards the content of the messages and the art itself was overlooked. In a moment of presence, this oversight was realised and the need for the inclusion of the analysis of the art was recognised. The first journey through the “U” process, explained in Figure 2.1, of analysing the art began with viewing each photograph of the art as if for the first time and getting a sense of the different levels of quality of the art. This first overview highlighted that there were many details and information in the drawings that were not evident in the “Art Messaging” and that a more thorough analysis of the drawings was necessary. As the content analysis approach had worked so well with the analysis of the “Art Messaging”, it was decided to use the same approach for the analysis of the “Rhino Art”. Using the process that was explained in section 3.5.1 the art was analysed and the results of this process is discussed in detail below.

4.1.1: Quality of “Rhino Art”

By systematically working through the art the first phase of the analysis and the first journey through the “U” process was to judge the quality of the art and this was done by rating each art work on a scale from 1 – 6. The rating of the art was done by the researcher and will therefore be biased and ideally a second person should have been used to validate this process. The fact that this did not happen was identified as a limitation of the study in section 1.7. The criteria for the grading of the art is shown in section 3.5.1. The outcomes of this process are presented in Table 4.1 below and is represented as percentages broken down by art from urban versus rural areas as well as the overall average quality of the art.

Table 4.1 Breakdown of the Quality of Art showing total region broken into Urban and Rural origins shown as percentages.

| REGION | 1: Poor | 2: Basic | 3: Average | 4: Above Average | 5: Good | 6: Excellent |
|----------------|-----------|-----------|------------|------------------|----------|--------------|
| Rural | 23 | 26 | 31 | 16 | 4 | 0 |
| Urban | 4 | 14 | 42 | 24 | 13 | 3 |
| Average | 17 | 22 | 34 | 19 | 7 | 1 |

The “Rhino Art” team expected marked differences between “Rhino Art” that was produced by pupils living in urban versus rural areas. However, the extent of these difference was far more pronounced than expected. There are a number of reasons for this. One possible reason for the difference in art quality is that the majority of children from a rural background did not have access to adequate art material to draw with. The assumption was made that it is more difficult to produce quality drawings without adequate art material. This is not always the case but it could be a limiting factor from the student’s point of view. As seen in Table 4.2 below, only 30% of youths from a rural background had access to what the researcher deemed to be adequate art materials. In this case adequate art materials

were defined as the artist having more than 3 different coloured crayons to draw with. The “Rhino Art” team distributed crayons at most rural schools but this still resulted in inadequate supplies per pupil.

Table 4.2 Artists who had access to Art Material comparing Rural versus Urban origins

| REGION | Basic Art Material (%) | Good Art Material (%) |
|----------------|------------------------|-----------------------|
| Rural | 70 | 30 |
| Urban | 10 | 90 |
| Average | 51 | 49 |

Figure 4.1 below shows examples of the extreme difference in the quality of the art, from incredibly basic art to well thought out, intelligent and well executed art. The art on the left had side was drawn by a younger child of about 6 years old who did not have access to adequate art material whereas the art on the right is clearly of a higher quality and drawn by a more mature pupil.

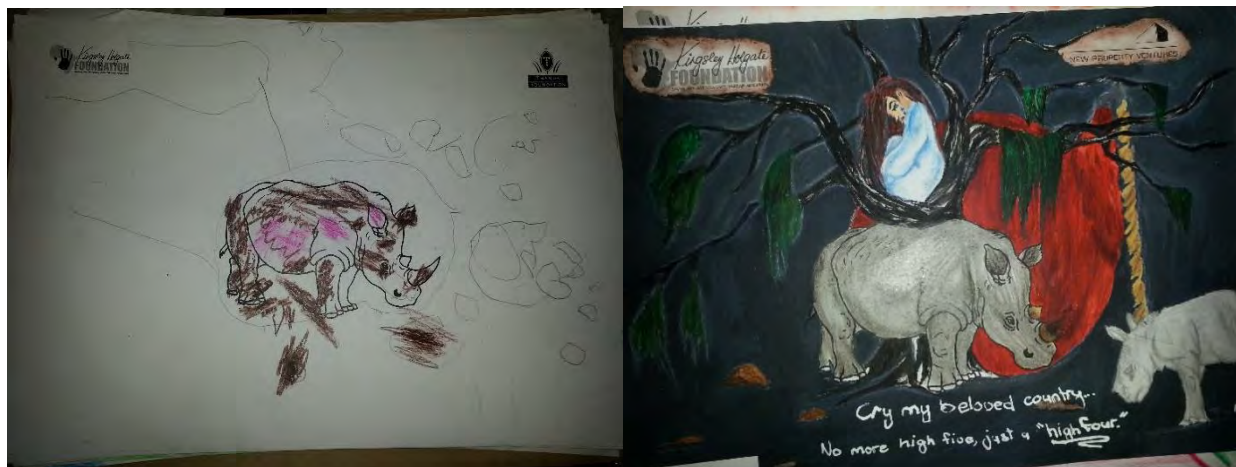


Figure 4.1 Examples of the extreme variances in the quality of the art.

Age is another factor and as would be expected, the art is less developed in children of a younger age. The difference in the quality of the art in the younger children comes down to the involvement of the teachers and the art material. With the younger children (Grade 1 – 3) in urban schools, it can be seen where the teacher had prepared a lesson for the art and created a fun template for the children to use. In one case they used their finger prints to colour in the rhino thereby putting their “mark” on rhino poaching. At the rural schools it is obvious that the children were left largely unassisted and in many cases it was the first time the children had had an opportunity to practice colouring in. This underpins the wicked nature of the poaching crisis as it is often the communities with poor education and poverty that poaching is able to take root.

Table 4.3 below shows a breakdown of the quality of the art based on age and expressed as percentages. This has been done by grade to show that a higher percentage of the art is of a lower standard in the younger pupils and that the quality improves as the pupils get older.

Table 4.3 Breakdown on of "Rhino Art" distribution per grade and quality of "Rhino Art" per grade expressed as percentages.

| GRADE | % of Total Sample | 1: Poor | 2: Basic | 3: Average | 4: Above Average | 5: Good | 6: Excellent |
|-------|-------------------|---------|----------|------------|------------------|---------|--------------|
| R | 1.74 | 70 | 23 | 6 | 1 | 0 | 0 |
| 1 | 6.77 | 20 | 22 | 47 | 10 | 1 | 0 |
| 2 | 9.76 | 24 | 16 | 44 | 15 | 2 | 0 |
| 3 | 9.99 | 24 | 18 | 34 | 20 | 4 | 0 |
| 4 | 10.61 | 15 | 20 | 33 | 22 | 9 | 0 |
| 5 | 8.56 | 13 | 20 | 32 | 26 | 7 | 1 |
| 6 | 15.96 | 15 | 25 | 35 | 18 | 7 | 0 |
| 7 | 18.64 | 12 | 25 | 39 | 18 | 6 | 0 |
| 8 | 11.32 | 14 | 21 | 27 | 21 | 17 | 0 |
| 9 | 0.08 | 7 | 16 | 31 | 18 | 11 | 17 |
| 10 | 0,17 | 8 | 18 | 29 | 31 | 10 | 4 |
| 11 | 2,81 | 12 | 29 | 29 | 23 | 6 | 1 |
| 12 | 2,85 | 22 | 31 | 19 | 16 | 11 | 1 |

The first column in Table 4.3 represents the total distribution of the art by grade and from this it can be seen that less than 7% of the art originated from pupils in grade nine and above. The bulk of the art comes from pupils in intermediate and senior phases representing pupils from grades 4 – 8. The percentages in the remaining columns are a breakdown of the quality of the art for each grade. From this it can be seen that there is a general trend towards the quality of art improving with the age of the pupils. It is concerning to note that in grade 12 in particular, 22% of the art was deemed to be basic. Once again this points to potential flaws in the education system which adds to the overall wicked problem of rhinoceros poaching.

4.1.2 Elements found in the Art

An aspect of the content analysis of the art was identifying when certain objects were drawn on the art. This process involved using an iterative approach based on grounded theory, within the framework of Theory U. In total 28 elements were identified as relevant to rhinoceros conservation and poaching. Of these 16 showed key points of interest and are highlighted in Table 4.4 below. These themes were grouped into two sections, the elements highlighted in pink are directly related to the reality of rhinoceros poaching whereas the elements highlighted in blue are more symbolic in nature.

Table 4.4 Key Elements that emerged from a content analysis of the "Rhino Art" shown as percentages of the total sample.

| REGION | Poacher | Police | Tourist | Weapon | Helicopter | Blood | Detached Horn | Flag | Danger Signs | Fence | Hand | Rainbow | Tears | Popular Culture | Other Animals | 2nd Rhino |
|----------------|-----------|----------|----------|-----------|------------|----------|---------------|----------|--------------|----------|----------|----------|----------|-----------------|---------------|-----------|
| Rural | 17 | 2 | 2 | 17 | 4 | 6 | 3 | 1 | 2 | 4 | 1 | 2 | 0 | 0 | 15 | 11 |
| Urban | 4 | 0 | 0 | 6 | 1 | 5 | 3 | 9 | 6 | 0 | 3 | 3 | 1 | 2 | 5 | 3 |
| Average | 13 | 1 | 2 | 13 | 3 | 6 | 3 | 4 | 3 | 3 | 1 | 3 | 1 | 1 | 12 | 8 |

The percentages shown in the above table show the total number of times the element appeared on an individual piece of art expressed as a percentage of the total sample of "Rhino Art" used in this study. It is important to note that although the percentages are low, they need to be taken within context. The first point to remember is that 39% of the art is either poor or basic and in those instances little or no information could be detected in the drawings. Also, it was a very large sample of over 6000 pieces of art and so just one percent represents more than 60 children and in a world where word of mouth and the power of social media is playing an important role in shaping the thoughts of others, these 60 voices could be significant.

There are a number of issues that emerged through the detailed analysis of the art. It is important to remember that the "Rhino Art" project is essentially an art competition where the best artists at each school win prizes. As a result of this, the more colourful and well-drawn art would receive the most attention in the field where the judging was undertaken. Further to this, these good examples would then be used to show partner organisations and potential sponsors the "success" of the "Rhino Art" project. These examples became well known to the team and the elements that were evident in these examples began to be seen as the norm. These preconceived notions had to be let go when it came to analysing the art by suspending the art and viewing it from a "Seeing" perspective, the art could be viewed anew and through the process of sensing, new themes and ideas emerged.

As these themes emerged, they were added to the checklist and prototyped. Through the process of presenting it became apparent that the less colourful art originating in rural areas showed a far higher level of detail in terms of how rhinoceros poaching occurs. This was evident in how many rural youths drew poachers in their art compared to the urban youth (17% versus 4%) This suggests that the rural youth have been far more exposed to the idea of poachers. The poachers are real people who may be known to the community. The rural pupils also drew weapons used to kill and de-horn a rhino. The rifles are often drawn in detail suggesting that the youths have actually seen these guns in real life. They also drew hacksaws and chainsaws that are needed to cut the horn off the dead or injured rhino. This was far less prevalent in urban youth who are more removed from the day to day reality of poaching.

The high incidence of helicopters in rural drawing is also interesting. In one instance the “Rhino Art” team noticed a high prevalence of helicopters in the drawing from a particular school. What was interesting is that there were no helicopter anti- poaching patrols taking place in that area at the time. The high prevalence of helicopters in the drawings was brought to the attention of the anti- poaching teams who could then investigate further as it was possible that poachers were using helicopters to check the area for opportunities to poach. Another observation regarding the prevalence of helicopters is that on a positive note, it suggests that the youths are aware of the anti- poaching patrols that do take place by using helicopters to do aerial surveillance. This could act as a deterrent to would be poachers. This is one of the examples where the analysis of the “Rhino Art” has led to a deepening of understating of the perceptions that youth have towards rhinoceros poaching and which has translated into action in the field.

4.1.3 “Rhino Art” Rural versus Urban

The youth that live in rural areas on the borders of game reserves are usually the most at risk of becoming poachers and therefore need the most exposure to education that might prevent them from making the choice to poach. The students in these areas tend to have less access to main stream media and therefore are less exposed to views on rhinoceros poaching from a global stand point. This is why the focus of the “Rhino Art” project has been aimed at schools in rural areas within close proximity to game reserves. Two volunteers on the “Rhino Art” project who are now employed as Game Rangers spoke of how they used to hunt for bush meat illegally when they were teenagers. According to them, this is common practice in communities bordering game reserves and often leads to poaching on a larger scale. This can be backed up by research done by Fenio (2014) who found that a combination of peer pressure and boredom within unemployed youths living in these communities, who have few economic alternatives, could lead to them becoming rhinoceros poachers (Fenio, 2014). The fact that so few youths living on the boarder of game reserves have seen rhinoceros in the wild is an area of concern. This makes it very difficult to form an emotional attachment to wildlife and to understand the importance of conservation.

Youths growing up in urban communities have a far more removed view on rhinoceros poaching as they are not exposed to it on a daily basis except for what they see in the media and social media platforms. They tend to anthropomorphise rhinoceros and use popular culture to express their feeling. Far more children from urban back grounds have seen rhinoceros in the wild and they tend to have an understanding of the importance of game reserves but rhinoceros poaching does not affect their life directly.

As explained in section 4.1.2, through the process of presencing it became apparent that there was a great deal of detail, showing how rhinoceros poaching occurs, drawn in the art originating from rural areas. There are drawings of poachers cutting through fences, crawling towards rhinoceros and carrying tools to cut the horns off the rhinoceros. These drawings show interaction between police and poachers being arrested. Where they have drawn a rhinoceros with its horn hacked off, the pictures are graphic, showing the concave wound that is associated with brutal poaching. Figure 4.2 below shows two

examples of art showing intricate detail of a poaching scenes by pupils in rural areas close to game reserves.



Figure 4.2 Examples of art showing scenes of poaching in graphic detail.

It can be seen that the art was very detailed and shows a realistic view of what is happening on the ground. The artists depict the scene of poachers standing over the bloody carcass of a rhinoceros and the police arresting the poachers. In both pictures the accuracy of the depiction of weapons that have been used, both the rifles and the pangas are striking. This suggests that the children in these areas have been exposed visually to seeing these weapons in their daily lives.

