

Towards an Understanding of the Social Learning Dynamic in the Advancement of Rhinoceros Anti-Poaching in the iMfolozi Game Reserve

By

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Abstract

In the iMfolozi Game Reserve, illegal rhinoceros killings have increased by an order of magnitude since 2007 when only 1 rhinoceros was poached. In the years since then 6 were killed in 2008, 10 in 2009, 14 in 2010 and 9 in 2011. Law enforcement has been instituted vigorously, but has failed to stem this disastrous increase. It is therefore imperative that the conservation authority rethinks how best to conduct anti-poaching operations to minimize rhinoceros killings. The trend in killings since 2007 seems to be indicating that poaching syndicates are learning faster than the conservation authorities. A deeper understanding of this complex issue is necessary. The advancement of rhinoceros anti-poaching methodology in the iMfolozi Game Reserve is imperative because the iMfolozi Game Reserve is an important container for black and white rhinoceros meta-populations in southern Africa.

Despite increased efforts by Ezemvelo Kwa-Zulu Natal Wildlife (EKZNW), the South African Police and other strategic roleplayers, various restrictions have unfortunately hampered these efforts. Poaching syndicates have turned circumstances such as delayed adjusting by the authorities and increased technological communications available to poachers, to their advantage, affecting the law enforcement efficacy in the reserve and outmatching EKZNW.

There is a growing feeling amongst leading conservationists that it is imperative that the conservation and law enforcement authorities develop social learning skills that will enable them to learn faster than the rhinoceros poaching syndicates. With this in mind the aim of this research was to explore the extent to which the EKZNW authorities within the iMfolozi Game Reserve are well predisposed to healthy social learning.

Three objectives of this study were:

1. To review selected literature that surrounds and supports Scharmer's Theory U.

2. To assess the extent to which key roleplayers have been unknowingly and instinctively operating in accordance with Theory U type processes.
3. To explore whether key roleplayers have the potential to engage in dynamic social learning as framed by the Theory U paradigm.

The research methods used in this study were qualitative. Interviewees were a purposive sample of EKZNW law enforcement staff in the iMfolozi Game Reserve, all of whom hold positions of leadership, at various levels. Observations of social learning related phenomena were gathered through semi-structured interviews to attempt to extricate relationships and patterns with the aim of developing impressions in the light of a theory. The semi-structured questions probed the thoughts and past actions of interviewees in terms of the primary capacities of Scharmer's Theory U. The questions were asked in a narrative style without referring to Theory U.

The research findings showed that by applying the thought lenses of Scharmer's Theory U it was possible to discern behavior originating from the perceptions of the selected law enforcement officials. The findings indicated that there was an inherent willingness and capability for interviewees to subconsciously migrate down the reflection for deeper understanding side of Theory U. This involved positively engaging with the core capacities pertaining to suspending, re-directing, letting go and letting come. A disparity emerged when an analysis was made of the interviewees' propensity to effectively transform their thoughts into actions in terms of the core capacities. The core capacities of crystallizing, prototyping and institutionalizing, which form the right hand side of the U in Theory U were not realized. The research also revealed a disturbing tendency towards a preference for what Scharmer refers to as the absencing cycle type thinking and behaviors. One of the outcomes of such absencing behaviors was a distinct lack of trust amongst law enforcement roleplayers and hence poor sharing of strategic and operational information so vital for successful social learning.

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Authors Note

Throughout the history of iMfolozi Game Reserve, the protected area has undergone numerous name changes for various reasons. This study uses the current Ezemvelo KwaZulu-Natal Wildlife norm which is “iMfolozi” to describe the protected area within which this study has taken place. Similarly, the conservation authority which has been mandated to manage iMfolozi Game Reserve has also undergone a series of name changes. The name used in this study is Ezemvelo KwaZulu-Natal Wildlife as defined in Act 9 of 1997 and abbreviated to EKZNW as indicated within the list of acronyms.

Acronyms

EKZNW	Ezemvelo KwaZulu-Natal Wildlife as defined in Act 9 of 1999
IUCN	International Union for the Conservation of Nature
KZN	KwaZulu-Natal Province of the Republic of South Africa

Chapter 1. Introduction and Overview

1.1 Introduction

Rhinoceros poaching and the ongoing efforts by conservation officials in the iMfolozi Game Reserve in northern KwaZulu-Natal to curb such poaching are dynamic and complex. The order of magnitude increase in rhinoceros killings in iMfolozi is mirrored elsewhere in South Africa where all provinces except the Western Cape and Northern Cape have experienced severely increased levels of poaching activity according to, National Strategy for the Safety and Security of Rhinoceros Populations in South Africa, published by the Department of Environmental Affairs, (2011). As resource constraints are likely to be experienced permanently, a change in mindset and methodology towards rhinoceros anti-poaching is a possibility which needs to be explored with urgency. This research therefore set out to perform a case study in the iMfolozi Game Reserve to better understanding the social learning dynamic potential for the advancement of rhinoceros anti-poaching. Change in the social learning dynamic of the anti-poaching systems will involve new thinking at both an individual and a collective level. Precisely what this new thinking will be and exactly how it needs to change is unknown, at this stage. Conservation law enforcement officials in iMfolozi have three options to consider. They can:-

1. ignore the “mindset” issue totally and not consider it as an issue at all;
2. continue with the application of current thinking and invest even more money and resources into law enforcement systems with the hope that it is only a resource shortage that impedes law enforcement and the end of rhinoceros poaching, or
3. learn a new way to deal with sophisticated developments in rhinoceros poaching techniques through embracing social learning to harness the individual and collective anti-poaching knowledge within the potential knowledge system that is in EKZNW and the other law enforcement roleplayers operating in conjunction with them.

In view of the case study nature of this research, the past and current situation with respect to rhinoceros poaching in iMfolozi Game Reserve requires a form of literature review to present the case context. This review is placed in Chapter 2 rather than at this point in Chapter 1 because of the review's length and comprehensiveness.

1.2 Study Area

The area within which this study was conducted is iMfolozi Game Reserve. It is situated in the north eastern part of the province of KwaZulu-Natal, South Africa.

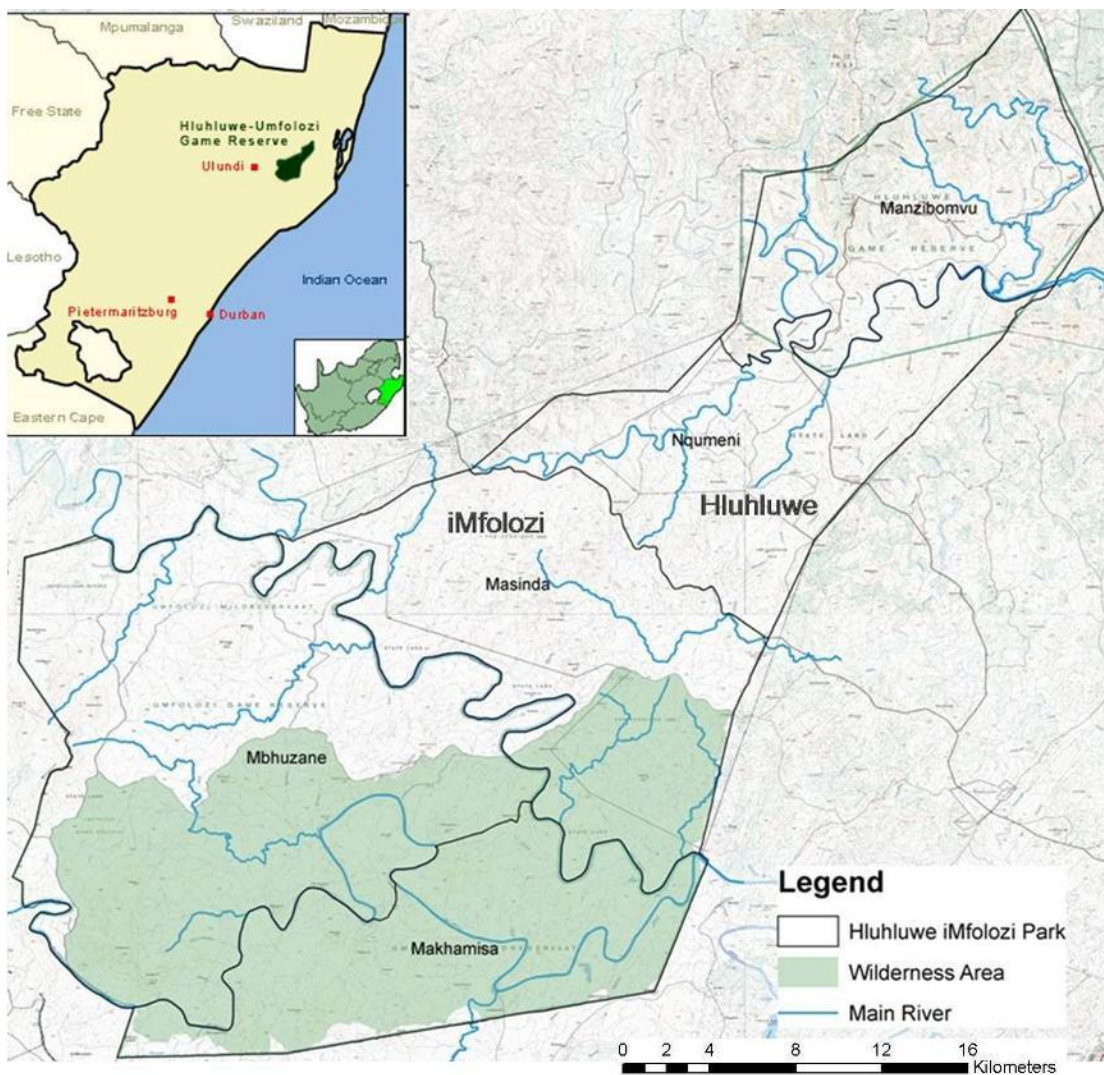


Figure 1. Geographical location of iMfolozi Game Reserve within South Africa (EKZNW, 2008).

Approximately one third of iMfolozi is designated as a wilderness area. This area is devoid of human infrastructure such as roads and camps and extends to the southern boundary of iMfolozi. It is a key feature to be taken into consideration by iMfolozi law enforcement roleplayers when strategizing and implementing operations to counter rhinoceros poaching. iMfolozi is linked to Hluhluwe Game Reserve by a road which bisects the Hluhluwe – iMfolozi Park which is therefore a continuous landmass available for rhinoceros conservation. This road is however accessible to the public on a continual basis and also presents a key feature to be taken into consideration by conservation law enforcement roleplayers working towards efficient rhinoceros security.

1.3 Motivation

The exponential rise in rhinoceros deaths through poaching continues, both nationally and within iMfolozi Game Reserve. Since January 2008 rhinoceros poaching has increased in an unprecedented fashion as shown in Figure 2.

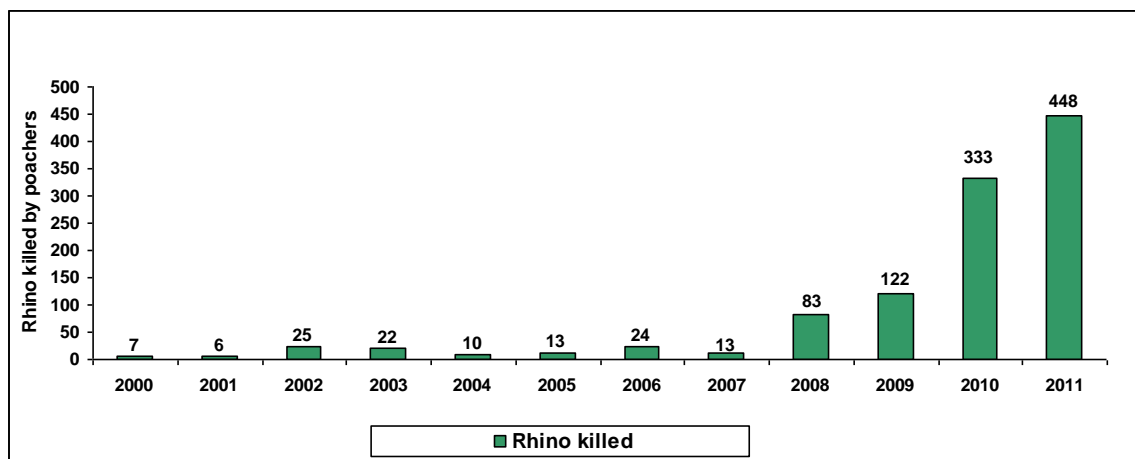


Figure 2. National rhinoceros poaching statistics 2011. (after Department of Environmental Affairs, 2011).