The art from urban backgrounds tends to show what may be termed as “popular culture”. There are no strong references to the reality of rhinoceros poaching but more an understanding of what is trending in the media and the use of popular themes. Clever use of super heroes and references to television shows and main steam marketing as can be seen by the use of the Nike “Swish”, “Superman” and the “Witness Protection Program” in the Figure 4.3 below. Although the art is of a superior quality it suggests that the children growing up in urban areas have not been exposed to the reality of poaching in terms of the brutality of the act of killing a rhinoceros and the effect this could potentially have on people living in communities where poachers live.



Figure 4.3 Examples of art making use of popular culture and media influences.

When viewing the urban art though the lense of Theory U, there is a sense that the issue of rhinoceros poaching is romanticised or made to feel less brutal than the reality by youths from urban backgrounds.

There is a high prevalence of hearts and flowers drawn in the art and cases where rhinoceros are drawn with angle wings and halos. This is in stark contrast to the images shown in Figure 4.2. On more than one occasion, the headmasters from urban schools instructed the “Rhino Art” Team not to display any graphic video content in terms of a poached or mutilated rhinoceros. While it is understandable that younger pupils should not be upset, it highlights the extent to which urban scholars are protected from the harsh realities of wildlife crime.

4.2 “Art Messaging” Analysis

Where Section 4.1 focused on themes that emerged in the actual drawing, section 4.2 will look at the themes that emerged from the messages that were written on the art and were called “Art Messaging”. One of the difficulties that the “Rhino Art” team encounter when working in the field is that there is not enough time to give the messages written on the art the true attention they deserves. There is pressure on the team to judge the art and do the prize giving ceremony as quickly as possible so that they can get to the next school. Budget constraints demand that a minimum of three schools are visited each day to keep the project economically viable. It is usually the flashiest art that catches the team’s attention and often, well thought out messages are overlooked. Since this study began the importance of the information in the “Art Messaging” became apparent and the “Rhino Art” team now try give out two prizes at each school, one for the best art and another one for the best message. This is another example of how reflection of the art and messaging working down the left hand side of the “U” has resulted in prototyping and action in the field representing the right hand side of the “U” seen in Figure 2.1.

As explained in section 3.5.2, highly emotional messages tend to stay top of mind and one of the reasons for transcribing each and every messages was to eliminate bias caused by this. Much like in the “Rhino Art” Analysis, the differences in the quality of the messages is vast. In some cases, the hand writing was so poor it was illegible and could not be transcribed. In one case, the entire message was written backwards and it is a sad reflection of education in South Africa that a 16-year-old could be dyslexic and not have the support to help him or her. In some instances, it was clear that the youth were copying out of a book word for word but the message stopped mid- sentence. This suggests that in the original text, the sentence continued on the following page. The fact that the copied text stopped mid - sentence suggests that the pupil had not fully understood what they were writing and therefore did not realise that the sentence had not ended. These examples point to the enormity and complexity of the overall wicked problem of rhino poaching which can be viewed as a symptom of a much larger problem of poverty and poor education.

Once all the messages had been transcribed, an iterative process was used to do a content analysis based on grounded theory. In total 52 themes emerged from the messaging. Then, through a series of cycles of reflection and action, which were explained in section 3.5.2, the themes were grouped into 10 sub categories. This process was shaped by the framework of Theory U and each time the messages where viewed represents a deepening of the U as seen in Figure 1.2. The process of first transcribing the messages and then undergoing the content analysis of the “Art Messaging” resulted in a deeper understanding of the perceptions that had shaped these messages. This informed knowledge led to the

emergence of patterns that through a deep connection with the messages or presencing, resulted in the 10 sub- categories been crystallised. These sub categories were further grouped into 3 main categories, namely; Conservation, Economic and Cultural which were modelled on Bruyere et al (2011). The final breakdown of this grouping can be seen in Table 4.5 below.

Table 4.5 Breakdown of themes by Category and Sub Category.

| Conservation | | | | Economic | | | Cultural | | |
|--------------|--------------------------|--------------------|---------------|-------------------|--------------------|----------------------|--------------------|--------------------|------------------|
| Rhino Info | Pleas | Punishment | Protection | Benefits | Horn | Medicine | Pride | Anthromorphise | MSCL |
| Rhino Info | Save Rhinos | Arresting Poachers | Game reserves | Economy | Value of Horn | Traditional Healer | Big 5 | Orphans | Waste |
| | Stop Poaching | Killing Poachers | Corruption | Tourism | Horn for Jewellery | Medicine | Future Generations | Suffering of Rhino | Meat |
| | Don't Kill | Punishment | Government | Job Opportunities | Gold and Horn | Not Medicine | Extinctions | Nature | Dangerous Animal |
| | Stop Selling Rhino Horns | | Education | | Ivory | Hair and fingernails | Heritage | Love | Ten rand |
| | Hands Off | | Crime Line | | Useful | | Respect | Important | Rain |
| | | | Community | | Demand | | Mandela | Aesthetics | Fire |
| | | | Ecosystems | | | | National Pride | Humanise | |
| | | | Global Issues | | | | Religion | Popular Culture | |

For the purpose of this study, the data has been expressed in two ways. Firstly, as the actual number of mentions and this refers to each time the theme appeared and it was assigned the code “1”. These numbers are expressed as “actual mentions”. Secondly the themes are expressed as percentages. This represents the number of respondents who mentioned a theme as a percentage of the total sample. The messages usually contained more than one theme and therefore these percentages will not add up to 100. These distinctions are made clear in the analysis.

The following section has been broken down into the three categories; Conservation, Economic and Cultural. In these three sections, key data and insights that emerged from each sub-category are identified. The implications of these insights are discussed in more depth in Chapter 5.

4.2.1 “Art Messaging” Category: Conservation

Rhinoceros Info: Messages that contained general information about rhinoceros were scored a value of “1” under this theme. This includes information such as size, type, eating habits and preferred habitat of rhinoceros. This information does not offer any insights into the youth’s perceptions towards rhinoceros poaching but was included as these types of messages represented a large percentage of the total messages. The instruction given to the pupils was to write “what rhinoceros poaching means to you”. This was either not properly explained or translated incorrectly as many of the scholars, particularly in rural schools, wrote about rhinoceros in general and not their feelings on the subject. A positive side effect of this misunderstanding is that these youths had to research rhinoceros in order to write about them and therefore the education element of the “Rhino Art” project was reinforced.

In this regard there were a number of identical messages from different schools around the country giving information about rhinoceros. One of the messages that was written by multiple pupils was:

“Rhino is a short word for rhinoceros. African rhinos live in grass areas in South Africa. Two Hundred years ago there were over 2 million rhinos now there are fewer than 19000. Some rhinos are in danger of disappearing for ever.”

This messages appeared in messages from a number of schools throughout South Africa and implies that the same source was used to get this information. Unfortunately, the information source has not been identified and it is raises concerns as to where and what information has been made available to school going youths. The “Rhino Art” team try and partner with staff from nearby game reserves when running the project so as to foster good relationships between the Park and the communities. The local staff admit that they do not have adequate educational material available to use when they try to run conservation education programs in the community. One of the key learnings that emerged from the analysis of the “Art Messaging” is that although there are a number of organisations who provide this type of educational material, it appears that distribution and quality of the education material could be improved upon. This is an example of how conservation leaders could transform their perceptions and actions towards rhinoceros poaching based on the outcomes that emerge from this analysis.

Pleas: This sub category included all calls to stop the killing of rhinoceros. This accounts for the largest percentage (36%) of actual mentions but it was the subtleties in the way these pleas were worded that vary from urban to rural areas. When comparing urban and rural samples the differences can be seen in Table 4.6 below.

Table 4.6 Difference in wording when calling to stop rhinoceros poaching: Urban versus Rural

| | Urban | Rural |
|---------------------|-------|-------|
| “Save the Rhinos” | 41% | 24% |
| “Don’t Kill Rhinos” | 23% | 48% |

This suggests a subtle difference in the way the youth perceive rhinoceros poaching based on their geographic location. In urban areas, the emphasis is very heavily of saving them whereas the rural youth focus on not killing rhinoceros. This subtle difference mirrors the outcomes from the analysis of the “Rhino Art” that the urban youth are more removed from the poaching crisis and can afford to be more altruistic by using the word “Save” with respect to rhinoceros. When poaching is closer to home, the concept of a rhinoceros actually being killed is a reality and therefore the plea is to “Stop Killing”.

It had not occurred to the “Rhino Art” team that this difference in wording could be significant. However, by opening up to new ideas, and listening to a deeper sense of knowing, it became apparent that the way in which we engage with youth and the language we use when communicating should mirror the terminology that the youth are most comfortable with. In this case, using the term “save” or “don’t kill” should be considered based on the geographic background of the audience.

Punishment: All mentions of poachers being punished for their actions were placed in this sub-category. These actions ranged from calls for the death penalty to a general need for more severe sentencing for people found guilty of poaching. It is concerning that some youth appear to place very little value on human life and call for poachers to be killed. The way in which many of the messages are worded suggests a connection to popular media messaging such as bumper stickers which, as an example, state “Save the Rhinos; Kill a Poacher”. It is understood that these messages are intended to create awareness and show support for rhinoceros conservations but it is a concern that children are exposed to these messages and that they play a role in the generation of perceptions that youth have towards rhinoceros poaching. Two percent of the total sample made some reference to poachers been killed as a punishment for poaching.

Protection: This refers to all mentions of how to conserve rhinoceros from stopping corruption to reporting poaching to the crime line and the role rhinoceros play in the global ecosystem. It is concerning how low this ranked in terms of importance. Only 4.8% of the total mentions fall into the Protection sub category and of this only a percent is from urban backgrounds. Viewing this sub-category through the lense of Theory U strongly suggests that this is an area for improvement when communicating with youth about rhinoceros conservation. As is seen from the analysis of the summit surveys in section 4.3, many of the themes that make up the Protection sub- category feature in the answers to the survey questions. The prevalence also increased in the post summit survey suggesting that these protection elements can be easily taught and should therefore feature more in the “Rhino Art” education program. On a positive note, 5% of rural respondents mentioned the anti-poaching crime line and this suggests that this campaign has been some- what successful in communication to communities that there is a number they can phone to report Wildlife crime.

4.2.2 “Art Messaging” Category: Economic

Benefits: This was any mention of something that could provide monetary benefits to the local community either through job creation, tourists bringing spending money into the community or a mention that the economy will be improved by rhinoceros preservation. What stood out in this sub category was the fact that youth from Namibia and Swaziland, 21% and 30% respectively had far higher mentions of these benefits than youth from South Africa which was only 10%. It is noted that the

sample size in Namibia and Swaziland is very small but the difference was significant and shows the need for further study in this area. It strongly suggests that the benefits of conserving rhinoceros in terms of economic benefits to local communities is not been taught as a priority in South Africa. In a similar vein and what will be elaborated on in section 4.2.4, was that less than a percent of the urban samples mentioned any economic benefits in terms of poaching and conservation.

Horn: It is generally accepted that the reason rhinoceros are poached is because of the value of the horn. Every time a monetary value was assigned or hinted at in terms of the horn in the art messaging, it was placed in this sub category. Ultimately rhinoceros poaching is driven by the demand for horn for a number of reasons, including using it to make jewellery and the belief that it has medicinal properties. In some instances, the youth have mistaken rhinoceros horn for ivory and gold. The confusion about the horn containing gold could have been a mistranslation of when the value of the horn has been compared to the value of gold. This shows the importance of ensuring that the correct message is delivered when educating the youth on conservation. A simple mistranslation could potentially have far reaching consequences, this particular mistake was common at one particular school in Swaziland and through this study this information could be relayed to the school to ensure that going forward there was not the same confusion.

There are also mentions of rhinoceros horn being “Useful” particularly in the Eastern Cape and Namibia. Further study is needed to understand what the term “Useful” actually means in the context of these statements. In some cases, it appears to refer to the fact that rhinoceros need to be preserved so that the true value can be used by the communities at a later stage rather than poachers benefiting from rhinoceros horn now. In these cases, they do not appear to mind the killing of rhinoceros for its horn but rather that don’t want poachers benefiting from this kill instead of the community. The use of the word useful is expanded on in section 4.2.4.

Medicine: This ties into the rhinoceros horn been sold for money. The major use of rhinoceros horn is for its alleged medicinal properties. Again, this is what drives the price of rhinoceros horn and why any mention of rhinoceros horn either as medicine or not as medicine has been placed under the Economic category. There appears to be confusion surrounding the alleged medicinal properties of rhinoceros horn and this suggests that this is not being clearly communicated to the youth. In this study, there are 117 actual mentions that Rhinoceros Horn is indeed medicine compared to only 92 mentions that it not medicine. This is shown in Table 4.7 below.

Table 4.7 Percentage of youths who think rhinoceros horn is medicine or not medicine.

| | Rhinoceros Horn is Medicine | Rhinoceros Horn is not medicine |
|----------------|-----------------------------|---------------------------------|
| Rural | 3 | 1 |
| Urban | 1 | 3 |
| Average | 2 | 2 |

It is both surprising and alarming that there was not a bigger difference between these two views given the emphasis that the “Rhino Art” team place on the fact that rhinoceros horn is not a medicine when doing the education segment of the “Rhino Art” program. This outcome strongly suggests that the team has not been effective in the way they deliver this message and the approach needs to be amended accordingly. It is hugely important that this message is correctly communicated especially in demand reduction campaigns in Asia.

4.2.3 “Art Messaging” Category: Cultural

Pride: At 16%, this accounts for the third most mentions and includes all elements of ownership or pride towards rhinoceros. It includes the inclusion of rhinoceros as part of the Big 5 and the importance of saving rhinoceros for future generations. Saving rhinoceros so that future generations can see them was one of the most mentioned themes with 15% of the sample and 19% in rural areas using this as a reason to save rhinoceros. This is supported by previous by Picard (2003) where it was found that seventeen percent of residents from a local village identified the need to keep Protected Areas for future generations. A learning that emerged from this analysis was that people respond positively when there is a personal attachment to the subject and the themes that make up the Pride sub-category feed into this attachment. This idea can be prototyped going forward to reinforce the importance of preventing rhinoceros poaching.

Anthropomorphise: This covers all themes and key words that attribute human attributes or emotions to rhinoceros. Building on from the learning that youth respond well to ideas that they feel personally attached to, it follows that this sub- category accounted for 20,68% of the total mentions. One element of this was the use of popular culture to describe the plight of rhinoceros, not surprisingly, this was skewed towards urban youth. A total of 11% mentioned some kind of popular culture in their messaging. This could be broken down as to 23% of urban youth versus only 8% of youth from rural backgrounds. A similar pattern was seen when human attributes were given to rhinoceros where this was evident in 16% of urban youths compared to only 8% of rural youths.

Similarly, to the previous reference to the use of the word “useful” when making reference to rhinoceros horn. The word “Important” featured heavily as a reason to keep rhinoceros alive. Sixteen percent of rural youth used the word “important” in their messages compared to only a percent of urban youth. Again, this is looked at in more detail in 4.2.4.

Miscellaneous: This category was for any theme that did not fit into other categories. The reason for their inclusion was that most of these themes were not expected and the fact that a few pupils mentioned these outlying themes was worthy of mention. Examples of this include the thought that Rhinos are very dangerous animals that prey on humans. There was also an example of a poem being quoted where a pet rhinoceros was left in the rain. Another issue that was mentioned and that was particularly prevalent in Namibia, 8%, was the idea of wastage. In these instances, it was not so much the fact that an animal has been killed that was an issue but rather that it was only killed for its horn and that the rest of the animal was wasted that was the problem.

4.2.4 “Art Messaging”: Key Observations and Trends

The “Art Messaging” was analysed in two ways. The first was to represent it as a percentage by adding each time a theme was mentioned and working it out as a percentage of the total sample. This gives an indication of how many of the respondents had the same thought. The second way was to work out how many times a theme was mentioned as a percentage of the total number of mentions. This view allows one to rank the frequency of mentions. Figure 4.4 below shows a visual representation of the total number of mentions split into the three main categories. Almost half of the mentions had to do with conservation however if two of the sub categories namely, “Rhino Info” and “Please” were discounted, then the Cultural category would have been the most prominent. This follows from the outcome of the analysis that point to elements with a strong personal attachment having the biggest impact on the perceptions that youth have towards rhinoceros poaching. While this is encouraging, an areas that requires more research is to better understand why the economic implications featured so poorly.

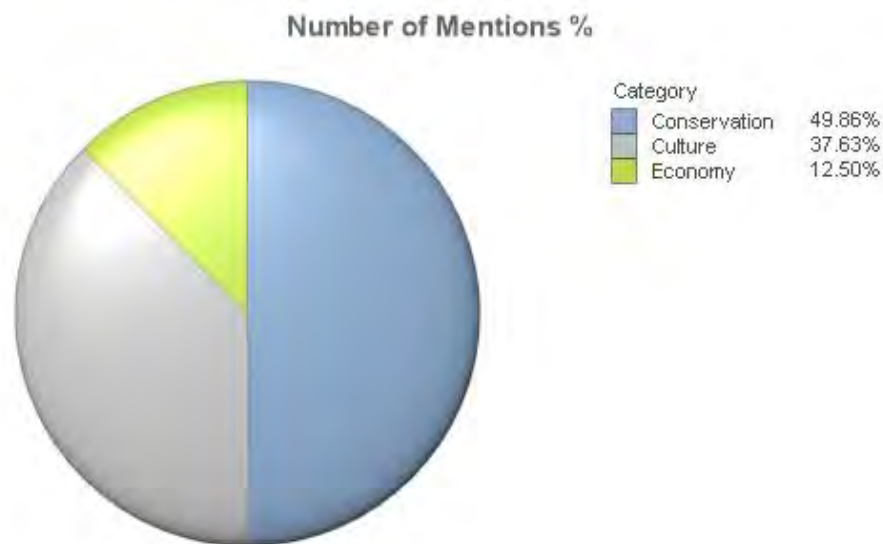


Figure 4.4 Breakdown of Art messaging by Category shown as the percentage of total mention.

It may be argued that conservation needs to pay for itself. It has to be economically viable for it to have a place in today’s world. It therefore stands to reason that the economic values of conservation should be taught to the youth of today. There are a number of top safaris operators who pride themselves on their community involvement and on the economic benefits that the communities derive from the presence of a game lodge nearby. Leaders in the Safari industry claim to strive for mutually beneficial relationships with their rural community partners in ways that deliver a share of the proceeds of responsible ecotourism to all stakeholders. This includes community-centric employment, joint ventures, education and training, social and health benefits, capacity-building and infrastructure development. It is vital that these real and potential benefits are made known to the youth of today so that they can understand the link between tourism, job creation, economy and conservation. The fact that this category features so poorly suggests that this has not been done effectively and that there is huge potential to improve on this message going forward. Another possible reason for the lack of

mentions about economic benefits that are promised by the presence of a game lodge close to a community could be as a result of failure to deliver on these promises. As mentioned in section 2.6.1, Fenio (2014) found that communities living close to Kruger national Park perceived a lack of job opportunities and earning opportunities through conservation and that this actually translated into anger towards the Park. Further research is needed to better understand if the lack on economic mentions is due to lack of knowledge of the potential benefits or if it through lack of delivery on behalf of the Parks.

Table 4.8 below shows the exact amount of mentions for each of the themes that make up the sub-category of Benefits. It is surprising to see exactly how few urban youths made any mention of the direct economic benefits of conservation. This table translates into 8% of rural youths mentioning some kind of economic benefit versus less than a percent of urban youth.

Table 4.8 Actual mentions of “Benefits” themes comparing Urban versus Rural

| Theme | Rural | Urban |
|--------------------------|--------------|--------------|
| Economy | 247 | 2 |
| Tourism | 301 | 4 |
| Job Opportunities | 51 | 1 |

Analysis of the Economic Category showed that Namibian and Swazi respondent’s placed a much higher level of importance on this category than South Africans. Five percent of the overall sample mentioned the importance of conserving rhinoceros as they add value to the economy and 6% mentioned the role they play in tourism. These numbers were significantly higher in Namibia and Swaziland. Twenty-eight percent of Namibian youth made reference to the economy and 29% of Swazi’s referenced tourism. Given the relative success of rhinoceros conservation in these countries it implies that a greater emphasis needs to be placed on these elements when educating the youth of South Africa on rhinoceros conservation.

When holding up the sub-categories to the lense of Theory U, the insights that emerged led to a much deeper understanding of the perceptions that youth populations within Southern Africa have towards rhinoceros poaching. The information from the analysis was looked at with “fresh eyes” and by letting go of previous notions, new learning emerged through the process of presencing. One of the main insights was the importance of creating a personal attachment to the idea of conserving rhinoceros. This can be seen in Figure 4.5 below where Anthropomorphise and Pride have the second and third highest mentions. An action that crystallised from this insight was the need for rural youths in particular to have access to seeing rhinoceros in the wild. As a result of this outcome of the analysis, the “Rhino Art” team has started a program that aims to take rural children into game reserves. Due to logistical constraints this project has met with limited success but plans are in place to improve on this going forward.

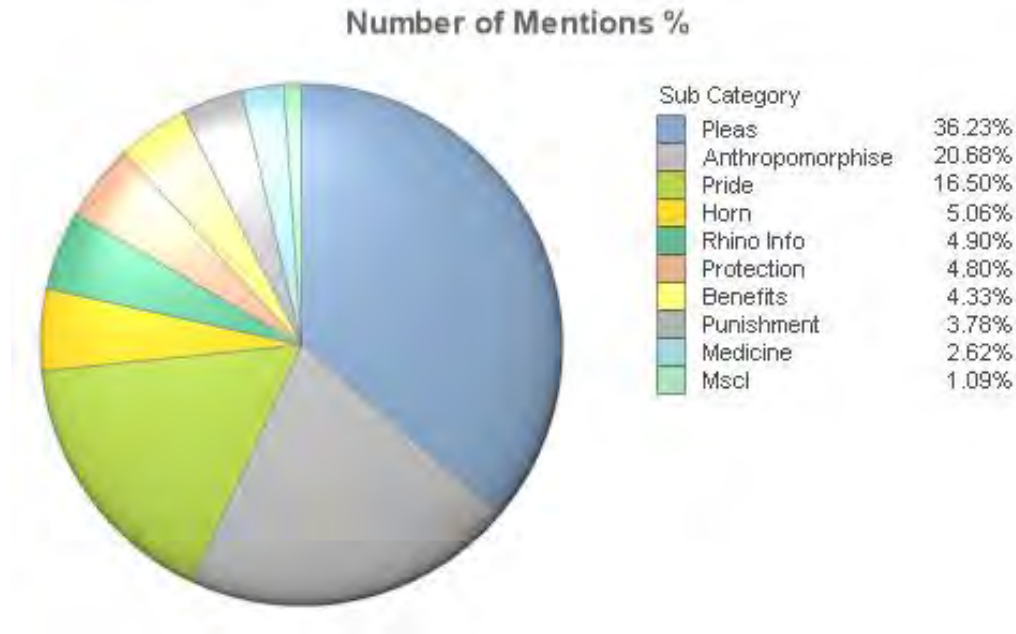


Figure 4.5 Breakdown of Rhinoceros Art Messaging by Sub Category represented a percentage of the total number of mention.

Looking at the messaging in terms of the sub categories as a percentage of actual mentions, one gets a much clearer indication of what is important to the youth in terms of rhinoceros conservation. As expected, the “Pleas” have the largest percentage of mentions as most children used this as a heading or an introduction to their message. Except for the differences in delivery which have already been examined, these pleas offer little insights to the perceptions of youths towards conservation. It is however necessary to have a closer look data that emerged from the second and third highest sub-categories which is explained below. Table 4.9 shows the breakdown of themes for Anthropomorphism as an average and split by rural versus urban responses.

Table 4.9, Anthropomorphism Sub - Category with Second most mentions, broken down by the number of youths who mention each themes shown as a percentage of the total sample

| | Suffering of Rhino | Nature | Love | Important | Aesthetics | Humanise | Popular Culture |
|----------------|--------------------|----------|----------|-----------|------------|-----------|-----------------|
| Rural | 2 | 9 | 8 | 16 | 6 | 8 | 3 |
| Urban | 2 | 1 | 9 | 1 | 4 | 16 | 25 |
| Average | 2 | 6 | 9 | 10 | 5 | 11 | 11 |

The category with the second highest mentions was not expected. Accounting for 20.68% of the total mentions, Anthropomorphism can be linked back to a reference in the literature review:

“Where the aesthetical value of nature is emphasized in western cultures as a reason for nature conservation, the utility value among local communities prevails. Utility was emphasised and it was shown that only if an animal or tree has utility value will it be of value to conserve it. Only then will it be described as beautiful and what is beautiful does not necessarily coincide with the western perception of aesthetics. According to the Masebe community, something is beautiful because it can be utilized (Boonzaaier, 2009, p. 11).”

The sub category of Anthropomorphism encompasses much of what this statement refers to. It covers all of the “softer” issues associated with conservation such as love, aesthetics, empathising with the suffering of the animal and assigning human qualities to rhinoceros. The word “Important” was also grouped in this category and this links to the utility value that is placed on animals so as to preserve them. As seen in Table 4.9, 16% of rural youth used the word “Important” in their messaging. This is compared to only a percent of urban youth using this word in reference to rhinoceros conservation. The above statement by Boonzaaier (2009) could also explain the meaning of the word “useful” that was questioned in section 4.2.1 above when used in reference to rhinoceros horn. As much as utility may be of value in rural communities, aesthetics and empathy rate highly in terms of urban communities as seen by the 16% of urban youth that made reference to assigning human traits or values to rhinoceros.

The category with the third most mentions was the Pride Category and Table 4.10 below shows the breakdown of the themes within this category broken down in messages from a rural versus urban origin and the overall averages of mentions shown as a percentage of the total sample.

Table 4.10, Pride, Sub - Category with the third most mentions, broken down by the number of youths who mention each themes shown as a percentage of the total sample

| | Rhino as part of Big 5 | Future Generations | Extinction | Heritage | Respect | National Pride | Religion |
|----------------|-------------------------------|---------------------------|-------------------|-----------------|----------------|-----------------------|-----------------|
| Rural | 10 | 19 | 9 | 3 | 2 | 7 | 4 |
| Urban | 6 | 9 | 9 | 0 | 1 | 5 | 2 |
| Average | 8 | 15 | 9 | 2 | 1 | 7 | 3 |

Pride was the category with the third most mentions. This could indicate a strong sense of ownership towards rhinoceros and wildlife. The concept of keeping rhinoceros alive so the future generations can see them, features prominently, highlighting the issue of sustainability. In fact, after “pleas”, “future generations” at 15% (19% in rural areas) had the highest percentage of youths mention it as a reason to preserve rhinoceros. Once again this echoes a theme that emerged from a study by Picard (2003) that was mentioned in section 2.7.1. It was found that 17% of residents from a local village identified the need to keep protected areas for future generations (Picard, 2003). A concern about the prevalence of this theme being mentioned is that it is an easy “pay off line” that can be used in lip service conservation

“save the Rhino so your children can see them”. There is a concern that this line has simply been repeated back in the messaging without really meaning or understanding it. Considering how few of these rural youth have seen rhinoceros in the wild, one must question why it would be important for their children to see a rhinoceros when it has had no bearing in their lives to date?

Two other popular themes that emerged were the association of rhinoceros as part of the “Big 5” and the fear of rhinoceros going extinct. Again both these themes are spoken of at large especially across all media platforms. This could be viewed as a positive that at least the message is getting across and been retained at a high level in youth populations.

4.3. “Art Messaging from outside South Africa.

It has already been mentioned in 1.7 that a limitation of this study is that most of the “Rhino Art” originated from South Africa and KwaZulu-Natal in particular. It was also stated that despite the relatively small samples that Namibia and Swaziland represent, when viewed through the lense of Theory U, the information from these schools offered significant insights into what perceptions the youth from these countries might hold and they were therefore included in the study. Even though it is a small sample the differences are interesting and suggest that a more in depth study into these differences is needed in the future. Given that the poaching rates of rhinoceros are significantly lower in both Namibia and Swaziland compared to South Africa, it suggests that best practices from these countries could be adopted and used in South Africa when educating youth on rhinoceros conservation in the future.