At the end of 2011, the rhinoceros death toll due to poaching was 448, according to EKZNW, (2012b). The wider system, within which the iMfolozi anti-poaching teams are operating, as well as the internal dynamic within those teams, needs

to be understood due to the researcher's belief that the criminal syndicates are learning faster than these teams. As Hockings, *et al.* (1999, p5), state "a well designed protected area with plenty of trained and dedicated staff will not be achieving its objectives if, for example, poachers are depleting species". The question then is how well disposed are the conservation law enforcement roleplayers to learning towards meeting the rhinoceros poaching threat? The motivation for this study is to gain some knowledge of the thinking and acting capacities of the law enforcement roleplayers, within EKZNW at iMfolozi. Knowledge of these thinking and acting capacities, assessed in terms of an impression of the roleplayers willingness and ability to engage in social learning actions, will enable EKZNW to work on what capacities need to be developed. It is reasoned that if the roleplayers show potential of the capabilities of transforming their perceptions, transforming their wills and then transforming their actions, then learning will, potentially, be healthy. On the other hand if the roleplayers generally show the converse of these tendencies, then the required learning is very unlikely to take place. The strategic imperative for EKZNW roleplayers would be to strengthen the capacities of transforming their perceptions, transforming their wills and then transforming their actions to continually deepen their understanding of the complex system in which the rhinoceros poaching matters are embedded.

1.4 Research Problem

The problem that this research has addressed is how to assess the potential for deeper understanding of the complex rhinoceros poaching and anti-poaching system by significant roleplayers within EKZNW. At present EKZNW appears to be focused exclusively on paradigms of reactive law enforcement thinking, which are governed by established mental models. The Standard Operating Procedures that have been documented to detail EKZNW's reaction to a rhinoceros poaching incident contain evidence of such mental models. The statistics of rhinoceros kills, presented in Figure 2 make it evident that on their own, the execution of these Standard Operating Procedures will not suffice. It is

argued that effective operating procedures must engender the need for the roleplayers to move from a reactive methodology to a proactive one. In attempting to be proactive, the law enforcement roleplayers who are all anti – poaching officials, need to understand the systems and mental models at work and hence anticipate the next moves that criminals might make. A deeper understanding of what is going on would lead to more intuitive, wiser and effective anticipatory actions. EKZNW has established behaviors which are governed largely by instituted habits. In so doing EKZNW, along with other roleplayers, appears to not be taking cognizance of the larger whole system and the potential responses that such expanded insights might bring. This reality or larger picture which is as yet not well understood has seen rhinoceros poaching globally, continentally and provincially rise to a tempo that demands that law enforcement roleplayers and others move towards an understanding of a new social learning dynamic. The problem as defined for this study is that the human systems that should be protecting these rhinoceros's are so poorly understood by the law enforcement role players themselves that they are ineffective, as evidenced by the rhinoceros kill statistics.

1.5 Research Aim and Objectives

The aim of this research is to investigate the appropriateness of a social learning theory, in the light of the iMfolozi case, that will enable future anti-poaching efforts to be informed by a deeper understanding, which in turn is able to guide more appropriate and effective responses, than is currently the case.

This research has 3 Objectives:-

- 1 To review selected literature that surrounds and supports Scharmer's Theory U.
- 2 To assess the extent to which key roleplayers have, unknowingly and instinctively, been operating in accordance with Theory U type processes.
3. To explore whether key roleplayers have the potential to engage in dynamic social learning, as framed by the Theory U paradigm.

1.6 Methods

Qualitative techniques were used within a case study approach in this research. Many of the facts of the case were well known to the researcher who is a member of the anti-poaching team in the iMfolozi Game Reserve.

The method adopted to achieve Objective 1 was to thoroughly review the applicable literature and engage in multiple discussions with the research project supervisor and also with a confidential community of practice colleague. Through this iterative dialogic process of conversation, reading and reflection, the researcher prepared new lenses for his mind in assimilating and reflecting upon the information uncovered, as this research unfolded.

The method employed to achieve Objective 2 was to conduct a series of semi – structured interviews with key role players within the iMfolozi Game Reserve. The new insights into the problem, developed by the knowledge and new mental lenses gained in pursuing Objective 1 were used to draft questions for these interviews. The representative sample of Interviewees was purposive and was chosen from those key staff positions in iMfolozi and one key staff position not part of the internal iMfolozi law enforcement team but who, through official mandate from the EKZNW executive, is tasked to assist with rhinoceros anti-poaching in the iMfolozi Game Reserve.

Objective 3 was addressed by sifting through the interview responses whilst consciously applying the new mental lenses, of Theory U (Scharmer, 2009b) to enable the researcher to characterize and interpret the perspectives and systemic links that were emerging.

1.6.1 Analysis

The analysis produced within this study proved to highlight some intuitive views held by the researcher as well as assisting the researcher to articulate observations made regarding law enforcement roleplayers who are anti–

poaching officials within iMfolozi. These observations concerned their inherent capability to transform their perceptions and wills regarding rhinoceros anti-poaching. The complexity of modern rhinoceros poaching and how to counter the threats of poaching were expounded upon by the interviewees. The responses of the interviewees were interpreted and then articulated by the researcher using the 'new lenses' of Theory U. These new and deeper understandings were then used to gauge the two attributes of willingness and capability, to engage, in the respective core capacities of the Theory U movement.

1.7 Sequence of Chapters

There are five chapters in this mini-dissertation. In Chapter 2 a literature review is presented. The case study nature of this research influenced the review to commence with literature about iMfolozi Game Reserve. The focus of the first part of the review was on the social aspects associated with rhinoceros security both from an external stakeholder perspective as well as an internal EKZNW organizational perspective. Chapter 2 also provides an overview of the rhinoceros poaching situation including countermeasures to date and the roleplayers involved. An outcome of the first part of the review is a need for EKZNW to engage in social learning processes. The social learning Theory U is therefore -introduced and reviewed in appropriate detail.

In Chapter 3 the research methods used and the rationale behind them are explained. The sampling techniques in this qualitative methodology and the mitigating actions taken to maintain as much objectivity as possible, throughout the study, are discussed.

Chapter 4 provides an analysis of the results of the research. The detailed analyses of each interview, seen through mental lenses of Theory U are presented in Chapter 4 and in the accompanying Appendix C. Thinking and actions were analyzed and described in terms of the capacities of the U and the tendencies of the absencing cycle of Scharmer's Theory U. The interview results

are analyzed to identify emergent themes as they presented themselves from the information gathered. These themes then provide an indication as to whether key anti-poaching officials in iMfolozi Game Reserve are willing and able to participate in dynamic social learning processes. The potential to engage in dynamic social learning as framed by the Theory U paradigm was thus gauged for each of the 5 roleplayers, who are all anti-poaching officials, interviewed.

Chapter 5 presents discussions on the research conducted and the results obtained. It indicates, through discussion, the possibility of an established absencing cycle. Findings are discussed and conclusions formed on the significance of these findings. Recommendations for future research on this topic are also presented.

Chapter 2. Literature Review

In this Chapter 2, a review of the literature relevant to the study is presented. In addition, because of the case study nature of this research, a review is presented of the literature that is pertinent to rhinoceros poaching issues and challenges in the iMfolozi Game Reserve

2.1 Description of iMfolozi

iMfolozi Game Reserve lies some 20km northwest of Mtubatuba, at the junction of the coastal plain and the foothills of the KwaZulu-Natal interior. It is surrounded by a well constructed boundary fence on its eastern, southern and western boundaries respectively. The northern boundary of the reserve is the corridor road (R618) which is 18km long and is shared with Hluhluwe Game Reserve and therefore is not fenced. iMfolozi has a total hectare area of 62,744 hectares of which a third is managed as wilderness. There are three Sections in iMfolozi Game Reserve, Masinda Section in the east, Mbhuzane Section in the west and Makhamisa Section in the south, (EKZNW, 2011). The length of the reserve boundary is 92.3 km's and proves to be difficult to police due to the hilly terrain, steep sided and thickly wooded valleys and wide river crossings. There are many easy access points into and out of the reserve.

2.1.1 Description of Communities Around iMfolozi Game Reserve

iMfolozi Game Reserve is surrounded by seven Tribal Authorities, namely, Mandhlakazi, Zungu, Ximba, Obuka, Somopo, Mhlana and Mpukunyoni, (EKZNW, 2008). The tribal authorities have different perceptions about role of the iMfolozi Game Reserve including the perceived obligation of employment and job creation. Through observation by iMfolozi management staff, a perception has arisen that employment provision by EKZNW is a high expectation for local communities in the minds of the Tribal Authorities. There are Land Restitution

Agreements in place that were set up between the Department of Environmental Affairs and Tourism and the Department of Land Affairs. Social learning by roleplayers on either side of the fence would enable a contextualisation of these perceptions and a way forward to address these perceptions constructively. However, currently, Kumar's (2009) findings confirm the popular belief that unemployment remains unacceptably high. Related to this there has been a growth in casualised, sub-contracted and outsourced labour within the iMfolozi management budget capability. "The current unemployment rate in South Africa has increased to 23% based on the narrow definition of unemployment. However, based on the wide or extended definition of unemployment this figure is closer to 50%" (Kumar, 2009, p28). This factor has a direct bearing on how the iMfolozi Game Reserve is affected by poaching from the community. Wild animal products such as bushmeat as well as a multitude of animal parts are utilised for the commercial '*muti*' trade. Specialised and rare parts such as vulture heads, pangolin scales and rhinoceros horn have a very high monetary value – a single rhinoceros horn of average size representing more than the average annual income of an individual.

Liaison forums and contact with the Tribal Authorities have been established, including education, tourism and community development partnerships with the game reserve. An understanding of social learning would aid in maximum benefit arising from these initiatives. There is however the historical stigma of displacement which has necessitated careful and tactful building of a new relationship of trust. This has been deemed to be addressed through Land Restitution Agreements that were set up between the Department of Environmental Affairs and Tourism and the Department of Land Affairs as indicated above. Although community displacement was not the policy of the conservation authorities, due to their representation of the state in these rural areas, the onus has fallen on them to counter the mistrust that resulted. Vigorous attempts are being made by EKZNW to include all the communities surrounding iMfolozi Game Reserve, to contribute to the efforts of nature conservation, and to develop opportunities and linkages, (EKZNW, 2008). In

addition to this, conservation officials are trying to foster a feeling of interdependence between the communities and the reserve and to develop and grow a relationship of trust. This will, however, take time. This effort is spearheaded by co-management agreements between successful land claimants but also includes communities who have not been awarded land claim judgements as indicated in the Memorandum of Agreement between DEAT and DLA Ministers (2007) and the Framework Agreement for the Settlement of the Hluhluwe Corridor Game Reserve Land Claim (2007). If a dynamic of social learning was allowed to expand and include all these communities, positive outcomes could be expected within their relationship with iMfolozi Game Reserve officials.