4.3.1 “Art Messaging”: Namibia

Table 4.11 below shows the keys themes that emerged from a study of the “Rhino Art” collected in Namibia. From this table, it can be seen that there were very high instances of positive themes occurring in the Namibian art messaging. The total size of the Namibian sample was only 80 pieces of art which only represents 1,2% of the total sample. However, the information from this small sample was worthy of further analysis.

Table 4.11 Percentage of respondents who mentioned key themes from the Namibia sample of 80 Youths

| Percentage of mentions in Namibian Sample | Economy | Tourism | Useful | Medicine | Not Medicine | Save Rhino | Don't Kill | Education | Ecosystems | Future Generations | Extinction | Important | Humanise | Popular Culture | Wastage |
|---|---------|---------|--------|----------|--------------|------------|------------|-----------|------------|--------------------|------------|-----------|----------|-----------------|---------|
| | 28 | 21 | 15 | 3 | 9 | 45 | 50 | 10 | 16 | 59 | 19 | 16 | 31 | 9 | 8 |

Only one school participated in the Art project in Namibia and this was the Rukonga Vision School, a pilot school introduced by the Namibian Government in 2013 to improve the quality of delivery of education in the country. Due to the nature of this school and the advanced technology that the students have access to, the sample is obviously skewed but it is interesting to see the high level of understanding of this wicked problem of rhinoceros poaching. Due to time constraints, the students were only given one hour to complete their drawing and write their messages. The very high quality of the art and messaging that emerged from this school, it would have been interesting to see what could have emerged had they had more time.

As already mentioned the links to economy and tourism are encouraging. Ten percent of the students recognised the role government needs to play in conservation compared to just a percent of the overall sample. Again, 16% of the students mention the importance of ecosystems and how conservation is linked to the preservation of the environment. This was only evident in a percent of the overall sample. 59% made reference to the importance of preserving rhinoceros for future generations.

Namibia and Swaziland were the only two countries to mention wastage as an issue. Where 8% of the Namibian youth bought this up, only 2% did in Swaziland. The Namibian youth appeared to think that if an animal is killed then every part of the animal should be utilised and the fact that when a rhinoceros is killed only the horn is taken is a terrible waste. They suggest that the meat of the rhinoceros should be eaten and the skin used to make leather. It is surprising that this was not viewed as an issue in South Africa and is perhaps an idea that could be introduced in future educational material.

4.3.2 Art Messaging”: Swaziland

Art messages from Swaziland strongly reflect the important role rhinoceros play in tourism with 29% of the respondents making reference to this. Fourteen percent made reference to the role national parks play and this is encouraging in terms of conservation. A concern is that the students are also acutely aware of the value of rhinoceros horn with 25% of the students making reference to this and 8% directly referring to rhinoceros horn being used for jewellery where only a percent of the overall sample referred to this. These details are shown in Table 4.12 below.

Table 4.12 Percentage of respondents who mentioned key themes from the Swazi sample of 276 Youths

| Percentage of mentions in Swaziland Sample | Economy | Tourism | Value of Horn | Horn for jewellery | Gold and Horn | Useful | Medicine | Not Medicine | Game Reserves | Education | Crime Line | Part of Big 5 | Future Generations | Extinction | National Pride | Religion | Important | Dangerous Animal |
|--|---------|---------|---------------|--------------------|---------------|--------|----------|--------------|---------------|-----------|------------|---------------|--------------------|------------|----------------|----------|-----------|------------------|
| | 8 | 29 | 25 | 8 | 1 | 5 | 5 | 0 | 14 | 9 | 4 | 8 | 25 | 14 | 3 | 8 | 25 | 3 |

Currently Swaziland has a strong hold against Rhino poaching having lost only 3 rhinos in the past 20 years due to its stringent anti-poaching laws (Unknown, 2011). Reilly et al (2004) claim that legislative changes made in Swaziland resulted in their anti- poaching laws being considered as some of the toughest in existence and is one of the reasons for the relatively low poaching incidents in Swaziland. Other reasons cited for this success are dedicated staff and the unfailing moral support of the head of state as well as cooperative regional law enforcement (Reilly, et al., 2004).

Much like Namibia, although the overall sample of art from Swaziland was small, there were very interesting themes that emerged that were not seen in other regions. The children have a very clear understanding of how tourism leads to the overall growth of the Swazi economy. Twenty-nine percent of the children comment that tourists who come to Swaziland to see rhinoceros in the wild. One youth even drew a map of the road to Hlane National Park and highlighted all the places tourists would spend money buying arts and crafts along the way and thus add to the economic growth of Swaziland. Eight percent specifically mention economic advantages of protecting rhinoceros.

A concern is that 5% of Swazi respondents say that rhinoceros horn is used for medicine but not one suggested that the medicine doesn't work. In fact, rhinoceros horn being used as medicine was seen a good reason to keep the rhinoceros alive. Five percent wrote that "Traditional Healers use the Rhinoceros Horn". This is something that has not been seen in other regions where the messages usually indicate that the Rhino Horn is only used for medicine in China or Vietnam. There is a need to question if this is specific to Swaziland and if indeed traditional healers use Rhinoceros Horn in this area?

There were also many references to using the Rhino Horn to make jewellery, rings in particular. Eight percent suggest that rhinoceros horn is good as it is used to make "beautiful things such as rings and jewellery". There were also 8 specific references stating the following: "The water that comes out of the horn they use to wash gold." It needs to be established if this is a mistranslation or misunderstanding of the fact that Rhino horn is more valuable than gold?

Swaziland is an example of tremendous political will on the part of the King of Swaziland. It is known that if you are caught poaching, there will be serious consequences. The overall impression gained from the art and messaging from Swaziland was that the learners understood the need to conserve and protect rhinoceros. However, this was because rhinoceros offer monetary value in terms of the value and use of the horn. It was strongly implied that the rhinoceros should be kept alive so as to benefit from the value of the horn at a later stage as a community and not as an individual poacher. Although the issue of trade does not come up this could be the reason behind these messages and further studies are needed to establish what message is being portrayed to the youth in Swaziland.

4.4 "Youth Rhino Summit" Survey Analysis

4.4.1 General

As seen from the themes that emerged from the "Rhino Art" and "Art Messaging" there is a vast amount of information regarding the perceptions that youths in Southern Africa have towards rhinoceros poaching. At the same time a number of questions have been raised that cannot be explained by looking at the art and messaging alone. This was identified as a limitation of the project and is one of

the reasons why surveys were added to the data to be analysed. The initial summit took place in September 2014 and at this time, the analysis of the “Rhino Art” and “Art Messaging” was still in its infancy. Even in these early stages there was a sense that more in depth information regarding the perceptions that youth had towards rhinoceros poaching was needed. By viewing the potential of the “Youth Rhino Summit” through the lense of Theory U, it was identified that the delegates attending the summit might be able to offer deeper insights into these perceptions. Through the process of presencing, the idea of asking the delegates to take part in a survey materialised. Working together with the academic advisor for the Youth Rhino Summits, the survey was designed and prototyped.

Although the answers from the initial survey provided a great deal of information, there were shortcomings in the survey design and by working through the U process again, these shortcomings were identified and changed for the second summit. The main issue that was identified and that was mentioned in section 3.4.3, was that there should have been a follow up survey at the end of the first summit so that any changes and growth in the youth perceptions could be monitored and recorded. As a result of this learning, a total of three surveys were conducted. One from the start of the “Youth Rhino Summit” held in September 2014 and then two from the second “Youth Rhino Summit” in July 2015; one conducted at the start of the summit and the other at the end. The results from all three surveys will be discussed in the sections below.

There was a risk that the summit organisers could deliberately design the academic program to serve their own agenda and that this could potentially skew the perceptions that the youth have regarding specific issues surrounding rhinoceros poaching. In the case of both summits the aim was to put together a varied educational program that addressed many issues of conservation and rhinoceros poaching giving the delegates the necessary information to make informed decisions for themselves. Despite all best efforts, it should be recognised as a limitation that there may be bias.

4.4.2 Importance of seeing rhinoceros in the wild.

One of the concerns that the “Rhino Art” team had while running the education program of the “Rhino Art” project was how many pupils had actually seen rhinoceros in the wild. The “Rhino Art” team felt strongly that very few of the youth who lived on the borders of Game Reserves had seen a live rhinoceros but there was no formal documentation of this. The importance of this was recognised and as a direct result of this insight, all “Rhino Art” templates from 2014 onwards now include the question “Have you seen rhino in the wild?” written on them. Following on from this concern, the first question delegates were required to answer, was whether they had seen a rhinoceros in the wild or not and the answers to this question can be seen Table 4.13 below.

Table 4.13 Percentage of Summit Delegates who have seen rhinoceros in the wild.

| | YES | NO |
|------------------------|------------|------------|
| 2014 PRE SUMMIT | 87% | 13% |
| 2015 PRE SUMMIT | 72% | 28% |

It can be seen that the majority of delegates had seen rhinoceros in the wild. Unfortunately, the information from the first summit does not give an accurate account of the situation. There was a flaw in the way the question was worded as it did not specify if this question included seeing a rhinoceros when arriving at the summit venue. The first Summit was hosted in Hluhluwe-iMfolozi Park and many of the delegates encountered rhinoceros on the drive to the summit venue. By the end of the first summit all delegates had seen rhinoceros in their natural habitat and this was deemed to be one of the many successes of the summit. One criticism of the second summit was that it did not take place on a game reserve and so the delegates did not have a chance to see rhinoceros in their natural habitat. The importance of youths experiencing seeing a rhinoceros for themselves will be discussed further in section 5.1.1

4.4.3 Perceptions regarding the possible extinction of rhinoceros

One of the questions that was asked in the summit surveys was whether the delegate believed rhinoceros would become in their life time or not. This question was included to address an important aspect of perceptions that youth might have towards rhinoceros poaching. If a youth believes that rhinoceros will become extinct in their lifetime, it follows that they could have a negative outlook on the future preservation of rhinoceros. The answer to this question has been summarised in Table 4.14 below.

Table 4.14 Percentage of Summit Delegates who believe rhinoceros will become extinct in their lifetime.

| | YES | NO | NEITHER |
|-------------------------|------------|------------|-----------|
| 2014 PRE SUMMIT | 22% | 76% | 2% |
| 2015 PRE SUMMIT | 50% | 46% | 4% |
| 2015 POST SUMMIT | 22% | 74% | 4% |

The most obvious stand out point from Table 4.14 above, is the dramatic jump in delegates who thought rhinos would go extinct from 22% in 2014 to half in 2015. This suggests that the messages regarding the preservation of rhinoceros being communicated to the public via various media platforms is negative. The majority of media stories regarding rhinoceros poaching focus on the negative aspects of this wicked problem especially in terms of how many rhinoceros have been poached and how few poachers have been arrested.

It is however interesting to note that after the second summit the number of youths who thought rhinoceros would go extinct in their lifetime dropped by more than half. This suggests that once the delegates had been exposed to relevant information regarding rhinoceros conservation and they could consider the question with new insights they had a more positive view on the possibility of saving rhinoceros from extinction.

4.4.4 Perceived areas of importance with regards to rhinoceros conservation

In order to have a deeper understanding of the perceptions that youth might have towards rhinoceros poaching, two questions were asked to identify what might be the biggest issues surrounding rhinoceros poaching. The first question was posed as a multiple choice question but the answer options were

modified after the first summit. For the second summit and the options of Corruption, Poverty and Biodiversity were added to the list of possible answers. This was done because of the prevalence of these responses, in the 2014 survey, as a response to the open ended questions that followed. The “All of the Above” option was also taken out so that the delegate would have to make a decision on what they thought was the most important aspect facing rhinoceros conservation. When a delegate answered “All of the Above” at the 2014 summit a value of “1” was assigned to each possible answer and this is why the percentages seen in Table 4.15 below are significantly higher for each option at the 2014 summit when compared to the 2015 summit.

Table 4.15 Keys areas of perceived importance regarding rhinoceros poaching shown as percentage of summit delegates mentions

| MOST NB ASPECT TO FOCUS ON IN TERMS OF POACHING | Education | Corruption | Poverty | Demand Reduction | Trade | Feet On Ground | Biodiversity | Other |
|--|------------------|-------------------|----------------|-------------------------|--------------|-----------------------|---------------------|--------------|
| 2014 PRE SUMMIT | 67% | | | 54% | 32% | 36% | | 5% |
| 2015 PRE SUMMIT | 49% | 5% | 13% | 11% | 5% | 7% | 11% | 0% |
| 2015 POST SUMMIT | 40% | 7% | 25% | 18% | 4% | 1% | 3% | 2% |

Many of the options for answers to this question point towards issues that contribute to the wicked nature of rhinoceros poaching. It is interesting to note how the focus from the first summit was comparatively on the importance of “Feet on the Ground” as a traditional method of curbing poaching. This “old school” way of thinking appears to have evolved to focus on a more holistic approach and the focus is now more on the factors that potentially lead to poaching in the first place such as poverty and lack of education. Education remained a key issues across all three surveys as well as the understanding that until poverty in Africa is addressed, it will be very difficult to eradicate poaching.

It can be seen how post 2015 Summit there was a big uplift in the number of delegates who perceived “Demand Reduction” tactics to be important. This was not as high as the first summit where there was a lot of focus on this topic due to the participation of the Vietnamese delegation in the summit. The involvement of the Vietnamese delegation had created a lot of media hype before the summit regarding the importance of demand reduction and educating youths from end user countries and this could explain why this answer featured so prominently in the first survey.

Further to the multiple choice question, the delegates were asked the same question but the answers needed to be open ended. Although this question is very similar to the multiple choice question, through the process of sensing, it was decided by allowing for open ended answers, the youth would have the opportunity to express their own thoughts on this issue and their answers would offer more in-depth insights into what perceptions the youth have towards rhinoceros poaching. A lot of key issues were mentioned and some of them were unexpected. The fact the “Poaching” featured so high was disappointing. It was assumed that this point was obvious and did not need to be mentioned. Perhaps it indicated the immaturity of the delegates and possibly in some cases a language issue of expressing themselves in English? The themes that emerged from the answers to this question can be seen represented as percentages in Table 4.16 below.

Table 4.16 What the summit delegates perceived to be the most important issues facing rhinoceros poaching expressed as a percentage of total mentions.

| WHAT DO YOU THINK IS THE BIGGEST PROBLEM FACING RHINO PRESERVATION TODAY? | Poaching | Poverty | Lack of education/ understanding and awareness | Sustainability/ loss of habitat | Extinction/ No Big 5/ Future Generations | Corruption/ Lack of Political Will | Lack of security | Greed | Belief in Medicine/ Monetary value of horn | Demand in Asian Countries | Lack of Funds | Lack of community Involvement |
|---|----------|---------|--|---------------------------------|--|------------------------------------|------------------|-------|--|---------------------------|---------------|-------------------------------|
| 2014 PRE SUMMIT | 13% | 22% | 37% | 2% | 0% | 19% | 3% | 7% | 19% | 25% | 3% | 6% |
| 2015 PRE SUMMIT | 15% | 6% | 31% | 4% | 14% | 11% | 6% | 8% | 34% | 8% | 0% | 0% |
| 2015 POST SUMMIT | 26% | 22% | 29% | 0% | 3% | 25% | 10% | 0% | 18% | 15% | 13% | 6% |

Across all three surveys, lack of education emerged as a major issue, followed closely by demand reduction. These two themes are closely related as demand reduction basically refers to the need for education in end user countries. As seen in the multiple choice question above the need for effective demand reduction featured very highly in the first summit survey with 25% mentioning it. This supports the thought that the hype around demand reduction campaigns before the summit may have influenced the delegate’s views.

It was interesting that 22% of the delegates at the 2014 summit and at the end of the second summit noted that poverty was directly linked to poaching. This suggests that the delegates had a deeper understanding of the important issues that contribute to the wicked problem that is rhinoceros poaching. The delegates appear to understand that in many cases it is desperation that leads to people becoming poachers. The emphasis on the medicinal and monetary value of the horn was unexpectedly high in the pre- summit survey for 2015 but this did drop by almost half in the post summit survey. This suggests that the perceptions that the delegates have regarding what the most is the important issue facing rhinoceros preservation shifted towards a more holistic view. Themes that support the wicked nature of rhinoceros poaching such as corruption, poverty and lack of funds and community involvement all increased. One of the delegates summed up the wicked nature of rhinoceros poaching as follows; “Humans - we are overpopulated, uneducated, immoral and desperate. People want to help but don't know what to do...”

A theme that was expected to feature more prominently was the need to keep rhinoceros alive so that future generations can see them. This was one of the most common themes that emerged from the “Art Messaging” and the lack of support for this theme in the open ended questions links back to the observation made in section 4.2.4 that there was an element of disbelief regarding the prevalence of this theme in the messaging. This is discussed in more detail in section 5.12

4.4.5 The perceived role of government and non- profit organisations with regards to rhinoceros poaching

A further two questions that were asked to gain a deeper understanding as to what perceptions the youth had in terms of where certain responsibilities lie with respect to rhinoceros poaching. The first

question asked what the government should be doing differently and then a later question asked the same question of conservation agencies. The themes that emerged from the answers suggest that there is confusion as to what responsibilities lie with government and what could be driven by conservation agencies. Table 4.17 below highlights the perceptions that the summit delegates had regarding what issues the summit delegates felt should be government’s responsibility or what government could be doing differently.

Table 4.17 Summit Delegates perceptions as to what government could be doing differently with regards to rhinoceros poaching expressed as percentages of total mentions.

| WHAT SHOULD GOVERNMENT BE DOING DIFFERENTLY? | Education | Take a Stand/ Political Will | Involve Communities | Job Creation | Better Security/ Feet on Ground and boarder control | Harsher Punishments | More Money | Stop Corruption | Demand and Trade |
|--|-----------|---------------------------------|------------------------|--------------|--|------------------------|------------|-----------------|---------------------|
| 2014 PRE SUMMIT | 25% | 14% | 7% | 13% | 25% | 29% | 12% | 15% | 10% |
| 2015 PRE SUMMIT | 24% | 7% | 10% | 7% | 53% | 24% | 14% | 6% | 8% |
| 2015 POST SUMMIT | 13% | 36% | 18% | 7% | 35% | 24% | 33% | 6% | 4% |

Thirty percent of the delegates think that the most important change the Government needs to make is that there should be stricter consequences for poachers. Many of the answers also referred to needing more money. Although calling for harsher punishments and asking for more money features as an answer to both the questions regarding government and conservation agencies, the higher percentages indicate that the youth perceive these are issues that government should take ownership of.

Understanding the need to involve communities, is becoming more relevant and the fact that 18% of the delegates in the post summit survey of 2015 mentioned this, can be viewed as positive progress. At the end of the 2014 summit, all delegates were required to write up resolutions or actions that they would make in their individual capacity to raise awareness about rhinoceros poaching in their local communities. In many of the resolutions that emerged there was a call for government involvement but when the delegates where questioned on how they would achieve this government this, they admitted that they did not know.

This led to a shift in consciousness in the “Rhino Art” team. By working through the 7 steps of the “U” process, the team had a moment of presencing that led to a significant change in the way these issues where approached. By suspending the question of how the youth would involve government in their actions, it emerged that although the “Rhino Art” team had ignited passion in the youth regarding rhinoceros conservation and educated them on the matter, the youth had not be given concrete methods to achieve their goals. Through this circle of deepening understanding of how the youth perceive rhinoceros poaching, it was decided that one aspect of the “Rhino Art” team focus would be on enabling the youth to act on their resolutions.

This was crystallised at the second summit where part of the agenda included a local politician explaining how politics works at a local level and teaching the delegates how they could engage local and provincial government on environmental issues and giving examples of how they could call for a

change of political will. Given that the number of mentions regarding political will grew from 7% at the start of the second summit to 36% at the end, it is assumed that this information was very well received and could lead to future action. Table 4.18 below shows what the summit delegates perceive to be the key issues that conservation agencies should be addressing with regards to rhinoceros poaching. When comparing Tables 4.17 and 4.18, it can be seen that in all three surveys, the percentage of mentions on these two issues was higher regarding conservation agencies compared to government.

Table 4.18 Summit Delegates perceptions as to what conservation agencies could be doing differently with regards to rhinoceros poaching expressed as percentages of total mentions.

| WHAT SHOULD CONSERVATION AGENCIES DO DIFFERENTLY? | Education | Take a Stand | Involve Communities | Job Creation | Better Security/ Feet on Ground and boarder control | Harsher Punishments | More Money | Stop Corruption | Demand and Trade | Pressure Government | Social Media/ Media | Doing Everything they can |
|---|-----------|--------------|---------------------|--------------|---|---------------------|------------|-----------------|------------------|---------------------|---------------------|---------------------------|
| 2014 PRE SUMMIT | 31% | 6% | 18% | 4% | 33% | 6% | 3% | 5% | 10% | 2% | 6% | 8% |
| 2015 PRE SUMMIT | 43% | 1% | 13% | 0% | 37% | 10% | 4% | 1% | 9% | 1% | 4% | 0% |
| 2015 POST SUMMIT | 21% | 3% | 24% | 6% | 27% | 6% | 6% | 1% | 19% | 6% | 6% | 6% |

Education and involving communities also featured in the answers to both questions but in this case the expectation as to who should be solving these issues favoured Conservation Agencies. The reason for this perception could be a result of the delegates having experienced both education and community involvement first hand in the form of both the “Rhino Art” project and the summit itself which are conservation agency initiatives.

There is a sense that the delegates may not have seen an active participation on government’s behalf regarding education and community development. When conservation agencies such as Project Rhino KZN arrive in a local community school to run projects like “Rhino Art” it is usually an isolated event in the school calendar that is surrounded by a lot of fun and hype and will be remembered by the youths at that school. This could give rise to the perception that conservation agencies do more for education and community involvement than government.

In all the answers to the above questions there appears to be a good understanding of the problems facing rhinoceros poaching and the underlying issues that exacerbate and contribute to the wicked nature of rhinoceros poaching. However, when faced with more specific questions the answers were very generic. This could have been due to time constraints as the delegates were given limited time to complete the survey. In some cases, it could have been a language issue as English was not always the delegate’s first language. Viewing the answers through the lense of Theory U, there was a sense that in some cases the youths were writing what they thought the summit organisers wanted to hear and not what they actually felt. This was evident in the “Art Messaging” but not to the same extent as the survey answers. This thought is expanded on in section 51.2.

Chapter 5 Discussion of Results

Having analysed the data that emerged from this study in Chapter 4, the results are discussed with a view as to how the lense of Theory U was used to deepen the systematic understanding of perceptions that selected youth populations have towards rhinoceros poaching. Key themes in the youth perceptions that emerged from the “Rhino Art”, “Art Messaging” and summit surveys are reviewed. Specific emphasise is placed on the patterns that emerged based on geographic locations especially with respect to the differences in perceptions that emerged based on youth from urban versus rural backgrounds. It is shown how the lense of Theory U has been employed to understand how selected leaders have developed into a network of co-thinkers as the “Rhino Art” team and how their perceptions and actions have been transformed based on the key outcomes that emerged from the art, art messages and surveys.

5.1 Urban versus Rural: Youth Perceptions towards Rhinoceros Poaching

From the analysis of the art, it can be seen that there are differences in the way urban versus rural youths perceive rhinoceros poaching. It therefore follows that there needs to be different approaches in terms of communication and education with respect to rhinoceros conservation. The first indication of this was in section 4.2.2 whereby the manner in which youths verbalise the calling for an end to rhinoceros poaching was viewed through the lense of Theory U. It was identified that youth from an urban background favoured the term “Save the Rhino” whereas youths from a rural background preferred “Don’t Kill the Rhino”. By analysing the data from a new perspective and suspending the data so that new information could become apparent, other examples of the differences began to emerge. Ways in which these differences could transform the way in which selected leaders could change the way they approach youth in terms of rhinoceros education began to be crystallised and in some cases have been prototyped by the “Rhino Art” team in the field.

Using the above example, it is assumed that the youths are more comfortable and open to learning when they encounter words and ideas that resonate with them. It therefore follows that a simple action would be to use the term “Saving Rhinos” when addressing an audience from an urban background and to rather focus on “not killing rhino” when talking to rural audience.

A further analysis of the data led to a sense that on the one hand, from an urban perspective, it appears that the youth are emotionally invested in the idea of saving rhinoceros but removed from the actual reality of what rhinoceros poaching involves. On the other hand, although rural youths understand the harsh reality of poaching, they do not have the same level of emotional connection with rhinoceros. These ideas are looked at individually below.

5.1.1 Seeing Rhinoceros in the Wild

One of the reasons that could result in the perceived lack of emotional connectedness that rural youth have towards rhinoceros poaching is that the majority of these youth have not encountered a rhinoceros in the wild. This is something that has been a concern of the “Rhino Art” team and actions that arose to try and understand the extent of this problem include placing the question “Have you seen a rhino in the wild” on the “Rhino Art” templates and in the summit surveys.

The extent of this problem became apparent when training the “Ezemvelo Community Rhino Ambassadors” on how to run the “Rhino Art” project so that they could use the project as part of their community rhinoceros education program. During the training of the 100 “Rhino Ambassadors” based in Weenen it emerged that out of 100, only the 5 Ambassadors who had attended the Youth Rhino Summit in 2014, had seen rhinoceros in the wild. The ambassadors suggested that this was a huge problem in their work as it is very difficult to teach others about conserving an animal that they themselves have never seen. This supported the thoughts the “Rhino Art” team had regarding the importance of seeing rhinoceros in the wild.

As a direct result of this training, a partnership was formed with Weenen Game Reserve so that all the Ambassadors working in that region could visit the game reserve and see rhinoceros in the wild. The feedback from this initiative has been incredibly positive with the Ambassadors having a much better appreciation of the importance of their job. Based on this success, the value of seeing animals in the wild and being able to form an emotional attachment to the animal was realised. Viewing this with an open mind led to an expansion of the “Rhino Art” project called “Rhino Vision” This aims to take as many youths as possible into game reserves so that they can experience seeing rhinoceros and other animals in their natural habitat and therefore foster an emotional connection with wildlife and conservation. The two projects are linked in that wherever possible, a visit to a local game reserves is offered as one of the prizes for the winning “Rhino Art” and “Art Message” within their schools.

5.1.2 Keeping Rhinoceros alive for Future Generations

The concern that rural youths do not have access to seeing rhinoceros in the wild links into another observation pointed out in section 4.2.4. It was seen that after the “Pleas” to stop killing rhinoceros, the theme with the highest percentage of rural mentions was “Future Generation”, nineteen percent of rural youth suggested that keeping rhinoceros alive so that future generations can see them was the most important reason to save rhinoceros from extinction. This finding echoed early research by Picard (2003) that found that 17% of residents from a local village identified the need to preserve protected areas for future generations.

Suspending this thought with an open mind allowed for many questions to come forth. One of these questions was that if so many of today’s rural youth have not seen rhinoceros in the wild and it has not had any major negative impact on their lives, why is it so important that they want their children and grandchildren to see rhinoceros? This gives rise to the concern that was expressed in sections 4.2.4 and 4.4.5, that the youth could be writing messages that they think the “Rhino Art” team want to hear in order to try and gain favour or win a prize.

Education initiatives aimed at preventing rhinoceros poaching sometimes use promotional statements like “Save the Rhino so your children can see them” and a concern is that these messages are been repeated back to the “Rhino Art: team in a parrot like fashion without fully understanding what the statement means. A limitation of the analysis done in this study as a way to deepen understanding that youths have towards rhinoceros poaching is that it is difficult to tell what messages are true reflections of their perceptions and when something that has been seen or heard in media or other forums is

repeated back without understanding. This suggests that in-depth interviews or focus groups could be used to better understand how these perceptions are formed.

5.1.3 Perceptions of Urban Youth

As pointed out above, a problem that is more heavily skewed towards urban youth than rural is the lack of understanding as to the reality of rhinoceros poaching. This thought emerged by noting how often popular culture and assigning human elements to rhinoceros was used in the “Art Messages” as a way of expressing their will to save rhinoceros. In the drawings there were also far more instances where flowers, hearts and images from popular media were used in art originating from an urban background compared to images of poachers and weapons that were evident in rural drawings. This could be linked to globalisation and the role media plays? There is much publicity surrounding rhinoceros poaching and public figures such as President Zuma and Prince Harry being linked to the cause adds to the hype.