The needs of local communities for natural resources obtained from the game reserve could possibly exceed sustainable levels in the future and this is a challenge that iMfolozi management staff are going to need to rise to. Since not all the demands can be met, EKZNW is prepared to assist local communities by facilitating access to certain resources. An understanding of social learning dynamics could, if embraced, see relationships forming with other governmental departments such as the Human Settlements Department, Local Economic Development and the Department of Agriculture. On a micro scale, projects such as water projects, the training of local community members to sell and market crafts and to become nature guides, gardening projects, school building projects, the use of natural resources for medicinal purposes, and sanitation projects, do exist. However, a coordinated inter-departmental approach grounded in an understanding of social learning dynamics does not exist.

It is anticipated that more neighbour relations projects will be sought by the surrounding communities. Many of these projects will take the form of tourism joint ventures, and indeed the pending opening of Ensilweni Bush Lodge is an example of that.

The efficacy of the law enforcement effort in iMfolozi Game Reserve is threatened by a number of community relationship factors. Land claim actions by some Tribal Authorities could severely influence the course of nature conservation, resulting in the loss of biodiversity and revenue from tourists. Currently there are two Department of Land Affairs and Department of Environmental Affairs land claims in need of co-management agreements that now, after more than 5 years, these have been brought to fruition and although progress is slow, it is moving forward. As such, surrounding communities need to be incorporated in decision making and through skilful guidance, a relationship of trust built from top to bottom and bottom to top simultaneously within the communication between the relevant external community roleplayers and EKZNW. Through development of an understanding of social learning, EKZNW and local communities would be informed of the values associated with nature conservation and tourism and every possible opportunity should be taken to identify business ventures that complement nature conservation and involve active local community participation, ensuring that sustainable benefits accrue to local communities. iMfolozi Game Reserve is a designated District Management Area, (KZDMA 27) it is therefore jointly managed by EKZNW and the uMkhanyakude District Municipality. EKZNW is responsible for conservation management and tourism while uMkhanyakude is responsible for social services within the area, (EKZNW, 2008).

2.2 Projected Key Outcomes of the EKZNW Core Values

EKZNW as the official nature conservation authority for the province of KwaZulu Natal commenced with a five year strategy in 2009, (EKZNW, 2009). By 2014, EKZNW must deliver on the objectives as laid out by the strategy. This will necessitate a change in operational thinking especially in the context of its approach to the rhinoceros poaching problem and subsequent law enforcement and security systems currently used to counter this problem. An understanding of the social learning dynamic would greatly enhance this. Wheatley (2006) explains that an organisation seeking to learn to be adaptable and process

information at ever deepening levels needs to open itself up in numerous ways. EKZNW's relationship to information, especially perspectives that are new and possibly disconcerting is vitally important.

A set of Strategic Objectives were adopted by the EKZNW Board on 12 February 2009. According to the Five Year Strategic Plan and Performance Plan 2009-2014, these objectives were aligned with the Republic of South Africa government priorities, (EKZNW, 2009, p7). The relevance of this information to this mini-dissertation is that many of the strategic actions and outcomes listed below will require the social learning and the core capacities of the Theory U Presencing Cycle to be embraced.

Included within these Government Outcomes are the following:

“Government Outcome 5: A skilled and capable workforce to support an inclusive growth path. To be achieved by *inter alia*:

- Attract and retain the best Human Capital
- Create a culture of learning and development of employees
- Implement best practices in managing wellness and related activities
- Increase employee satisfaction

Government Outcome 10: Protect and enhance environmental assets and natural resources. To be achieved by:

- Conserving the indigenous biodiversity of KZN for the benefit of present and future generations.

Government Outcome 12: An efficient, effective and development orientated public service and an empowered, fair and inclusive citizenship. To be achieved by *inter alia*:

- creating synergies across business and support units;
- implementing new services and products;
- integrating information management systems;
- managing organizational risks;
- develop and implement a knowledgeable management system;
- optimize strategic alliances with relevant stakeholders”. (Ezemvelo Strategy, 2012a, p6)

EKZNW needs to achieve the above within the ambit of its Core Values, which are:-

“Accountability – to involve stakeholders in the organisation’s activities with a culture of openness and be answerable for the outcomes of actions and activities

Commitment – at all times to undertake activities with passion, loyalty and dedication

Excellence – to be a progressive organisation applying best practices to achieve the highest quality standards

Innovation – to be an adaptable organisation that embraces the culture of creativity and learning

Integrity – to at all times act morally, ethically and with honesty

Productivity – to undertake to produce results timorously, efficiently and effectively.

Respect – to treat stakeholders with patience, politeness and acknowledge and value their rights and those of the environment.

Team work – work together to achieve the vision through goals.” (EKZNW, 2009, p33).

The government outcomes as well as the core values stipulated above are indicative of a recognized need for behavior regulation and change within EKZNW. An individual’s as well as an organisation’s behavior will be dependant on the beliefs held by both parties as to their function within rhinoceros anti-poaching in iMfolozi. An individual as well as an organisation’s thinking and

actions will be determined by their willingness and ability to transform their perceptions, wills and actions. Through the above mentioned document, EKZNW has committed itself to progressive and positive change. This commitment would be commensurate with incorporating these outcomes and core values within the Presencing Cycle of Theory U. Through development of an understanding of social learning, EKZNW will be able to verify whether the organisation has in fact achieved what they set out to do or whether they have unknowingly fallen into an absencing cycle (as indicated in Section 2.7.3) which would then render these outcomes and core values useless.

2.3 Overview of Rhinoceros Poaching

According to Milledge (2007) the illegal killing of rhinos for horn trade to the Middle and Far East markets has long posed a serious threat to both African rhinoceros species. He goes on to explain that the volume of horn entering illegal trade from Africa has increased significantly since 2000. The advancement of rhinoceros anti-poaching in conservation countermeasures in what Senge *et al.* (2005) refers to as the collective level of awareness have not been commensurate with the threat.

In spite of the ban on the importing of rhinoceros horn, Yemen's government has not yet managed to stop the rhinoceros horn trade in that country, Martin and Vigne (2008). On the African continent and in South Africa the reported number of rhinoceroses poached has increased from 13 in 2007 country wide to 83 in 2008, 122 in 2009, 333 in 2010 and as of middle November 2011, 370 rhino poached, (Brooks, 2004). This also manifests itself in iMfolozi Game Reserve as shown in Figure 3.

iMfolozi Game Reserve - Rhino Security Incidents (Jan 2008 - Sep 2011)

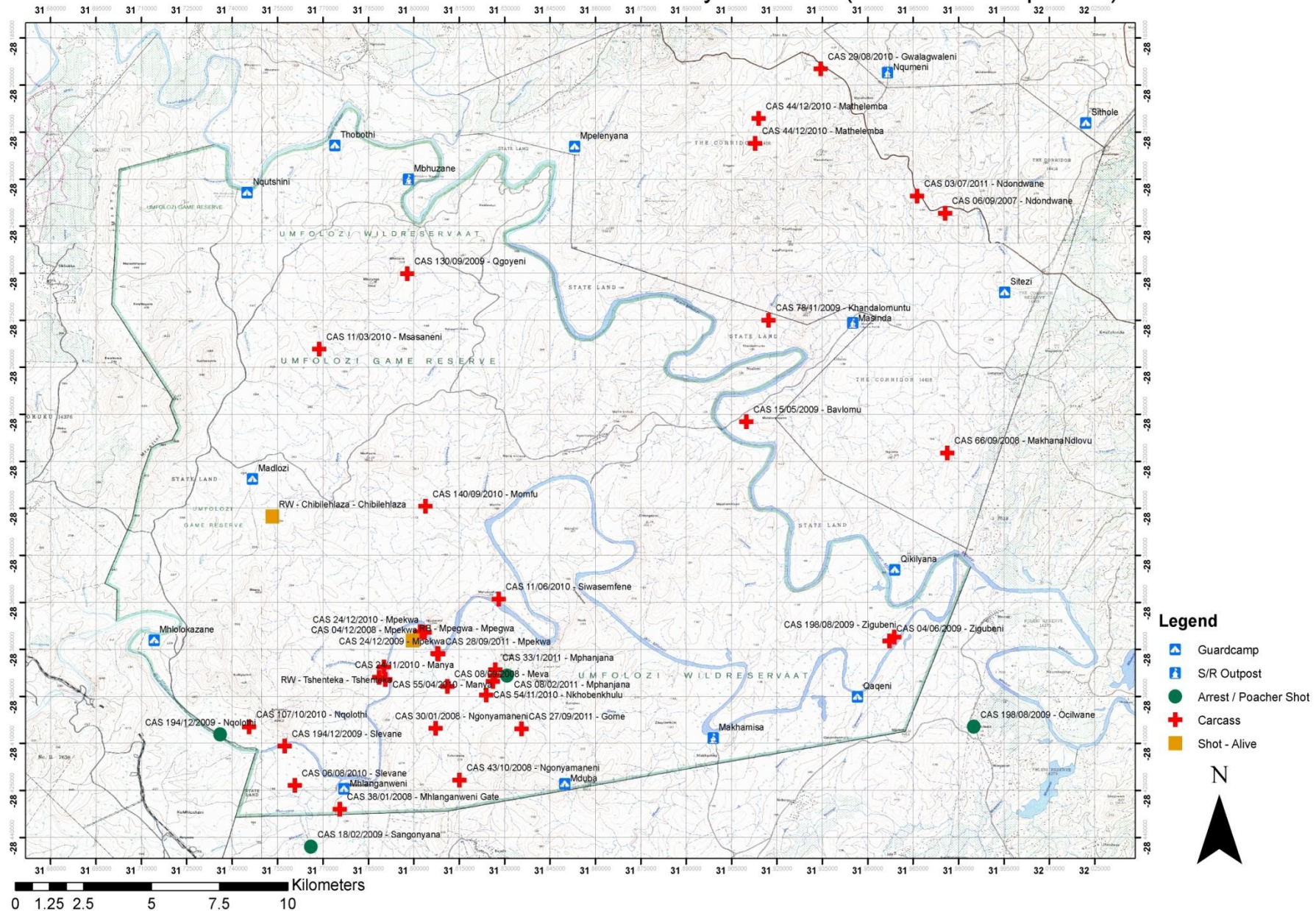


Figure 3. iMfolozi Game Reserve – Rhinoceros Security Incidents (January 2008 – September 2011). (Munro and Clinning, 2011)

Hilton-Taylor (2000) and Broad (2008) also reported an increased tally of large mammal species for example rhinoceros and elephant that are increasingly threatened. Operational constraints as experienced by law enforcement officials and the worldwide economic depression, Arcese *et al.* (1995), allows for the fueling of the demand for poaching. According to Coetzee (2010), for a rhinoceros horn to get from South Africa to the end user in China or Vietnam, a number of people must be involved which then constitutes a Trans-National Crime which is a higher dimension of organized crime. This constitutes a complexity that is multi-faceted.

iMfolozi Game Reserve currently faces some unique challenges for example extremely high rhinoceros population densities, increasing rural populations on all its boundaries and law enforcement staff that are becoming increasingly influenced by the dictates of Organised Labor Unions. Like other protected areas it needs to address a diversification of biological, social and economic dangers (Wells *et al.*, 1992). According to Goodman (2002), it also is a part of one of the densest Meta populations of white rhinoceros in the world. As explained by Heinen (1996) and Struhsaker *et al.* (2005), iMfolozi Game Reserve is synonymous with other protected areas in that a flourishing rural population exists on its boundaries and the deterioration of biodiversity external to the boundary fence is placing more pressure on iMfolozi for its natural resources. This results in contention between iMfolozi Game Reserve Authorities and the communities on their borders.

According to Smith *et al.* (2003), exponential growth due to challenges with inadequate governance and retarded economic growth coupled with the global economic restriction is affecting the local communities negatively. Furthermore, Berkmuller (1992) goes on to explain that communities continue to be sensitive to apprehensions; and that many communities are convinced that the game reserve management objectives are contrary to their local needs.

2.4 Counter Measures to Date

Milledge (2007) explains that illegal buying and selling, smuggling and many more activities form part of the problem. He further explains that two important factors limiting management effectiveness are the increased levels of criminal organization and a breakdown of socio-economic stability and governance.

Coetzee (2010, p33) explains that the poaching of rhinoceros for their horn constitutes a Trans-National Crime; “From beginning to end, several criminal activities like illegal hunting / poaching, money laundering, permit fraud, theft and robbery are not contained in their entirety within the country. On the African continent counter measures to date have been to implement measures along the trade chain, ranging from intensive in situ protection to promoting substitutes in consumer nations”. According to Milledge (2007), the Convention for the International Trade in Endangered Species (CITES) has formulated decisions that have played a part in addressing illegal activities e.g. National and international trade restrictions) and in helping to provide economic incentives for further investment in rhinoceros conservation.

“In iMfolozi, countermeasures have focused predominantly on paramilitary law enforcement because this is recognized as a primary mechanism to facilitate the functionality of game reserves” (Brockelman *et al.*, 2002). Law enforcement patrols in particular are conducted through joint planning between the reserve leadership element and patrol staff in the field. At the monthly operational meetings, the digital map for the previous month is produced and shown to all the patrol staff as well the incidents from the previous month. By looking at the trends of previous incursions and the digital map, direction is given by the leadership element i.e. Section Ranger, Corporal and Lance Corporals to Field Rangers as to which areas need to be concentrated on for security purposes. The security planning system retains fluidity to utilize new information (from informers or other law enforcement agencies) on an ongoing basis; patrols can then be changed to counter any new threats. Leader-Williams *et al.* (1990), Oates (1997), Myers *et al.* (2000), Bruner *et al.* (2001) and Struhsaker *et al.* (2005) all explain that regardless of the fact that game reserves such as iMfolozi which are fenced,

biologically monitored, patrolled, and evaluated, they are one of the most appropriate and capable means to conserve biodiversity. There have not been substantial bids to quantify and assess the cogency of this approach.

2.5 Stakeholders Relevant to Implementing Law Enforcement Measures in iMfolozi Game Reserve

As explained by Van der Westhuisen (2007), law enforcement has traditionally played a major role in protected area management, especially in Southern Africa. He also states “that it is used as an important strategy to control illegal off take of wildlife resources”, (Van der Westhuisen, 2007, pg3). Formal roleplayers who currently have a direct influence in the rhinoceros anti-poaching law enforcement in iMfolozi Game Reserve include the South African Police Force, Organized Crime & Investigation Unit of Richardsbay, relevant South African Police Force Uniform Branches, and relevant members of the National Prosecuting Authority and law enforcement and investigation staff of EKZNW.

2.6 Factors that Inhibit the Efficacy of Counter-Poaching Measures by the Current Roleplayers in iMfolozi Game Reserve

Conway *et al.* (1992), indicate that like other areas of criminal activity, the initiative is in the hands of the poacher. This is true of virtually all criminal activity. It is the offender who decides, how, when, and where, to strike, often after months of probing, planning and preparation. The law enforcement systems in iMfolozi Game Reserve have not changed radically for four decades but the advancement of attainable cellular technology has. The current system has its critical values in terms of biological observation and monitoring and ground cover but in isolation, it is inadequate in addressing modern poaching threats.

The outcome of this is that, poaching of wildlife from iMfolozi Game Reserve is not uniformly encountered throughout the reserve with some areas being predictable “hot spots” while other areas encounter ad hoc poaching incursions.

The burden of this poaching could be based on the peculiarities of the reserve. These peculiarities will be summarized by such factors as geographical layout, situation of rural communities, infrastructure such as roads and criminal activity in terms of internal corruption and complicity in the law enforcement entities.

According to Diamond (1975), the premise, that each protected area has its own peculiarities with regards to anti-poaching, when applied to game reserves is assumed relevant whenever they have been isolated from other protected areas. This island effect has brought to the fore, the characterization of a minimum size for protected areas which is necessary to maintain feasible populations of species. The minimum feasible population projections are established on the risk of extinction. Other factors compounding the loss of efficacy of the current law enforcement roleplayers are the effects of Organized Labor on manpower. These effects are felt through reduced hours in a working week, the loss of presence in the field, Hughes (2002), the advancement of cellular technology Michler (2008), and the misuse of the Anti-Poaching Unit.

As EKZNW has been embracing the challenge of dealing with rhinoceros poaching it has become most apparent that the issue of rhinoceros poaching in both the reserve and global context is radically complex. This complexity demands a deepening of individual and collective awareness, as explained by Senge *et al.* (2005), to contemplate fully an understanding of the complexity of the scourge.

Whilst reviewing of the context within which iMfolozi law enforcement roleplayers who are all anti – poaching officials are currently applying themselves to the rhinoceros anti-poaching challenges, it is becoming apparent that the way they are applying themselves, is in need of change. They need to analyze their thinking – and ask themselves “is there something about my thinking that is preventing me from making real differences?” This need has been identified as being fundamentally “mental” or a “mindset shift” in dealing with ever increasing complexity. Taking this into consideration, this study explores both the willingness and capability of key law enforcement roleplayers, who are all anti –

poaching officials within iMfolozi, to engage in a social learning model such as framed by Theory U. The evidence of the rhinoceros kills, lends credence to the theory that the anti-poaching teams and the wider system within which they conduct their actions are facing a situation in which the poachers and the rest of the criminal networks, are learning faster than the iMfolozi law enforcement roleplayers are.

2.7 Social Learning Frameworks

2.7.1 Rationale for the Need to Engage in a Social Learning Framework

As explained in Section 1.1, there is a need for increased levels of individual and collective learning in iMfolozi with regards to rhinoceros law enforcement activities. It is therefore necessary to gain an understanding of what such learning is and what potential exists within anti-poaching roleplayers in iMfolozi, who are all anti – poaching officials to better understanding a social learning dynamic.

Social learning is sometimes confused with notions of participation, according to Reed *et al.* (2010), who go on to stress that within this notion there is often scant differentiation between individual and wider learning. The context, within which this study is conducted, is guided by the principle that the conservation law enforcement roleplayers within iMfolozi are deployed in field operations and have to adapt to the specific challenges facing them within this geographical area. EKZNW, as an organisation, has generic responses to the threat of rhinoceros poaching and these are recorded in the Standard Operating Procedures. (iMfolozi Game Reserve Wildlife Protection Management Strategy, 2012). The individual roleplayers of iMfolozi are however tasked with addressing the specifics with regards to countering the threats of rhinoceros poaching in their specific area. The rationale for the need to engage in a social learning framework in this study has been guided by the explanation by Wenger (2009, p2) that “innovative capacity and the spread of innovation are a property of social system

that depends on its learning capacity". Furthermore, Reed *et al.* (2010), argue that there is often confusion between the concept of social learning and its potential outcomes. According to Fazey and Marton (2002), an individual essentially learns through a degree of change in that person's understanding of a complex problem and their relationship to it. According to Reed *et al.* (2010) this learning that occurs can take place at surface level or can involve deeper conceptual change. Armitage *et al.* (2008), go on to explain that a lack in conceptual clarity may limit individuals and organisations in their ability to understand the actual functioning of social learning. Such learning would include linking causes and effects; assessing whether learning has occurred, and if so, what kind of learning has taken place, to what extent, between whom, when and how. Reed *et al.* (2010), explain that for social learning to occur, there needs to be a change in understanding in the roleplayers involved and that this change must be demonstrated. Wildemeersch (2007) points out that the organisation responsible for bringing the different knowledge holders together influences the subsequent learning outcomes; this is a pertinent consideration in the context of this mini-dissertation. Reed *et al.* (2010, p5), summarize social learning as learning that must:-

1. "Demonstrate that a change in understanding has taken place in the individuals involved. This may be at a surface level (e.g. via the recall of new information) or deeper levels (e.g. demonstrated by change in attitudes, world views or epistemological beliefs);
2. Go beyond the individual to become situated within wider social units or communities of practice within society; and
3. Occur through social interactions and processes between actors within a social network, either through direct interaction (e.g. conversation) or through other media (e.g. mass media, telephone, or Web 2.0 applications)".

This rhinoceros anti-poaching study embraces the above clarification as to what social learning actually is. Furthermore it is guided by Reed *et al.* (2010), who explain that the role of power and scale in influencing learning outcomes are

particularly important when assessing the extent to which learning has taken place as a result of social interaction.

According to Senge *et al.* (2005), all learning involves a continuous, iterative interplay between thinking and doing. They go on to explain that learning is about how individuals interact in the world and what types of capacities inform and are developed from those interactions. They explain that different depths of awareness and the resultant source of action denote the level of learning. There is an obvious need to deepen the learning associated with rhinoceros anti-poaching activities and the theories which inform these activities. In the arena of modern day rhinoceros anti-poaching, not only does there need to be a deepening of individual learning but also a collective learning and understanding that needs to be deepened. Such understanding will come from the iterative interplay between thinking and doing. The research of this thesis will attempt to assess the degree to which conservation law enforcement roleplayers are both willing and capable to deepen their level of understanding within the context of countering rhinoceros poaching in iMfolozi Game Reserve. Deeper thinking requires an obligation to take some time to explore, digest and focus thoughts before launching into action. As more time is taken to explore and focus, so the thinking deepens and a clearer picture of what action needs to be taken, emerges. Scharmer (2009b) coined the term “Presencing” to refer to this phenomenon of deepening understanding through thinking and doing. Conversely, there is another process which Scharmer (2009b) refers to as “Absencing” which is destructive and is the antithesis of “Presencing”.

Figure 4 is a metaphorical description of how increased leverage and opportunity for learning takes place. The metaphor of an iceberg is used to illustrate how superficial actions would be if they focused in reaction to events only. Opportunity for learning about how to best address the rhinoceros poaching threat in iMfolozi will be achieved by anticipating what could take place through the analyses of trends and patterns, what systemic structures exist and how do they influence rhinoceros anti-poaching through analyzing what forces contribute to these patterns and trends. Real transformation and hence real improvements

in law enforcement efficacy is then achieved by self-regulating and self-analyzing how conservation law enforcement roleplayers who are all anti – poaching officials think, and what about their thinking needs to change.

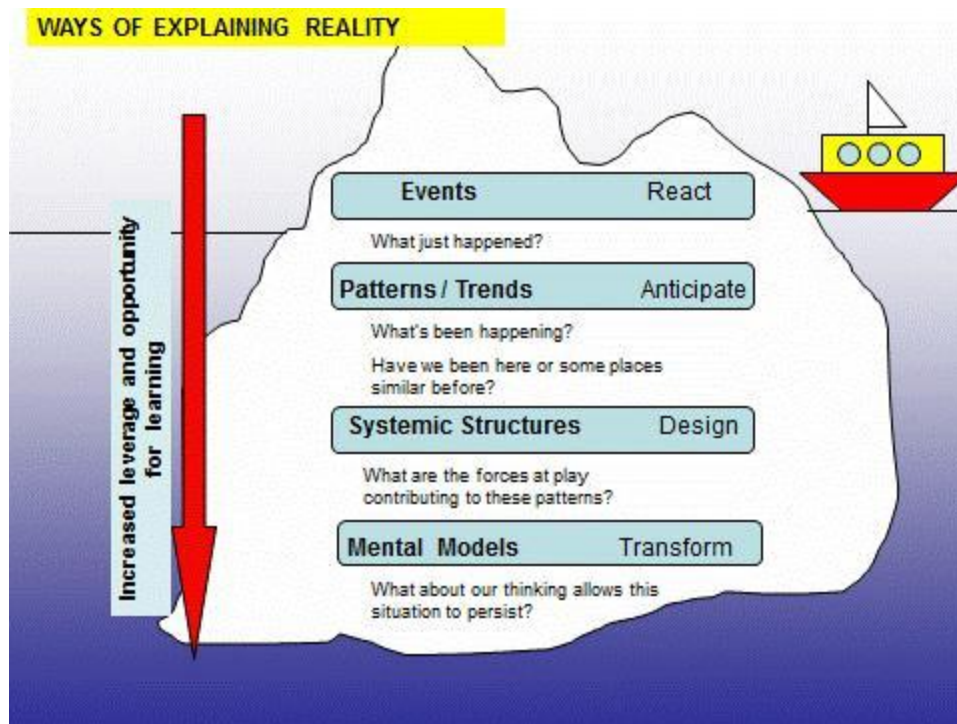


Figure 4. Ways of explaining reality. (after Senge *et al.*, 2008, p174)

Mental models and firmly held beliefs can be subtle. The iceberg analogy shows how increased leverage and opportunity for learning can be achieved and is necessary for deeper thinking to occur. Rhinoceros anti-poaching operations and strategizing cannot efficiently curb the loss of rhinoceros by merely reacting to events such as incursions by rhinoceros poachers or 'leaking' of vital strategic information. Conservationists would benefit from constructively questioning their own behaviors. A question they may ask is "is there anything about our individual or collective thinking in iMfolozi that allows the rhinoceros poaching situation to persist as it is?" The stage of learning at which mental models begin to change is called transformation. (Senge *et al.*, 2008) explain that it is a transformation from reacting to events which are perceived as outside of us, to a stage where we begin to see ourselves (our thinking and actions), as part of the problem. Much

of the learning and change which is required in the anti-poaching realm is change both of an individual and a collective nature.