There appears to be a need to communicate some of the harsher realities of rhinoceros poaching to these youths when educating them on conservation issues. Urban youth tend to be very sheltered as per the example given in section 4.1.3 where some schools do not allow graphic videos of rhinoceros poaching to be shown to the pupils. While it is understandable that young pupils should not be upset by graphic content, there are other important issues that add to the overall wicked nature of rhinoceros poaching that could be communicated to these youths such as poverty which in turn leads to no funds to educate the youth.

What was particularly evident from the summit surveys from 2015, where there was a survey at the beginning of the summit and another at the end, was the positive change in the answers in the second survey. The answers in the second survey appear to be far more mature addressing the issues mentioned above. This suggests that the youth have often not been exposed to these complex issues but once they know about them, they are able to assimilate the information very quickly and understand the potentially far reaching consequences of factors that feed into the rhinoceros poaching problem.

In the first 2015 survey, the majority of the focus was on the value of rhinoceros horn but in the second survey, there was a more even distribution of concerns including poverty, corruption, political will, lack of funds and community involvement. These were issues that had hardly been considered at the start of the summit. This strongly supports the idea of having a holistic approach to education in terms of rhinoceros poaching.

5.1.4 Perceptions on Rhinoceros Horn

It is known and understood that rhinoceros are killed illegally for their horn and that on the black market rhinoceros horn is incredibly valuable. Rhinoceros horn is used by traditional medicine users in Vietnam and China and for unproven cancer reducing properties (Ferreira, et al., 2014). One of the messages that the “Rhino Art; team tries to communicate to youth when running education programs is that rhinoceros horn is not medicine. However, the data analysis suggests that this has not been done effectively.

As seen in Table 4.7 there is no difference in the number of youths who perceive rhinoceros horn to be medicine compared to those who believe it is not medicine. There is however a difference with the rural versus urban respondents whereby 3% of urban youth perceive rhinoceros horn as not being medicine compared to 3% of rural youths who believe that it is. By holding this observation up to the lense of Theory U, potential reasons for this emerge. There could be an issue with translation and that the message has not been fully explained to youths where English is not their first language. In the case of Swaziland, there were many mentions that rhinoceros horn is used by traditional healers. This is not seen in South Africa or Namibia but it could be a local custom that explains why 5% of Swazi youth perceive rhinoceros horn to have medicinal properties.

There appears to be an anomaly in the data where 7% of urban youths from Gauteng say that rhinoceros horn is medicine. This was initially a concern but by following the “U” process and going back to data it emerged that this was a very small sample of only 28 youths who were from Afrikaans schools and again this could be a translation issue. Through this process, the “Rhino Art” team are able to follow up with the school and establish why this perception is prevalent. This is an example of how the analysis of the “Rhino Art” can lead to action in the field.

5.1.5 Perceptions on economic benefits of Rhinoceros Conservation

One of the main concerns that emerged from the analysis of the “Rhino Art” and “Art Messaging” was the very low perceived importance of the economic consequences of rhinoceros poaching and conservation. Tourism is a major contributor to the Southern African economy and game reserves with the promise of seeing the “Big 5” as a major attraction and contributor to the tourism sector. As such the preservation of rhinoceros as part of the “Big 5” has significant economic consequences. The data showed that youth in South Africa in particular did not perceive a link between the economy and rhinoceros poaching.

Other research into how local youth perceive the economic benefits of conservation showed that in the Samburu region in Kenya, two thirds of all responses thought that an economic benefit could be offered by the Parks through tourism (Bruyere, et al., 2011). However there was very little economic benefit seen by community in terms of job opportunities as staff are employed from outside the community and tourists do not stop in the village to buy arts and crafts. This is at odds with the strong belief that the primary benefit of the Park is financial but could explain why the youth in South Africa do not appear to perceive an economic benefit to rhinoceros conservation.

By following the “U” process, the economic perceptions were suspended and examined thoroughly. By letting go of all previous thoughts on the subject, new patterns came forth. The expectation had been that urban youths would have a far better understanding of the economic implication of rhinoceros poaching. The analysis of the data showed this not to be the case and new ideas had to be crystallised. Only 7 urban youths made any reference to job opportunities, tourism or economic implications of rhinoceros poaching. It should be noted that just because these perceptions were not evident in the “Rhino Art” and “Art messaging” does not mean that the youth are not aware of them. However, the absolute absence of any mention of these themes in an urban environment is concerning.

Although 10% of rural youths recognise that there is a link between tourism and rhinoceros poaching, the link to job opportunities, at 2%, is very low. This result was unexpected in the rural communities as many of these communities are reliant on nearby game reserves for employment and in the absence of the game reserve, there would be very few other job opportunities.

As covered in sections 4.2.5 and 4.2.6, these issues were more prevalent in Namibia and Swaziland which suggests that there might be an education component in these countries that emphasises the link between conservation and the economy. Further research into this matter is needed, because if this material exists it could be adopted in South Africa. There should be a strong message explaining that if rhinoceros become extinct, there will no longer be a “Big 5” which takes away one of the reasons why tourists visit Southern Africa. If tourists stop coming to the area, then game reserves will close down which will mean that people who work at those game reserves will be unemployed.

Viewing this conundrum through the lense of Theory U, it appears that part of this message is effective when educating youth and influencing perceptions. The youth are aware of the “Big 5” and 8% of the sample made reference to this but the sense is that the link between the “Big 5”, tourism and monetary rewards is not being made effectively. From the deeper understanding that practicing Theory U offered, this can be seen as one of the major shortcomings in educating youth in Southern Africa on the consequences of rhinoceros poaching.

5.2 Education of Youth about Rhinoceros Poaching

There have been a number of examples where sub-standard education in Southern Africa is an issue that contributes to the overall wicked problem of Rhinoceros Poaching. One example was discussed in section 4.1.1 when looking at the quality of the “Rhino Art” and another in 4.2 when looking at the lack of understanding that was apparent in the “Art Messaging”. Even in section 5.1.5 above, the lack of understating of economic consequences of rhinoceros poaching is a direct link to lack of education on the subject.

There have been many cycles of reflection and action though the “U” regarding the education aspect of rhinoceros poaching and through each cycle of the “U”, as seen in Figure 1.2, the understanding of this issue had grown and deepened. The “Rhino Art” project was inspired by wanting to educate youths living close to the boarders of game reserves about rhinoceros poaching and at the time art was identified as the platform to do this. Another cycle of reflection resulted in the action of a summit and there are many other lessons and changes that are explained in 5.3 below. What has however become apparent is the vast difference in levels of education available to youth in Southern Africa and in some cases, the very poor level of education that does exist.

A striking example of the extreme lack of education is that more than half of Grade 12 learners drew art that was deemed to be either basic or poor. The other example was of students copying out of a book and not finishing the sentence. This strongly suggests that there was no understanding of what had been written. Viewing this issue from the bottom of the “U”, it can be seen how the poor quality of education feeds into the overall wicked problem of rhinoceros poaching. As pointed out by Fenio (2014)

in section 2.7 bored, unemployed youths with few other job prospects can be tempted to become poachers thus adding to the problem.

The chain reaction of poor education as part of the wicked problem of rhinoceros poaching can very simplistically be linked into the poverty cycle as follows. Poor education leads to unemployment which in turn results in poverty and then desperation which could lead to poaching. Education was the starting point of the “Rhino Art” project but the analysis of the art, the messages and surveys has uncovered what a massive task still lies ahead. There is a deeper understanding of what perceptions the youth from selected populations in Southern Africa have towards rhinoceros poaching but the practice of thinking and action guided by Theory U has shown that these perceptions could be very different if the youth had access to better education.

5.3 The journey of “Rhino Art – let our children’s voices be heard”

The insights gained by the “Rhino Art” team’s deepening of understanding of youth perceptions can be better understood by following the journey, seen through the lense of Theory U, that the team has followed from the inception of the “Rhino Art” project to the present. There have been a number of changes and improvements in the project and each one of these has been made by following the “U” process presented in Figure 2.1. In each case the learning of the current phase of the project needed to be suspended and then looked at with a different perspective or what could be termed as “fresh eyes”. Sometimes this was achieved by using an open mind and introducing new people to the team or sharing problems with experts in the field and by doing this, thoughts were redirected and let go. At the bottom of the “U”, a very real connection and “open will” to the passion that drives the team and the belief that preserving the rhinoceros from extinction is the source that drives every action. This connection kept the focus and momentum of the project going and allowed for new ideas to come in. These ideas were crystallised by seeking assistance from experts in other fields, extensions and changes in the project were prototyped and then acted on.

The first example of the cycle which has been explained was the start of the project. The need for an affordable and effective education intervention was identified and driven by the passion of the Kingsley Holgate Foundation, the project was launched. The initial collection of the art was the first process of suspending thoughts. When this took place it allowed for the team to “let go” of the notion that the youth had no potential. The project was initially only going to run for the duration of the “Izintaba Lubombo Expedition” and the first redirecting of thoughts was to extend the project for a further 3 months, then a year and now indefinitely.

A recent change in the “Rhino Art” Project has been the introduction of a new art template. In the initial phases of the project, all art was collected so that the “Rhino Art” team could physically meet the objective of collecting the largest number of “Hearts and Minds” messaging towards rhinoceros poaching. This objective has been achieved and the team let go of the notion that every piece of art needs to be collected. Through the process of presencing, it was realised that it would be more beneficial to leave the art with the artist so that they could keep it and share the message with family and friends in their communities. Once this decision was made, it followed that the template should contain more information about rhinoceros conservation so that it could be referred for future learning.

A new template that can be seen in Appendix L has been crystallised and will be prototyped in selected schools in 2016.

The success of the “Rhino Art” and the identification of its limitations led to the “Youth Rhino Summit”. Initially the summit was going to be hosted at an existing school camp facility and was going to be a low key event in terms of media. The team was then offered the opportunity to host the summit at the Hluhluwe-iMfolozi Park. When this idea was suspended in front of the team, the idea of restricting the summit to a low key event was let go and many new ideas came forth. The symbolism of hosting a rhinoceros youth summit at the same location where rhinoceros were saved from extinction in the 1960’s was crystallised and ways in which the summit could take place began to be prototyped. To add to the symbolism, the event was planned so it would take place on “World Rhino Day” and the man responsible for the conservation success story of saving rhinoceros from extinction in the 1960’s Dr Ian Player was invited as a key note speaker. One of the most important decisions that was made during the practice of thinking and action guided by Theory U was to include youths from international backgrounds and to invite a delegation of youths from Vietnam to represent youths from an end user country.

As the teams understanding of the magnitude and ramifications of organising the summit deepened it became apparent that the initial “Rhino Art” team could not organise the summit on their own. The team then enlisted the help of over 20 volunteers from various backgrounds including media and branding specialists, event organisers and experts on rhino conservation. From humble intentions to host a small gathering of youth at an existing school camp, the summit grew into an international event at the symbolic home of rhinoceros conservation, Hluhluwe iMfolozi Park. The summit culminated with 132 youth from around the world writing six resolutions of what they, as the “future leaders” of conservation, would do to stop rhinoceros poaching.

One of the most important actions that came out of the summit was the realisation that it was the responsibility of the team to help the youth act on these resolutions by giving them the platform in terms of facilitating the development of a nourishing environment in the social media realm. Interactive facebook groups and pages were set up to facilitate communication between like- minded youth and to act as central place where ideas and learning could be shared. It became evident that as long as communication occurs in a shared context, fertility abounds (Wheatley, 2006). In order to combat the rising surge of rhinoceros poaching we need a network of relationships from people who share a common cause and vision of what is possible by allowing new knowledge, practices, courage and commitments to develop. From these relationships, emergence becomes possible and it is this process by which all large scale change can happen (Wheatley & Frieze, 2007).

Another significant insight that emerged as the role players moved through the “U” was the understanding, particularly in urban areas, that the “Rhino Art” and a “colouring in” competition was outdated and not effective. Through consulting with marketing and social media experts the team once again suspended their views on the art and looked at ways of interacting with youth from a new perspective with inputs from different members of the Rhino Art team. Through this process the idea that art was the only way to interact with and educate youths on the importance of rhinoceros

conservation was let go. Through the process of “Letting Come” the project now uses video messaging to complement the already substantial collection of “Art messaging”. Now instead of youths only writing their “Hearts and Minds” messages regarding rhinoceros poaching on a piece of A3 paper with the outline of a rhinoceros on it, they are able to film their messages either as individuals, groups or even schools.

The biggest learning has been that the team needs to be fluid and to change and grow as new needs emerge. By working together, the “Rhino Art” team co-sensed and co-created so that new ideas could emerge throughout this process the #RhinoShoutOutChallenge was created which has allowed youth another way of using their voices in support of rhinoceros conservation and has created tremendous traffic and support across all social media platforms. With “Rhino Art” it was the responsibility of the team to post pictures of the art on social media to try and create awareness. Through the #RhinoShoutOutChallenge campaign, youths are now able to post their own videos and create social media content and this better realised the goal of fostering a social media environment where youth could interact and communicate.

At the first “Youth Rhino Summit” a delegation of youth from Vietnam attended. This gave youth from an end user country the opportunity to see rhinoceros in the wild and the chance to form an emotional connection with rhinoceros. They were also able to meet with and share ideas on conservation with other like-minded youths and learn from experts in the conservation industry. These youth were able to go back to Vietnam and share their learnings and experiences with their friends and families and create an awareness in Vietnam about the plight of the rhinoceros. These delegates became ambassadors for conservation in their country and have gone on to present public talks on poaching and they continue using their voices as a call to action against rhinoceros poaching on social media platforms.

Progressing on from this success and knowing the importance of reducing the demand for rhinoceros horn in Asian countries, a delegation of South African Youth visited Vietnam, in October 2015, where they reached a variety of audiences including thousands of youths and a number of high ranking government officials. Their trip was well documented by both South African and Vietnamese media platforms including national television and the overall feedback was incredibly positive in terms of promoting the reduction of the use of rhinoceros horn in Vietnam. Important relationships were formed with conservation and government agencies in Vietnam to ensure these youth exchange programs continue in the future so that the network of like-minded youth can continue to grow fostering an environment for the emergence of wise collective actions to stop rhinoceros poaching, to develop.

Chapter 6 Conclusions

In conclusion, this research has strived to show that Theory U is beneficial in leading to a deeper systematic understanding of the perceptions the selected youth populations within Southern Africa have towards rhino poaching. This was done by using the lense of Theory U as a framework to guide and structure the analysis of “Rhino Art”, “Art Messaging” and summit survey’s. Through this process key themes highlighting the perceptions that the youth of Southern Africa have toward rhinoceros poaching were uncovered which ultimately led to a deepening of understanding of the perceptions that youth have towards rhinoceros poaching. It is recommended that the “Rhino Art” team continue to use the lense of Theory U so guide and shape their thinking with respect to this project.

Though the analysis of the art and surveys it is concluded that Theory U was an effective way to deepen systemic understanding of the perceptions that the youth of Southern Africa have towards rhinoceros conservation. Through ever deepening cycles of reflection and action, the perceptions that the youth hold became more evident and understood by the “Rhino Art” team. Initially the aim of the art was to gather the largest collection of “Rhino Art” to act as a “call to action” against rhinoceros poaching and all forms of wildlife crime. By using the lense of Theory U to examine this art at a deeper level, themes were uncovered and patterns emerged in these themes based on geographic location. Ultimately, there is a far deeper understanding in the members of the “Rhino Art” team of how the youth view rhinoceros poaching and conservation and the power that these views hold has been realised. This has led to a number of practical actions explained on in section 5.3, to unleash this power and further explore the thought processes and perceptions held by youth populations both in South Africa and now internationally.

The analysis of the “Rhino Art” revealed a number of themes which were further broken down into sub-themes and analysed in detail. A conclusion that may be drawn from this research is that there was a skewed tendency towards more detailed depictions of poaching from rural respondents showing poaching scenes in graphic detail and interaction between police and poachers on the ground. This is compared to a more removed view from urban artists who tended to have a better quality of drawing but based their drawing on images and ideas from media and popular culture sources rather than reality.

There were marked differences in the quality of the art based on age and geographic location. Art from rural areas tended to be of an inferior quality when compared to that from urban areas. Although this was expected, the difference was more pronounced than anticipated. With the exception of Namibia, the inclusion of the National Flag in the art was far more prominent in urban art and it was concluded that this prevalence could be linked to media influences.

Although a total of 52 themes were identified though out the analysis of the “Art Messaging” there were certain themes that were more prominent than others based on geographic location. An example of this is that the mention of preserving rhinoceros to be part of the “Big 5” and for “Future Generations” featured far more obviously in rural areas than urban ones. Conversely, urban youth focused on assigning human characteristics to rhinoceros and popular culture to convey the message that poaching

should be stopped. A conclusion is that this could be linked to media and social media and it is therefore recommended that care is taken when posting messaging about rhinoceros poaching on these platforms especially when aimed at a youth audience. An example of this is that the “Rhino Art” social media team makes a concerted effort to post encouraging stories about rhinoceros conservation giving examples of how the youth can become more involved. These posts are linked to other information sources where followers can read about the reality of rhinoceros poaching so that they can begin to create an informed opinion for themselves on the issue.

One of the most interesting observations that emerged was the importance placed on economic consideration by youth from Swaziland and Namibia compared to those from South Africa. It may be concluded that this is both a concern and an opportunity as it indicated a clear gap in the educational messaging that is being conveyed to children in South Africa at present. A recommendation going forward would be to assess how this messaging is being conveyed in Namibia and Swaziland then see if there is a way to duplicate this messaging in South Africa

The information contained in the “Rhino Art” is vast and gave many unexpected insights into the perceptions that the youth of Southern Africa hold towards rhinoceros conservation. However, a key conclusion that can be drawn is that there were limitations as to the amount and quality of information that could be gained from the “Rhino Art”. The summit surveys were therefore used to offer a deeper view into these perceptions and it is recommended that more surveys of this nature be done in the future to further deepen the understanding of perceptions that youth have towards rhinoceros poaching. It was deduced from the “Rhino Art” that education was a focus area for the future preservation of rhinoceros. This was made clear in the answers from the surveys where the education featured highly in answers to most questions.

A surprising theme that emerged from the analysis of the surveys was the call for more political will from government especially in terms of harsher punishments for poachers and for the government to make more funds available to be used for conservation measures. As shown in section 4.4.6, the youth responded very favourably to the summit session on politics and how the youth can become more actively involved shaping political will at a local level. One of the conclusions that emerged from the analysis of the “Art Messaging” is that although there are a number of organisations who provide this type of educational material, it appears that distribution and quality of the education material could be improved upon. This is an example of how conservation leaders could transform their perceptions and action towards rhinoceros poaching based on improving this educational material going forward.

A clear theme that emerged from the surveys that was not obvious in the “Rhino Art” was the understanding of the wicked nature of rhinoceros poaching. Even though the term might not have been known there were many references to the underlying issues that drive poaching such as poverty, unemployment, corruption and greed. A conclusion that was drawn is that tomorrow’s leaders understand that they need to deal with all these issues holistically if they are to preserve rhinoceros in the future.

It can be concluded that a major advantage of using Theory U as the framework to address this analysis was that it forced an open mind and allowed for new ideas to flow in. There were many pre-conceived ideas attached to the art and expectations of what the analysis would reveal. By using the rigour of Theory U, a process was followed that allowed new thoughts to come forward and a more widely informed analysis to be actioned. As mentioned in the introduction, there was a danger of excellent examples of “Rhino Art” and “Art Messaging” staying top of mind and to be considered the norm. By conducting a content analysis within the framework of Theory U a number of unexpected themes emerged and far deeper understanding of the perceptions that the youth of Southern Africa have towards rhinoceros conservation was realised.

In conclusion the objectives of this research were achieved in that key themes in the youth perceptions towards rhinoceros poaching emerged from the analysis of the “Rhino Art”, “Art Messaging” and summit surveys. Patterns in the themes were established in terms of geographic locations. This was particularly evident in the differences between perceptions of youth from urban versus rural backgrounds and those from outside of South Africa. From the discussion section 5.3, it may be concluded that the “Rhino Art” team representing selected leaders have developed into a network of co-thinkers. It may be concluded that Theory U was greatly beneficial in understanding how these leaders have transformed their perceptions on how to engage with the youth on rhinoceros poaching issues through the understanding of the perceptions that emerged from this analysis.

Ultimately, it may be concluded that by traveling through the “U” in ever deepening cycles of reflection and action, understanding of the perceptions that youth have towards rhinoceros poaching that emerged from the above analysis has grown and deepened. By suspending the “Rhino Art” it was analysed with “fresh eyes” and an open mind, heart and will. The journey through these cycles has resulted in many previously unknown insights. In many cases these insights have led to actions which were crystallised and then prototyped. Some of these actions led to another journey through the U and thus further deepened the understanding of the perceptions that the youth have towards rhinoceros poaching thus achieving the aim of the research.

Chapter 7 Recommendations

Following on from the above Conclusions, due to the limitations of this study there are a number of recommendations of ways in which this research could be used and areas where further research is needed. One such recommendation would be to encourage the youth to voice their concerns surrounding the lack of political will and the perceived lack of punishment regarding rhinoceros poaching with their local political leaders. This could be done by providing the youth with more information on who their political leaders are and ways in which they can potentially interact with them.

Another recommendation would be to continue to grow the network of youth talking about rhinoceros poaching and to include more stakeholders in the discussion so that more aspects regarding the wicked nature of rhinoceros poaching are considered and discussed. While it is concluded that Theory U was certainly beneficial in leading to a deeper understanding of perceptions that selected youth populations within Southern Africa have towards rhinoceros poaching, it is recommended that further study is needed in this regard. As seen in the literature review, there is limited academic research into the perceptions that youth hold towards conservation and these views are potentially valuable in adding to the understanding of the overall wicked problem of rhinoceros poaching and conservation in general.

As explained in section 1.7, there were limitations to the “Rhino Art” sample in that it only included art from 2013, all non- English art was excluded and there were only very small samples from Namibia, Swaziland and areas of South Africa outside of KwaZulu-Natal. A recommendation would be to expand this research to include art that did not fall into this original sample. By analysing more recent art, it can be concluded if perceptions have changed over time. By including a larger art sample from other Southern African counties it would become evident if the differences explained in sections 4.3.1 and 4.3.2 are representative of Namibia and Swaziland respectively. In this regard, it is recommended that by including art written in other languages the information that may have been lost by youths writing in a language that was not their first language could be uncovered.

Concerns over the authenticity of the messages and how this could have affected the way in which the perceptions were portrayed and analysed, was raised in section 5.1.3. It is recommended that a way that this concern could be alleviated would be to conduct focus groups and in depth interviews with the youth so as to probe their perceptions and potentially uncover their true perceptions as opposed to the youth writing down ideas without comprehending their meaning or relevance. Theory U would be a beneficial framework to use when conducting this type of research.

Finally it is recommended that ongoing research into the deeper collective understanding of youth perceptions towards rhinoceros poaching be guided by Theory U. Bruyere et al (2011) showed that children growing up next to wildlife areas will be tomorrow’s leaders, teachers, leaders and game rangers, all living close to the land and transferring their knowledge to their children. Further to that, it was shown that that the youth in the Kenya understood the basic conservation and economic benefits of wildlife parks (Bruyere, et al., 2011) but this does not appear to be the case in the perceptions that emerged from analysing the “Rhino Art”. The analysis of the art showed there to be very little understanding of more complex ideas such as ecological services and interrelated ecosystems. This

highlights the need for more studies into the perceptions that the youth have towards conservation so that at a later stage existing education material could be modified to further conservation efforts. Echoing the recommendation from Bruyere et al, (2011), this could be done in such a way that game reserves can emphasise the importance of Parks and conservation and why they are important to communities and thus enhance the relationships between Park and the community and its next generation of adults.

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Appendix A “Rhino Art” Full Spreadsheet with Transcribed messages and coding:

[..\Spreadsheet\rhino Art Spreadsheet - Appendix.xlsx](#)

Appendix B “Rhino Art” Website:

www.rhinoart.co.za

Appendix C “Rhino Art” Facebook Page:

<https://www.facebook.com/RhinoartAfrica/>

Appendix D “Rhino Art” School Spreadsheet

[..\Spreadsheet\School Information- Appendix.xlsx](#)

Appendix E Ethical Clearance



28 August 2015

Miss Bronwyn Alison Laing 952015070
School of Environmental Sciences – Geography
Pietermaritzburg Campus

Dear Ms Laing

Protocol reference number: HSS/0529/015M
Project title: Towards a deeper understanding of the social perceptions of the youth population of Southern Africa surrounding conservation and rhinoceros poaching in particular

Full Approval – Expedited Application

In response to your application received on 27 May 2015, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shenuka Singh (Chair)

/pm

Cc Supervisor: Dr Sumaiya Desai & Dr Mark Dent
Cc Academic Leader Research: Prof Onesimo Mutanga
Cc School Administrator: Ms Marsha Manjoo

Humanities & Social Sciences Research Ethics Committee

Dr Shenuka Singh (Chair)

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Appendix F Youth Rhino Summit Program 2014

| World Youth Rhino Summit Programme | | |
|------------------------------------|--|---|
| Day 1: Sunday 21 September 2014 | | |
| Time | Activity | Description |
| 12:00 | Arrival | Delegates enter the Hluhluwe-iMfolozi Park via Nyalazi Gate - symbolic home of the southern white rhino. They drive a short distance following signposts to the venue for the World Youth Rhino Summit at Centenary Centre and are met by a welcoming party. |
| 12:00-13:30 | Registration & Check Into Tent City | Youth Delegates, Chaperones, Media & Observers register in the Rhino Dome. Lunch served during registration. Youth Delegates are assigned to a Regiment named after a wildlife species found in Hluhluwe-iMfolozi Park and meet their counterparts representing over 20 nationalities from around the world. Facilitators show the Youth Delegates & Chaperones to their tented accommodation and settle them in. |
| 13:30-14:30 | Opening Ceremony | Grand Opening of the World Youth Rhino Summit 2014 - a powerful ceremony of sound, dance and audio visual introduces the reasons for the World Youth Rhino Summit - Let Our Voices Be Heard. Jabulani Ngubane , Conservation Manager for Hluhluwe-iMfolozi Park welcomes everyone and explains the health & safety rules. Preparation for the Rhino March & Tribute of Silence. |
| 14:30-15:15 | Rhino March and the Tribute of Silence | A tribute to the world's fallen rhino through a ceremonial building of an <i>Isivivane</i> (traditional Zulu stone cairn), built with pebbles that each delegate has brought with them from their home community. This will become a permanent Memorial of the 2014 World Youth Rhino Summit at the Magqubu Ntombela Centenary Centre. |
| 15:15-15:45 | Opening Speaker | Introduction to Indaba 1: Dr William Fowlds - Celebrity Wildlife Vet, TV personality and Rhino Elder - talks about the tragedy of wildlife poaching and organised wildlife crime. |
| 15:45-17:45 | Indaba 1 - Setting the Scene | Ms Colleen Fletcher - Principal of the American International School Mozambique and her team introduce Indaba 1: Setting the scene and why we're here - the global reach of the rhino poaching crisis put into context. Programme commences |
| 17:45-18:30 | Break | Shower Time |
| 18:30-19:30 | Dinner | Delegates in their Regiments, Chaperones & Conservation experts enjoy a bush braai |
| 19:30-21:00 | Tribal Council | Culture and Conservation: a campfire evening with traditional song and dance, and tales from the rhino poaching war. |
| 21:00-22:30 | Indaba 2 preparation | Preparation for World Rhino Day: an essential briefing on the 6 Critical Issues that the Youth Delegates will discuss and debate |
| 22:30-23:00 | Bedtime | <i>Lala Kahle (Sleep Well)</i> |
| 23:00 | | Lights out |
| | | Venue |
| | | Nyalazi Gate (Map attached) |
| | | Rhino Dome |
| | | Rhino Dome |
| | | Rhino Dome and Centenary Centre |
| | | Rhino Dome |
| | | Rhino Dome |
| | | Tent City |
| | | Rhino Dome |
| | | Tribal Council Arena |
| | | Rhino Dome |
| | | Tent City |