Senge *et al.* (1995) explain the need for and the depth of this change in the extract below. It is acknowledged that this extract is long but it is so pertinent to the essence of what is required in the anti-poaching realm that it has been included here. *“Throughout human history the critical threats to survival came as dramatic external events: floods, earthquakes, attacks by wild animals or rival tribes, fire. Today, the critical threats are slow, gradual processes to which we have contributed ourselves; environmental destruction, the global arms race, the decay of educational, family and community structures. These types of problems cannot be understood, given our conventional ways of thinking. There is no beast to slay, no villain to vanquish, no one to blame – just a need to think differently and to understand the underlying patterns of dependency. Individual change is vital, but not sufficient. If we are going to address these conditions in any significant way, it will have to be at the level of collective thinking and understanding”.* (Senge *et al.*, 1995, p12)

The above then provides a lead in to focus more closely on the dynamic interaction between thinking and action that constitutes social learning. In this mini-dissertation the Theory U model of Scharmer (2009b) has been selected after careful reflection and the short review below explains this reflection in the light of Theory U.

2.7.2 The Theory U model

The systems currently set in place in iMfolozi were created by thinking about a particular problem (rhinoceros poaching) at a particular time. Systems were then put in place, as explained in Section 2.6. These systems – were the ‘doing’ or actions that resulted from the thinking at that time. The context of these systems has changed. Rhinoceros poaching has evolved with new technologies such as cellphone’s as well as on many other fronts, yet the systems set in place by law enforcement roleplayers have remained largely static. Anti-poaching role players doggedly adhere to the systems created - they ‘do the right thing’ but these

systems have not been analyzed in current times. Perhaps ‘doing the right thing’ could be resulting in the wrong actions being taken as new ideas and deeper understanding should lead to transformed actions and more effective overall law enforcement. As indicated in Section 2.3, rhinoceros poaching has recently evolved into something that is increasingly complex and multi-faceted. The statistics depicted in Figure 2 show the dramatic increase in poaching in 2008 due to the changes in modus operandi and intensity of the poachers. Systems now in use in iMfolozi are outdated but never the less well rehearsed and implemented. This phenomenon will be investigated through dialogue with roleplayers and in reflections and conversations as this research unfolds Senge *et al.* (2005; p10) explain that in many situations, individuals and groups in the same thinking and the same doing, over and over again as they “download mental models” (Senge *et al.*, 2005, p10) , that is seeing events with unchanging mental lenses and “re-enact habits” (Senge *et al.*, 2005, p10). This behavioral phenomenon is depicted in Figure 5. In such situations learning does not happen and generally success is illusive.

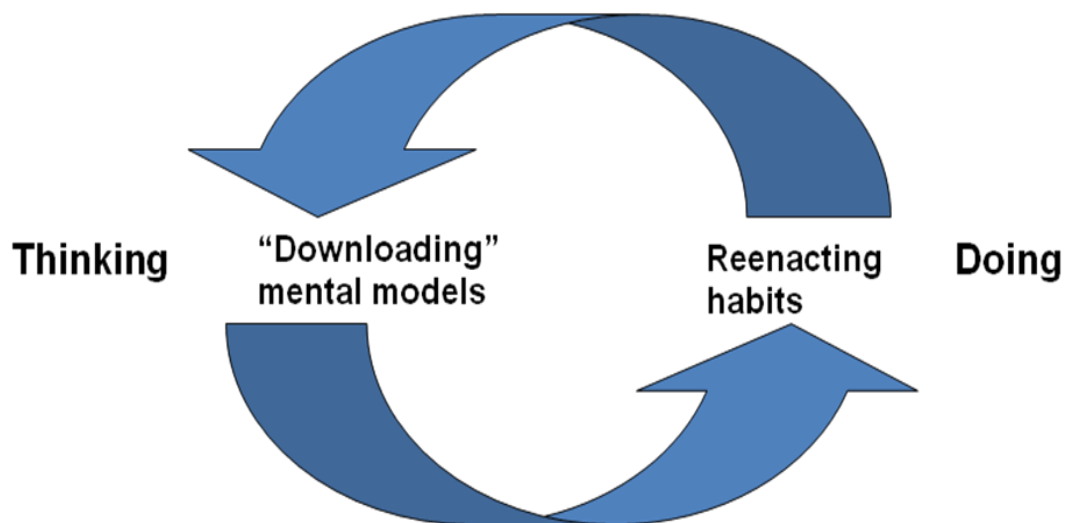


Figure 5. The process of reactive learning (after Senge *et al.*, 2005, p10)

As thinking and behaviors become progressively more entrenched, it becomes more difficult to break away from an established view. The process of Absencing as explained by Scharmer (2009b) and depicted in Figure 8 has its origin in this

phenomenon. The thinking determines the doing, if the thinking is habitual, entrenched, stuck within one particular view and “always right” then the actions will be hampered, hamstrung and inflexible to deal with the ever increasing complexity, that is modern day rhinoceros poaching. The challenge now is that a ‘recipe’ for countering rhinoceros poaching that may have worked six or more years ago as shown in Figure 2 will no longer be effective as the ‘ingredients’ have changed. The rapidly advancing technological aspects of rhinoceros poaching as well as the changes within EKZNW necessitate an appreciation for what Senge *et al.* (2005) call a “depth of awareness and the consequent source of action” (Senge *et al.*, 2005, p11). A deeper understanding of the systems at play would lead to more intuitive anticipatory actions. According to Senge *et al.* (2005), the depth of awareness or deeper levels of thinking necessary will come about as there is an increasing awareness of the whole. Law enforcement officials would likely benefit from viewing rhinoceros poaching as a whole, in all its complexities and forms. If this was done, it would probably engender an increased awareness of the whole or ‘bigger picture’ that could result in deeper levels of thinking. Subsequently, as depicted in Figure 6, as learning of how best to counter rhinoceros poaching deepens, so the possibility for the actions by law enforcement stakeholders to change towards bettering their counter poaching and allow for new developments in rhinoceros poaching.

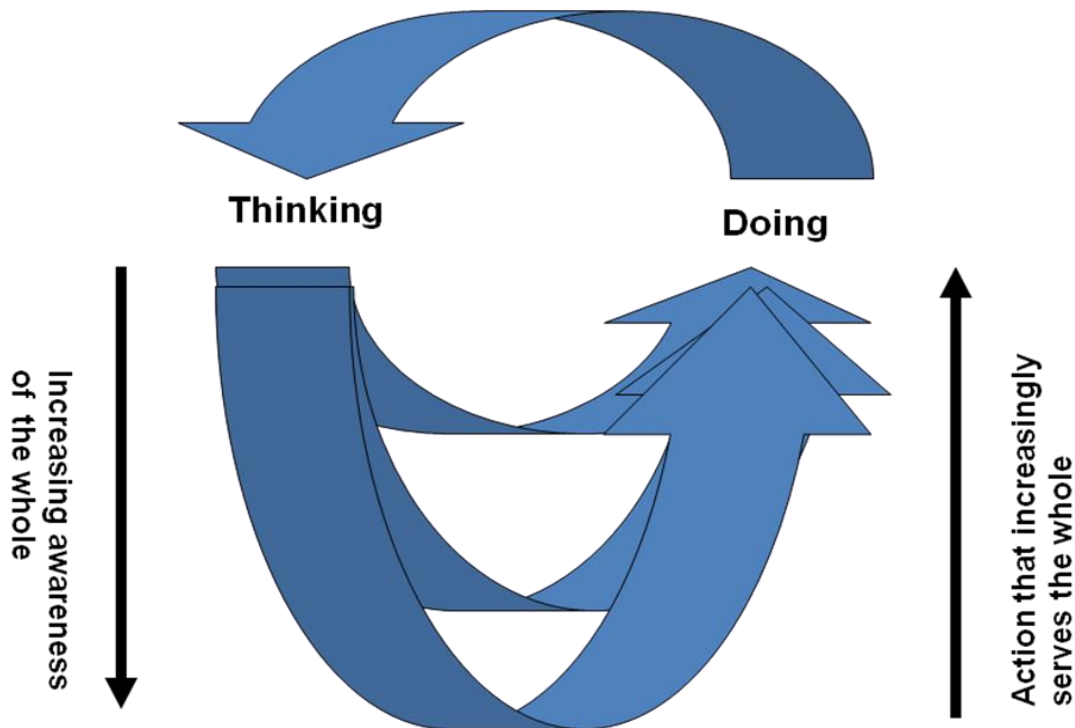


Figure 6. Deeper levels of learning creating awareness of the larger whole (after Senge et al., 2005, p 11)

Senge *et al.* (2005) depict two broad areas of activity on the Theory U model rendition above. Down the left hand side of the U are reflections which increase the understanding of the “whole”. As this takes place, an individual/organization’s actions are reshaped by the roleplayers themselves and their actions are motivated to reveal and increase and assist the whole picture. This process results in periods of learning which reinforce each other and so more understanding and hence more learning begins to emerge.

Emphasis within this mini-dissertation was channeled towards seeing whether the selected law enforcement roleplayers, who were all anti – poaching officials, were well pre-disposed to this type of learning. Each level of the “U” is a deeper degree of learning. The different levels of the “U” contain a sequence of capacities as Scharmer (2009b) terms them. These are depicted in Figure 7.