| Day 2 - 22 September - World Rhino Day | | | Venue |
|--|------------------------------|--|---|
| Time | Activity | Description | |
| 05:30-06:30 | Wake Up | Wake up to the sound of Zulu drums; ablutions & shower time | Tent City |
| 06:30-7:30 | Breakfast | Breakfast in regiments with break-away activities. | Rhino Dome |
| 07:30-08:00 | Indaba Preparation | Youth Delegates divide into the 6 Critical Issues Teams | Rhino Dome |
| 08:00-08:30 | Speakers | Messages from East Africa: Dr Paula Kahumbu from Kenya's Hands Off Our Elephants and Peter Moll , Founder of Stand Up, Shout Out engage the audience with aspects of their lives and work as wildlife activists. | Rhino Dome |
| 08:30-11:30 | Indaba 2 - 6 Critical Issues | Indaba 2 is led by the youth delegates with minimal adult participation. This Indaba will be done in two sessions of lively discussions that will culminate in Resolutions, which will be showcased during the Closing Ceremony. In the second half, youth delegates will get to see wild rhinos and learn the history of rhino conservation in Hluhluwe-Imfolozi Park through visiting the Game Capture Museum and Bomas, led by experienced Ezemvelo KZN Wildlife guides and rangers. Chaperone Programme continues. | Rhino Dome & breakaway areas |
| 11:30-12:00 | Speaker | Karen Trendler -co-ordinator of the Endangered Wildlife Trust's Rhino Response Strategy - talks about her experiences in caring for orphaned and injured rhinos. | Magqubu Ntombela Centre Rhino Dome |
| 12:00-13:00 | Lunch break | Lunch | Rhino Dome |
| 13:00-14:00 | Speakers | Chris Galliers - Chairman of the Game Rangers Association of Africa - shares the difficulties and dangers facing game rangers daily in the war against sophisticated poaching syndicates. Lawrence Munro , Ezemvelo's award-winning Rhino Operations Manager and coordinator of the Zululand Anti-Poaching Wing gives an introduction to rhino security. | Rhino Dome |
| 14:00 - 16:15 | Anti-Poaching simulation | A day in the life of Hluhluwe-Imfolozi Park's anti-poaching teams and ZAP-Wing. Followed by World Rhino Day photo-tribute | Airfield |
| 16:15-17:45 | Indaba 2 continued | Youth delegates complete the work from the morning session and inscribe their personal messages into the World Youth Wildlife Declaration's leather-bound book. Chaperone Programme continues. | Rhino Dome & breakaway areas Magqubu Ntombela Centre |
| 17:45-18:30 | Break | Shower Time | Tent City |
| 18:30-19:30 | Dinner | Delegates, chaperones, conservation experts, media and observers enjoy a traditional potjie dinner. | Rhino Dome |
| 19:30-21:30 | Voices of Protest | Delegates have fun showcasing their voices of protest through drama, dance, poetry, art and other forms of creative expression in a fireside concert, accompanied by David 'Qadas' Jenkins singing <i>Obhejane</i> and other performers. | Tribal Council Arena |
| 21:30-22:30 | Indaba 2 conclusion | Delegates finalise the Resolutions, finish their Pledge Board messages and personal commitments in the World Youth Wildlife Declaration book. & preparation for the Closing Ceremony | Rhino Dome |
| 22:30-23:00 | Bedtime | <i>Lala Kahle</i> | Tent City |
| 23:00 | Lights Out | Lights out | |

World Youth Rhino Summit Programme Time Line
Day 3: Tuesday 23rd September 2014

| Time | Activity | Description | Venue |
|-------------|--------------------------------------|--|------------|
| 05:30-06:30 | Wake up | Wake up to the sound of Zulu drums; ablutions & shower time | Tent City |
| 06:00-06:30 | Break Camp | Delegates & Chaperones pack up their kit | |
| 06:30-07:30 | Breakfast | Breakfast and Thank You to Summit Organisers | Rhino Dome |
| 07:30-08:00 | Rite of Passage | Delegates receive the Summit's 'Golden Rhino Medallion' and are inducted as Youth Wildlife Ambassadors, ready to return to home and make a difference | Rhino Dome |
| 08:00-08:45 | Inspirational Stories | World-renowned adventurer and fellow of the Royal Geographic Society Kingsley Holgate speaks about the roots of the Summit and the need for the voices of the world's youth to be heard. Celebrated youth wildlife activist Olivia Taylor shares her story. | Rhino Dome |
| 08:45-10:30 | Indaba 4 | In this final Indaba, Youth Delegates summarise their discussions and learnings from the Summit and formulate the key questions that will be put to the Panel of Rhino Elders during the Closing Ceremony. Chaperone Programme concludes. | Rhino Dome |
| 10:30-11:30 | Rhino Elders Q&A | The culmination of the Summit: Youth Delegates engage the Panel of Rhino Elders in a Q&A session that will be observed by the media, government and conservation leaders, members of Project Rhino KZN and key sponsors of the World Youth Rhino Summit. | Rhino Dome |
| 11:30-13:00 | Closing Ceremony | Presentation of the the World Youth Wildlife Declaration to government and conservation leaders. Remarks from the US Consul General Ms Frances Chisolm. Words of Appreciation by the Deputy Minister of Environment Affairs, Ms Barbara Thomson. Voice of thanks by Sheelagh Antroubus, Project Rhino KZN. The Summit concludes with an <i>Obhejane</i> chant and final performance. | Rhino Dome |
| 13h30-14:00 | End of World Youth Rhino Summit 2014 | <i>Hambane Kahle</i> (Go Well). All delegates, chaperones and guests depart Huluhluwe-IMfolozi Park. Safari Njema (Have a good journey) | |

Appendix G Youth Rhino Summit Program 2015



PROGRAMME

ORGANISING PARTNERS & SPONSORS



| Thursday 2nd July | |
|-------------------|---|
| 11h00 – 12h00 | Arrival & Registration |
| 12h00 – 13h00 | Lunch |
| 13h00 – 14h30 | Team-build Activity |
| 14h30 – 15h00 | Opening Ceremony: Kingsley Holgate, Richard Mabanga and Sheelagh Antrobus Opening video, overview of Summit's purpose and rhino poaching crisis Introduce World Youth Wildlife Declaration & the #RhinoShoutOutChallenge |
| 15h00-18h00 | Indaba 1 – Setting The Scene: Introduction to Critical Issues influencing rhino poaching & wildlife crime |
| 18h00 – 19h00 | Dinner |
| 19h00 – 21h00 | Maskandi Rhino Concert: Qadasi with Cultural dance groups from Lesedi & Shakaland |
| 22h00 | Lights Out |
| Friday 3rd July | |
| 07h30 – 08h30 | Breakfast |
| 08h30 – 09h30 | Key Note Speaker: Dr William Fowlds - World renowned Wildlife Vet <i>Poaching crisis! Who needs help? Them or us?</i> |
| 09h30-10h15 | Guest Speaker: Dr Leonardo Simão - Executive Director: Joaquim Chissano Foundation (Mozambique) <i>The importance of community development and effective legislation to reduce poaching and wildlife crime.</i> |
| 10h15-11h00 | Guest Speaker: Nigel Morgan – Chairman: Focus Africa Foundation <i>Role of actionable intelligence in the war on poaching</i> |
| 11h00 – 13h00 | Indaba 2 – Critical Issues Impacting on Rhino Poaching & Wildlife Crime |
| 13h00 – 14h00 | Lunch |
| 14h00-17h00 | Conservation in Action – <i>– Biodiversity educational 'Treasure Hunt' in Harold Johnson reserve + Fort Pearson & Ultimatum Tree</i> |
| 17h00 – 18h00 | Indaba 2 continued |
| 18h00 – 19h00 | Dinner |
| 19h00 – 21h00 | Fireside Chat – Kingsley Holgate, Mike Nixon & Cultural dance groups from Lesedi & Shakaland |
| 22h00 | Lights out |

Thanks to the following sponsors:



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PROGRAMME

ORGANISING PARTNERS & SPONSORS



| Saturday 4th July | |
|-------------------|--|
| 07h30 – 08h30 | Breakfast |
| 08h30 – 09h00 | Guest Speaker: Miss Julia Murray <i>Youth Can Make A Difference!</i> |
| 09h30-10h00 | Guest Speaker: Chris Laubscher – Conservationist & Politician <i>How to lobby local politicians to effect change</i> |
| 09h00-9h30 | Guest Speaker: David Bozas – Lawrence Anthony Earth Organisation <i>The importance of involving communities in conservation and rhino protection</i> |
| 10h00-11h00 | Team-build activity |
| 11h00-13h00 | Indaba 3 - Critical Issues cont. |
| 13h00 – 14h00 | Lunch |
| 14h00 – 15h30 | Debate: To Trade or Not To Trade – that is the question For: Andrew van Heerden (The Conservation Imperative) & Digs Pascoe (Space For Elephants Foundation) Against: Yvette Taylor (Lawrence Anthony Earth Organisation) & Chris Galliers (WESSA) |
| 15h30 -18h00 | Indaba 4: Critical Issue: Solutions & personal actions (Rhino Warrior Pledges) |
| 18h00 – 19h00 | Closing Dinner |
| 19h00 – 21h00 | Tribal Council: Rhino Warrior Pledges, Presentation of Rhino Summit Certificates, Regiments' #RSOC |
| 22h00 | Lights out |
| Sunday 5th July | |
| 07h00 – 08h00 | Breakfast |
| 08h00 – 09h00 | Rhino Olympics |
| 09h30 – 11h30 | Closing Ceremony Closing Remarks; #RhinoShoutOutChallenge Filming the World Youth Wildlife Declaration Procession |
| 12h00 | Depart |

Thanks to the following sponsors:



Dr William Fowlds * Dee Dickens & Maritzburg College

Julia & Bloss Murray * Andrew van Heerden - Conservation Imperative

Clifton Film Unit * Qadasi & Maqhinga * Di Martin EKZNW Design Studio

Pete Saville & the Harold Johnson Honorary Officers

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Appendix H “Youth Rhino Summit” Pre Questionnaire 2014



DELEGATE QUESTIONNAIRE

Summit Questions:

23rd September 2014

1. Have you seen a Rhino in the wild?

YES ____ NO ____

2. What do you think is the biggest problem facing Rhino Preservation today?

3. Which of the following do you think is the most important aspect to focus on in terms of conservation?

- a. Education
- b. Demand Reduction
- c. Legalise Trade
- d. Feet on the Ground
- e. All of the above
- f. Other

4. What do you hope to gain by having attending the World Youth Rhino Summit?

5. Is there anything the Government should be doing differently to fight the war against Poaching?

6. Is there anything Conservation Agencies should be doing differently to fight the war against Poaching?

7. Do you think Rhinos will become extinct in your life time?

YES ____ NO ____

Appendix I “Youth Rhino Summit” Pre Questionnaire 2015



DELEGATE QUESTIONNAIRE

Pre-Summit Questions:

2 – 5th July 2015

1. Have you seen a Rhino in the wild?
 - a. YES ____ NO ____

2. What do you think is the biggest problem facing Rhino Preservation today?

3. Which of the following do you think is the most important aspect to focus on in terms of conservation?
 - a. Education
 - b. Corruption
 - c. Poverty and Unemployment
 - d. Demand Reduction
 - e. Trade
 - f. Feet on the Ground
 - g. Biodiversity
 - h. Other

4. What do you hope to gain the most by attending the World Youth Rhino Summit?

5. Is there anything the Government should be doing differently / what should the government focus on to fight the war against Poaching?

6. Is there anything Conservation Agencies should be doing differently / what should they focus on to fight the war against Poaching?

7. Do you think Rhinos will become extinct in your life time?

a. YES ____ NO ____

Appendix J “Youth Rhino Summit” Post Questionnaire 2015



DELEGATE QUESTIONNAIRE

Post-Summit Questions:

2 – 5th July 2015

1. What, if any of your perceptions towards Rhino Conservation changed during the summit?

2. What do you think is the biggest problem facing Rhino Preservation today?

3. Which of the following do you think is the most important aspect to focus on in terms of conservation?

- a. Education
- b. Corruption
- c. Poverty and Unemployment
- d. Demand Reduction
- e. Trade

- f. Feet on the Ground
- g. Biodiversity
- h. Other

4. What did you gain the most by having attended the World Youth Rhino Summit?

5. Is there anything the Government should be doing differently / what should the government focus on to fight the war against Poaching?

6. Is there anything Conservation Agencies should be doing differently / what should they focus on to fight the war against Poaching?

7. Do you think Rhinos will become extinct in your life time?

YES ____ NO ____

Appendix K "Rhino Art" Template 2013 - 2015



Scan QR code & post your art on Facebook at
<https://www.facebook.com/RhinoArtAfrica>



Supported by:

| | | | |
|-------------------|------------------------------------|----|-----|
| Name and Age: | Grade and School: | | |
| Country and Area: | Have you seen a Rhino in the Wild? | NO | YES |

Appendix L New "Rhino Art" Template 2016

SIYABATHANDA OBHEJANE



LET OUR VOICES BE HEARD



SAVE OUR RHINOS BECAUSE...

Rhinos are important as part of our famous Big 5 African heritage. Rhinos have been on earth for more than 50 million years — can you imagine Africa with no Rhino?

There are two types of Rhino in Southern Africa, the black and the white. The white rhino is the second largest animal after the elephant.

Rhinos attract visitors and tourists to our game reserves and are good for job creation and the economy of our country.

If people carry on killing Rhinos for their horns they will become extinct in our lifetime.

If this happens your children and future generations will never see a Rhino in the wild. This will be a terrible tragedy for our Mama Africa.



Please give the baby Rhino a name:

RHINO POACHING

Rhinos are not asking to be killed — it's greedy and corrupt people that are the problem.

Criminal gangs kill Rhinos for their horns and smuggle them to countries like Vietnam and China where they sell them for big money.

Poachers are killing three or more of our Rhinos each day. This is because some people overseas wrongly believe that Rhino horn is a symbol of wealth or a powerful medicine. This is not true.

Rhino horn does not cure any disease, it's made from the same substance as our fingernails and hair.

The truth is that the killing of our Rhinos for their horns is illegal and causes these ancient animals terrible pain and suffering. We need to stop this terrible tragedy.

This is my message. I want my voice and my words to help save our Rhinos!

| | | | | | |
|---------------|-------------------|------------------------------------|-----|----|-------|
| NAME AND AGE: | GRADE AND SCHOOL: | Have you seen a Rhino in the wild? | YES | NO | Where |
| | | | | | |