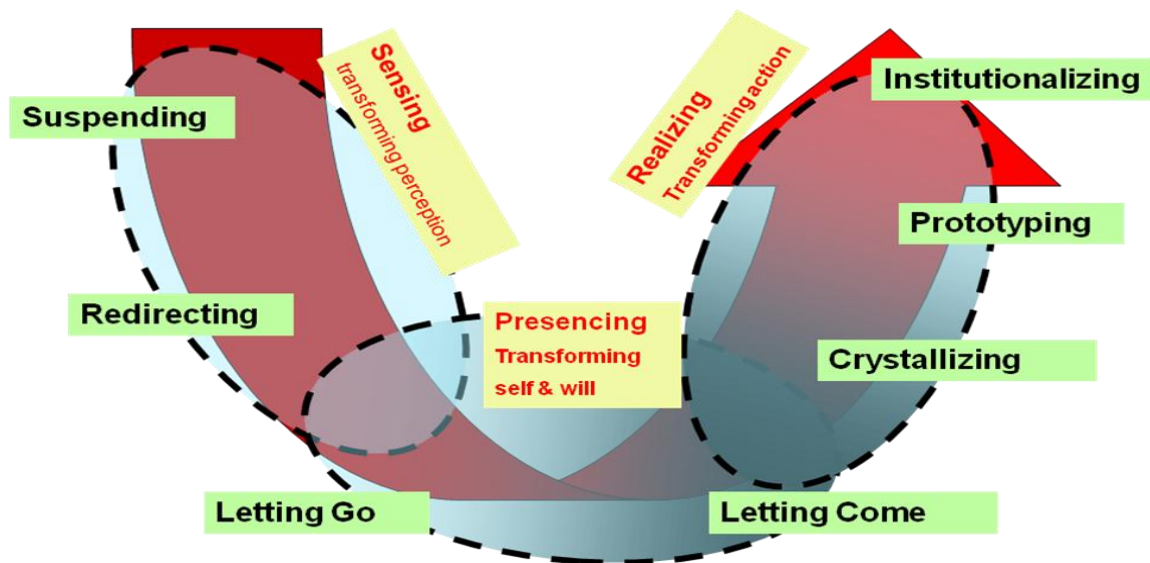


Figure 7. The U movement of transformation (after Senge et al., 2005, p 219)

Within Scharmer's Theory U there are seven fundamental capacities which he groups into three stages, which need to be exercised in an iterative sequence as the learner/s move through successive iterations of the U. (1) Sensing (*transforming perception*), (2) Presencing (*transforming self and will*) and (3) Realizing/Creating (*transforming action*). A capacity will exclusively be realized when the previous one has been achieved.

This movement brings to the fore the necessity to engage in dialogue and be open minded during the sensing phase. During the sensing phase, views that are rigid i.e. world views or more specifically views held on rhinoceros anti-poaching are suspended. Conservation law enforcement stakeholders (who represent a wide forum of both state and private roleplayers) would look at the problem of rhinoceros poaching from multiple angles. These multiple perspectives enable an extended range of anti-poaching possibilities to become apparent. Examining and analyzing these possibilities results in creating the capacity to redirect. The wide forum of conservation law enforcement roleplayers would then be exposed to views that individually, they would not have been aware of. When new ideas are born while old ideas fade, or merge, then the letting go and letting new ideas come in, phase takes place. Law enforcement strategists tackling the complexity of rhinoceros poaching would then be able to transform their established habits as indicated in Section 2.7.2, into a new willingness to receive and incorporate

new ideas. This is the 'thinking' portion of deep learning. Senge *et al.* (2005) explain this as being at the heart of Theory U. The 'doing' part or action which is born from this is what results in crystallizing, prototyping and institutionalizing which would see conservation law enforcement roleplayers, adaptively transforming their actions to effectively counter rhinoceros poaching.

2.7.3 Absencing

As indicated in Section 2.7.2, habitual thinking leads to habitual actions which are counterproductive. Habitual actions result in predictable results which for conservation law enforcement stakeholders, equates to poached rhinoceroses. The process of moving through the absencing cycle, depicted in Figure 8, is the antithesis of the deeper learning cycle depicted in Figures 6 and 7. Absencing is the phenomenon which occurs when a *modus operandi* or practice, for example rhinoceros anti-poaching operations and strategizing, does not or cannot adapt to a complex problem. Instead the individuals and indeed often the organization as a whole exhibit the behaviors shown in the top arch in Figure 8. A mild example of absencing behavior in the context of this study would be blindly adhering to set Standard Operating Procedures or policies governing the behavior of employees with regards to rhinoceros security planning and reaction.

Absencing cycle type behaviors result in institutional ignorance and if left unchecked, into institutional arrogance. Within a pattern of absencing cycle behaviors the rhinoceros anti-poaching operations and strategizing become stuck in one self or view as shown in Figure 8 and is the antithesis of the positive influences of transforming an individual's self and will. As indicated by Objective 3 in Section 1.5, this study sets out to gauge whether the law enforcement roleplayers in iMfolozi Game Reserve have the willingness and ability to engage in social learning as framed by the Theory U paradigm. If an absencing cycle has manifested itself within the institution of EKZNW then a degree of manipulation will be evident and the ability of the conservation law enforcement roleplayers to transform their willingness to change will be marginal.



Figure 8. The Cycle of Absencing and Presencing (adapted from Scharmer, 2009b)

Scharmer (2009a) believes that the majority of individuals want to function within a scope of creative emergence, in other words the U or presencing part of Figure 8, but the organisations and systems they find themselves in are locked into a cycle of absencing which is exceptionally unhealthy.

2.7.4 Macro-dynamics of Change

Profound changes on a large scale are required to reduce the rhinoceros poaching deaths to zero. This section explores the dynamics of such large scale change as explained by Senge *et al.* (1999) in Figure 9. The learning and motivational energy dynamics of this process are aligned to those in Theory U inasmuch as they involve a continuous, iterative interplay between thinking and doing and as the network of dialogue, reflection and action builds momentum to

carry the ideas into work practices and eventually to results which then bring credibility to the process. These processes are closely akin to those in Theory U and indeed if one considers the diagram in Figure 9 through Theory U mental lenses one can see the ever deepening U unfolding.

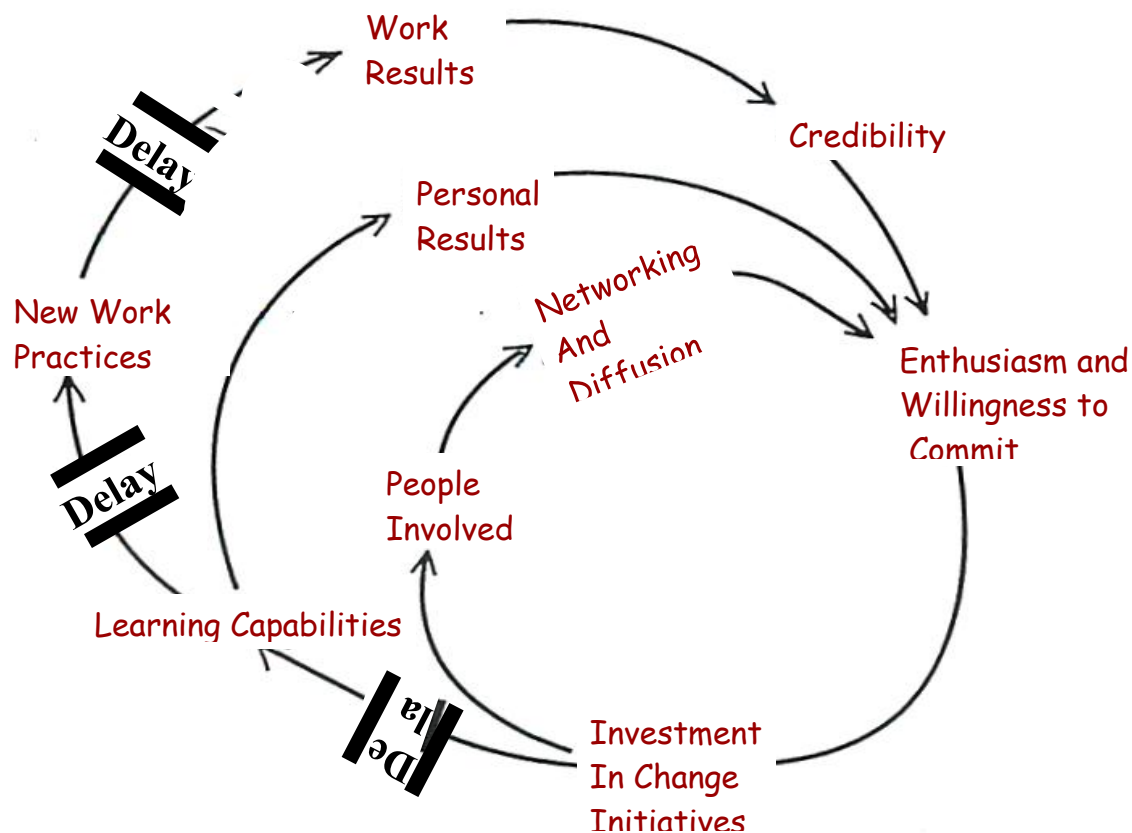


Figure 9. Processes of profound change (after Senge *et al.*, 1999, p 54)

These macro-dynamics indicate very clearly that large scale change in complex settings is not achieved in one step but requires a dynamic, iterative buildup over a sustained period.

According to Senge *et al.* (1999) the capabilities that produce the energy and understanding to progress through the stages shown in Figure 9 are aspiration, reflective conversation and understanding complexity. In the paragraph below these are expanded and linked to the capacities and process of Theory U.

- Aspiration – when an individual/organisation faces towards what is authentically their passion or mandate as opposed to *reacting to circumstances*. Aspiration is what motivates individuals or organisations to keep traversing around the U. Moving through the U over and over again takes energy and aspiration supplies that motivation.
- Reflective conversation – when an individual/organisation corresponds in ways that develop consideration to initiate *shared understanding* as well as *collective action*. Reflective conversation is a key part of the U at several places. Core capacities in the U such as Suspending (describing thoughts so that individuals and organisations can think about them) and Crystallizing (i.e. to say something in a reflective conversation individuals/organisations have to crystallize the fragments of thought that they have on a subject and then articulate them through Prototyping sentences into the conversation) are indicative of the need for the capability to engage in reflective conversation.
- Understanding complexity – when an individual/organisation comprehends the association of underlying problems thereby taking cognizance of the *consequences of actions* both in the present climate and the future climate. This capability is essential for the realization of the core capacities represented on the left hand side of the downward movement of the U, as depicted in Figure 6. A deepening understanding of the complex whole is what will result from progressing downward through the U.

Besides the course of action shown in Figure 9, many more aspects exist that affect learning. An additional two activities are added by Senge *et al.* (1999) to the method that upholds profound learning and change. These are (1) elevating personal results, (2) cultivating networks of dedicated people. To accomplish and maintain learning, these activities are all essential.

Personal results being fulfilled is believed by Senge *et al.* (1999) to be the first stage in change and learning. What compels people is personal results. If grasping something new enhances personal results, it develops enthusiasm. Enthusiasm becomes more when individuals profit in themselves from

understanding a new method or idea. The outcome is a surge forward towards sharing information and networking.

Senge *et al.* (1999) indicate that many investigations highlight the significance of informal networks in the circulation of learning. Furthermore, they go on to explain that such informal networks are often more important than formal management arrangements and result in more effective learning combinations. They are usually more advanced in cultivating and nourishing new ideas. Credibility is the reason for this. Every day, informal networks are utilized by individuals in their respective workplaces to solve mundane and casual problems. Trust relationships emerge because of this. New ideas from an organisation's hierarchy or "bosses" may be considered in a skeptical manner. Conservation law enforcement staff may ask "who is this person to ask me this when they don't even do the same work that I do?" However, from a colleague whom the ranger chooses to engage with and swap information to solve problems it would probably be easier to allow a new idea to form and grow.

2.8 Community of Practice

It is important to develop a community of practice to sustain the energy, motivation and learning required to work continuously with Theory U. Furthermore, the macro dynamics of profound change, outlined by Senge *et al.* (1999), *inter alia* in Figure 9, are also justification as to why it is important to develop a community of practice.

Within the context of this study, it was important for the researcher to gain an appreciation of what communities of practice mean, particularly in terms of the rationale for this study. Interestingly, Wenger (2009) explains that a community of practice can itself, be viewed as a social learning system. Within learning and within community of practice some vital characteristics come to the fore such as the validity of complex relationships, self-organisation, dynamic boundaries, and ongoing negotiation of identity to name but a few. The researcher identified a need to begin a community of practice to learn from the practical experience of

others regarding rhinoceros anti-poaching operations and strategies. Individuals whom it was anticipated would be well predisposed to thinking and acting within the Presencing Cycle of Theory U, were sought for these community of practice activities. The writings of Wenger had a strong influence on the community of practices ideas in this action research. Wenger (2009, p4) explains that “knowledge is not a separate object from the people who produced it or even the process of producing it”.

Wenger continues to explain that within the space of social learning, “participants engage their identity in the inquiry. They use their very beings—their personal history, relationships, and aspirations—as vehicles for learning. They pursue learning as a change in their ability to participate in the world, as a transformation of their identity”, Wenger (2009, p4). A large part of the motive for this study was the belief that by acquiring new insights through the lenses of Theory U, it would be possible to identify and approach others to form a Theory U based community of practice. The purpose of such a community of practice is to enable social learning to more effectively curb rhinoceros poaching. The effects of this will be that law enforcement roleplayers would have, as Wenger (2009) explains, a certain identity that would engender ways of being and behaving. Law enforcement officials would see themselves as co-generators of wise options to counter the effects of modern rhinoceros poaching. Their identity would grow to include a view of themselves as being the trusted custodians of rhinoceros populations in the various protected areas. This in turn would further their drive to co-generate sensible and innovative options to curbing the rhinoceros poaching in their reserves.

Woven into the conclusion of this literature review chapter is a brief indication of how the concept of community of practice was used as one of the research methods in this study. As an embryonic start the researcher chose to engage with a community of practice colleague to further the researcher’s ability to learn and engage in dialogue that would ultimately lead to more enhanced resources to learning. This was done to further enable the researcher to start to appreciate the value and wisdom of multi-stakeholder rhinoceros anti-poaching initiatives.

The chosen community of practice colleague had past experiences which indicated an inherently pre-disposition to thinking and reasoning within the Presencing Cycle of the Theory U movement. He was also respected and trusted by the researcher and has an intimate knowledge of the working environs of the iMfolozi law enforcement roleplayers. It must be noted however, that the interviewee's identities were kept secret from the community of practice colleague, only code numbers were used.

It was important for the researcher to interact with a community of practice colleague because communication requires enough mutual engagement to negotiate a shared context of experience; "learning in a social learning space covers all the aspects of knowing, relevant to a person who can act meaningfully and competently" because "participants already sharing much context" and "a few words can express huge amounts" (Wenger 2009, p4-5). Consequently, the interaction between the researcher and the community of practice colleague was vital and was easy. The wisdom of Wenger's observation was evident in the post interview dialogues entered into between the researcher and the community of practice colleague. These proved to be most informative in interpreting the responses of the interviewees, using mental lenses influenced by the seven core capacities of Theory U.

Chapter 3. Research Methods

3.1 Introduction

The research conducted in this study started with Theory U and gained an understanding of the theory through conducting a literature review with its associated research, reading, reflection, conversations and learning. Selected roleplayers from within the anti-poaching realm at iMfolozi Game Reserve were then interviewed. The purpose of the interviews was to assess the natural predisposition of these roleplayers to think and act according to the seven core capacities of the Presencing Cycle in Theory U. The motive for this was to seek the core of a future Community of Practice that can engage one another with regards to the challenges of countering rhinoceros poaching while progressively, iteratively and continuously developing the seven core capacities of Theory U.

3.2 Overview of the Research Methods Employed

As mentioned above the method sequence followed was first to review the literature on Theory U and related topics. This review provided the mental lenses necessary to progress to the next step of role player selection which culminated in conducting semi-structured interviews with these roleplayers. Following these interviews an impression was formed and gathered as to whether these key stakeholders were in fact engaging in the transforming of their perceptions, their wills and their actions according to the 7 core capacities of Theory U. The study focused on the discernment of human behavior originating from the outlooks of the law enforcement officials involved and was therefore qualitative in nature. Miles (1994) notes that qualitative research incorporates noticeably small cross sections of people researched through focused methods such as interviews. The analytical methods used were to view the verbal answers given by interviewees during dialogue, in the light of the Presencing Cycle of Theory U. Whether the answers given could be attributed to one or more of the seven core capacities of the Presencing Cycle was ascertained by the researcher. The theoretical base and 'new lenses' acquired through completing Objective 1, was a crucial

instrument in this process. Discretionary methods included observations of the interviewees' body language and their perceived degree of comfort with direct questions pertaining to the sensitive topic of rhinoceros anti-poaching within EKZNW. Any comments made by interviewees of a personal nature were noted by the discretionary method and served as a gauge of whether the capacities of a Presencing Cycle of Theory U were present in the Interviewee and hence whether they may serve deeper learning. At the same time, if the behaviors and thinking patterns of an absencing cycle were overshadowing the potential for deeper learning, as described in Section 2.7.4, this was also noted.

The methods employed in this research were determined by the needs of the Objectives, recorded in Section 1.5 and repeated below:

Objective 1 - To review selected literature that surrounds and supports Scharmer's Theory U.

The literature review, which delved into elements of Theory U and its application, incorporating both Presencing Cycle and absencing cycles, were discussed with a confidential community of practice colleague as well as with the dissertation supervisor.

These engagements help a great deal to further augment knowledge of Theory U as well as the rhinoceros poaching situation in iMfolozi.

Objective 2 - To assess the extent to which key stakeholders have been unknowingly and instinctively operating in accordance with Theory U type processes.

In addition to this interview the researcher factored in knowledge he has of these roleplayers' thoughts and actions within the context of his participative experience in iMfolozi over the past decade.

Objective 3 - To explore whether key stakeholders have the potential to engage in dynamic social learning as framed by the Theory U paradigm.

Notes were made during the whole process of conducting the interview. Immediately after the interviewee had left, an in-depth discussion with the community of practice colleague would ensue. A narrative report was generated by the researcher immediately after the telephonic discussion with the community of practice colleague. The process then culminated in the researcher compiling a brief report taking into consideration the notes made during the interview as well as the discussion with the community of practice colleague. These interview reports are presented in Appendix C and from these; selected reports are presented and further analyzed in Chapter 4

3.3 Method – Qualitative Research

According to Yin (1994), a researcher engaging in qualitative research must have a comprehensive grounding on the subject as well as an impartial and adjustable approach. The researcher in this case has a comprehensive grounding in rhinoceros anti-poaching activities. The use of Theory U type mental lenses made the question of impartiality an interesting one in the context of this study. As explained in Section 3.2 the researcher set out, *inter alia*, through the literature review presented in Chapter 2, to effectively develop a partiality. The researcher wanted to see, interpret, analyze and synthesize the interview conversations through the subjective lenses of Theory U. Yin (1994) explains that the researcher must have the adeptness to question investigatively and correctly while deciphering the answers. The additional need for clear and compact depiction of all observations is highlighted by Jocher (2006). In this research the method of exposing and demonstrating this occurrence is grounded on extended observations of law enforcement officials who are deeply involved with rhinoceros anti-poaching

3.4 Validity and Reliability

It is necessary to explicitly address the issues of validity and reliability because of the fact that the researcher holds a position of responsibility within the iMfolozi law enforcement team. Whilst being aware of the importance of the concepts of validity and reliability in qualitative as well as quantitative research it is understanding that was sought in this research. On the subject of understanding Morgan (2005, p12) explains that, “efforts at analysis, i.e. focusing on the parts, lose the ability to highlight their emergent properties”. Morgan (2005, p12) further explains that “knowledge can come from the analysis of the parts but understanding comes from synthesis and a systems approach”. The overriding aim of this mini-dissertation was to seek a deeper understanding of the thinking and actions of the selected anti-poaching roleplayers in iMfolozi.

It must be noted that the researcher needed to first learn about Theory U to obtain an individual understanding and be able to use the metaphorical lenses of Theory U. The metaphorical putting on of Theory U lenses is a declaration of subjectivity in this mini-dissertation. Using the ‘lenses’ of Theory U, the researcher then analyzed the interview responses through these subjective lenses. Each response from the interviewee was examined to see if it provided an insight as to what the interviewee was thinking. Part of the examination of data involved reflection with the community of practice colleague. This factor, beyond its primary purpose, filtered some of the subjective threats to this study’s validity as mitigated for in Table 1 in Section 3.6.2. As each piece of the puzzle was identified and analyzed the researcher was able to synthesize the pieces to form a clearer understanding of the respective interviewee’s propensity to engage with the core capacities of Theory U. The synthesizing process again made use of Theory U mental lenses and thought processes engendered by the researcher whilst achieving Objective 1 of this study.

The researcher further noted that the findings of this mini-dissertation are only valid for the group of roleplayers that were interviewed. A key motive of this study was to see if there was Theory U type thinking present in the interviewees and

furthermore who are the roleplayers that are that are most predisposed to presencing type thinking within Theory U. From this the researcher would be able to discern which roleplayers could be formed into a nucleus of a community of practice as described in Section 2.8.

The researcher noted that it would be highly unlikely that the same findings would be obtained from another group of interviewees in iMfolozi and therefore the findings are not likely to be reliable beyond what was ascertained from the group of roleplayers that was sampled for this mini-dissertation. The researcher was seeking a deeper understanding of the thinking and actions of these anti-poaching roleplayers in iMfolozi Game Reserve.

This research study looked at attempting to uncover the socially composed character of reality by means of both discretionary and analytical methods. The researcher set out to be deliberately discerning and discretionary as he interpreted the heard and seen responses of the various interviewees.

3.5 Research Design

Within the broad ambit of qualitative research the specific design of this research is explained below.

3.5.1 Sampling

A purposive sample sampling technique was employed to select a sample of conservation law enforcement staff. Six law enforcement officials were selected as indicated in Appendix A. They were selected from within the various leadership ranks in the iMfolozi Game Reserve as well as other EKZNW staff that have actively contributed to the rhinoceros anti-poaching operations and strategy since 2007. Table 3 as shown in Section 4.1 was then produced to aggregate the researcher's impressions for each of the questions and for all 6 interviewees.

The interview process was concluded within a two week period in which each of the 6 persons was interviewed once for a period lasting approximately one to two hours. Appendix A indicates the leadership level and position of the individuals interviewed and an analysis of the interviews is presented in Appendix C.

Returning to the issue of purposive sampling it is necessary to provide some justification for adopting this technique. Purposive sampling was chosen to avoid what Miles (1994, p27) calls “uninterpretable sawdust” when referring to effects of random sampling within the context of social learning processes. The researcher used the theory which underpins Scharmer’s Theory U to help discover useful and linked information in the data collected during the interviews and in so doing began to see patterns as synthesis, analysis and more synthesis led to a deeper understanding. In other words, the researcher got a ‘sprinkling or sawdust’ from the research sample, and then mapped the ‘sprinkling’ onto a Theory U template using Theory U lenses that had been developed in the process of achieving Objective 1 of this study. This ultimately led to an increased level of understanding, essential for successful the outcomes of Objectives 2 and 3.

3.6 Research Techniques

3.6.1 Documentary Analysis

Relevant literature with regards to the rhinoceros poaching threat was studied and investigated to gain an understanding of the complexity of rhinoceros poaching from both a national and trans-national perspective as well as within the iMfolozi Game Reserve. Academic journals, EKZNW policy documents, unpublished reports as well as research papers and law enforcement operations and strategy documents were all read and researched to enhance a systemic and holistic appreciation of the rhinoceros poaching situation. Literature allied to organizational learning, systems thinking, complexity and deeper thinking required to move through Theory U, was studied as per Objective 1 stated in

Section 1.5. The researcher engaged in this reading and reviewing exercise to improve his understanding of the organizational history of rhinoceros poaching with a particular focus on iMfolozi Game Reserve. In addition to this the researcher focused on developing an understanding of Theory U and the components thereof in the second part of the Chapter 2, literature review.

3.6.2 Methods Employed to Achieve Objectivity

As an employee of EKZNW, the researcher was serving as a Section Ranger in iMfolozi Game Reserve during this study. Since 2007 rhinoceros anti-poaching operation and strategizing has been an integral part of his responsibilities. This has necessitated involvement and interaction with all tiers of leadership personnel within iMfolozi as well as other senior EKZNW staff whose range of responsibilities include that of rhinoceros anti-poaching strategizing, policy formation and operational deployments. By default this has provided a platform to assimilate information critical to this study and to observe law enforcement officials engaging in rhinoceros anti-poaching operations and strategizing and in iMfolozi. Adaptive adjustment characterized the progress of this research. Adaption was advised by observations, notes, conversations and reflections generated through the researcher engaging in dialogue with key law enforcement roleplayers. In addition, documentation from meetings which had been attended by relevant personnel and the researcher were reviewed over and over again in the light of appropriate and relevant literature and understandings that were emerging through the course of the research. As noted by Welman *et al.* (2005), the role of the researcher is dual when he/she is included in participant examinations. During the course of this research, the researcher was acutely aware of his dual role and for this reason the researcher continued with his operational duties whilst all the while equipping himself with the mental lenses of Theory U and the 7 core capacities that make up the Presencing Cycle within Theory U. Through deliberation with the research supervisor and the community of practice colleague described in Section 2.8, proactive steps, as indicated in Table 1 were taken to reduce the risk of excessive subjectivity, beyond that required by the method of deploying Theory U lenses.

Table 1. Mitigating actions to maintain objectivity.

Factors associated with direct involvement in Hluhluwe-iMfolozi Park law enforcement	Positive influences	Negative influences	Mitigating actions
1. Researcher holds a leadership position in iMfolozi	Has current first hand knowledge of the law enforcement and rhinoceros poaching situation in iMfolozi	Could be so involved that objectivity could be compromised	All interview results are discussed with an external community of practice colleague
2. Researcher is only responsible for a certain area that is being affected by rhinoceros poaching.	The area within the scope of his responsibility is well known and he has access to all the law enforcement data captured therein.	Although there is interaction between colleagues of the same management level, there could be bias towards the validity of the law enforcement initiatives in other areas when compared to his.	Review of information pertaining to law enforcement and discussion through networking of the current rhinoceros poaching and subsequent anti-poaching operations taking place in iMfolozi. This has to be done through personal liaison with community of practice colleagues as well as external stakeholders who are knowledgeable about the anti-poaching situation in iMfolozi but who are not a part of it.
3. Researcher has been involved in various operational drives in rhinoceros anti-poaching investigations involving arrests of both external poachers and internal employees of EKZNW.	The researcher has insight into the complexities of the rhinoceros poaching situation as well as the investigations pertaining to the organized and syndicated nature of rhinoceros poaching strategies	There could be some suspicion by interviewees as to the motive for the interview. They could be suspicious of the motive behind the interview and what the data is going to be used for. Uncertainty as to whether the information gleaned will result in punitive measures instituted towards them by EKZNW is a concern.	<p>The context of the study will be explained as well as the fact that adequate steps will be taken to preserve anonymity. The following steps were taken:</p> <ul style="list-style-type: none"> A) All interviews were conducted on a one-on-one basis. B) There was no audio or video recording equipment used or any other technological devices. C) The content of the Ethical clearance, Information of Informed Consent as well as the Declaration of Informed Consent was explained. D) The researcher was not dressed in uniform so as to avoid direct perceptions of rank.

3.6.3 Semi-Structured Interviews

Monette *et al.* (2002) explain that interviews can be arduous and lengthy but that they do offer greater flexibility and adaptability with regards to the acquisition of

required information. The interacting with conservation law enforcement roleplayers and the opportunity that these interviews afforded, to deepen appreciation of the rhinoceros poaching context, was what made that interaction invaluable. Themes and questions were indexed to cover the contextualization of questions. This contextualization, could thus be varied between interviews as deemed necessary during the interview process, without compromising the effectiveness of the mental lenses required to detect emerging information on the 7 capacities of the Presencing Cycle in Theory U.

Through a combination of their views as indicated in their responses, the researcher noted the, ability of interviewees to recognize reflective and psychological processes and actions relating to the core capacities of Theory U. Through this process, of putting together these views and responses, a more whole perspective began to emerge. Each of the interviewees was engaged personally with the questionnaire and following each interview a discussion was held with the community of practice colleague who is familiar with Theory U. The purpose of the one-on-one dialogue with the community of practice colleague was to help develop Theory U type insights, immediately after each interview. Theory U was then used to interpret the semi-structured interview conversations through the 'new lenses' provided by reaching Objective 1 of this study. The interviewee's responses reflected against the seven core capacities of the presencing (downward) part of Theory U were gathered. As Theory U comprises both the positive learning aspects of presencing, as well as the negative and potentially harmful aspects of the absencing cycle, any responses indicative of the influence of absencing, were also gathered.

According to Stake (1995), interviews are under certain circumstances pertinent to revealing the multiple realities retained by the different law enforcement officials and extend opportunities for interacting amongst other officials. These realistically deepened the comprehension of context. Welman *et al.* (2005) explain that semi-structured interviews afford a pliable measuring instrument to the researcher. The semi-structured interview was particularly useful to the researcher in this instance as questions could be posed that revealed the

interviewees thoughts on each of the 7 core capacities of the Presencing Cycle part of Theory U. The researcher then collated these responses into three groups aligned with the Presencing Cycle part of the U, these groups are sensing, presencing and creating, as depicted in Figure 7.

In taking the above into consideration, each interviewee was interviewed in isolation and due consideration was taken in mitigating steps to ensure objectivity as listed in Table 1. The interview guide that was drawn to be utilized for the research process contained a standard set of questions for the interviewees to answer. These are presented in Appendix B. Interviewee responses were not written down in their entirety but keynotes were gathered with the interviewee being able to view the notes at the end of the interview if they so wished. Interestingly none of the interviewees took up the offer to peruse the researcher's notes. Immediately upon the termination of the interview, a thorough discussion with the community of practice colleague ensued whereby all the interviewee's responses were discussed in context to their applicability with each of the seven core capacities of Theory U.

The innate adjustability of the semi-structured interviews facilitated the opportunity to investigate certain themes so as to clarify unclear responses and to ask any additional questions that would assist in enquiring into certain themes or responses. As per constitutional responsibility, ethical considerations were paramount and were taken cognizance of to ensure that interviewees were not harmed in any way. Within this research undertaking, the law enforcement officials' identities have been obscured to retain anonymity. It is important to note that the interviewees' identities were also not revealed to the community of practice colleague and only code numbers were used.

In taking the above into consideration, accurate recording of the observations and nuances made during the interview as well as creating a feeling of trust was very important for the interviewer. The establishment of trust was paramount and for this reason no use was made of any audiovisual equipment, because of the

sensitivity of rhinoceros anti-poaching security operations and the fact that law enforcement officials were requested to identify obstacles as well as give ideas on how to improve strategies to enhance the current rhinoceros anti-poaching initiative in iMfolozi Game Reserve. Law enforcement officials could have been reluctant to answer controversial questions if they felt that their answers were negative towards EKZNW and if these answers were being recorded by electronic means or if they were not going to remain anonymous.

In summary, keynotes were gathered during the course of the interview and a compilation of a thorough record was made as soon as the interview ended. The rationale behind this was to capture and appreciate the law enforcement official's opinions and nonverbal bearing, accurately. Equally important were the assessments of the interviewer with regards to the interviewee's nonverbal communication such as body language and tone.

The questions were constructed specifically to facilitate a process whereby responses could be viewed through the 'lenses' of Theory U and to assess the interviewee's willingness and capability to embrace and enact each of the 7 components of Theory U within the context of rhinoceros anti-poaching operations and strategic planning within iMfolozi Game Reserve. Gauging the capabilities of the interviewees as well as their willingness to engage on each of the seven core capacities of Theory U was the overriding objective as indicated in Section 1.5. An example of this would be determining from an interviewee's narrative if it was evident that they could let go of a preconceived notion? Or had they tried to crystallize a new thought that they had begun to let new ideas come into their mindset? Or had they prototyped some new action and experimented with any form of change to see if a new approach worked? Due caution had to be exercised with the structure and content of the questions so as not to engender any suspicions or fears. This was done by keeping the questions simple and short and allowing for discussion and debate through dialog as shown in Appendix B.

3.6.4 Interview Process

The interviewee's were interviewed, one at a time, in the work place and the necessary arrangements for the interview set up via telephone or radio through the correct organizational communication structure. Keynotes were made during the interview. Immediately after concluding the post interview report, the community of practice colleague was consulted in the strictest confidence and any relevant additional notes made. A thorough post interview report was then compiled. The rationale behind the engagement of a community of practice colleague was to compensate for the fact that due to the sensitive nature of the questions and the inherent vulnerability of the interviewees, no electronic audio recordings were made. The immediacy of this dialogue was important and so this aspect of the research method for this mini-dissertation was taken seriously. An assessment of the candidate's willingness and capability to engage in the various core capacities of Theory U was made and the result indicated with an X on a Table similar to that presented in Table 2.

Table 2. Score allocation table for a particular interview question and for a particular interviewee.

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

This recording process was conducted for each of the questions and for each interviewee. A table was produced for each question and upon final termination of the dialogue with regards to that question. The above Table is an example of an interviewee who gave the researcher the impression that he had no willingness and only average capability to engage a specific core capacity of Theory U. This impression is recorded with an X in the appropriate block. Through this process a deeper understanding began to emerge regarding both the willingness and the capability of interviewees to engage on the 7 core capacities of the U.

As mentioned in Section 3.6.4 the interviews were not audio taped because of the sensitivity of the research subject. Had they been audio taped and thus provide accurate verbatim records of the dialogue, between interviewer and interviewee these recordings would be available for others to interpret in the fullness of time. It is noted that this degree of research accuracy was not obtainable and that the researcher had to filter the responses from the interviewees through the newly acquired lenses of his Theory U knowledge. The shortcomings of this procedure were however mitigated, to a degree, through prompt discussion with the community of practice colleague immediately after each interview, while the responses were still fresh in the mind of the researcher. As an example, an interviewee responded to a question by stating that he would not implement any proactive action that was not sanctioned by a superior ranking official. The researcher deduced that the interviewee did not have the capability to institutionalize. The community of practice colleague then pointed out that the interviewee could well have the capability to institutionalize but was not willing to do so for fear of absencing type behaviors from the organisation.

3.7 Further Interpretation and Analysis of Interview Responses

In this type of research approach it is necessary to both aggregate and disaggregate information in different ways in an attempt to reveal more of the systems at play in the complex realm being studied. In the light of this need an aggregated view of the individual responses developed and presented in Section 4.1, Table 3. It was anticipated that this Table 3 may need to be disaggregated to reveal impressions for the left hand side and the right hand side of the U separately. The visible actions are depicted on right hand side of the U.

Chapter 4. Analyses of Results

4.1 Introduction and Overview

The desire to seek indicators for positive change guided this research into concentrating on the presencing aspects of Theory U, rather than those relating to the absencing, shown in Figure 8. What leadership attributes exist, and what the roleplayers are currently thinking and doing, when analyzed in terms of a social learning model, was the key focus in this research. Knowledge of the above is crucial in determining what it is that could be standing in the “mental” way of the rhinoceros anti-poaching role players being far more effective.

An analysis method, as described in Chapter 3 and summarized in Table 2 was carried out on each of the eight questions and for each of five interviewees. Results from one interviewee were excluded from the analysis for reasons given below. All of these 40 analyses and their accompanying summary tables are presented in Appendix C. In this Chapter 4 the analyses of eight of the interview responses are presented. These eight analyses, one for each question, were chosen because they provide the clear indications of the core capacities of Theory U. At the commencement of Appendix C a short description is included to guide the reader as to the lay out of the Appendix for the questions, responses and their analysis in relation to the core capacities of Theory U.

An overview of the way in which the results are analyzed, is presented to complete this Section 4.1. The overview is structured in terms of the three Objectives of this mini-dissertation as presented in Section 1.5.

Objective 1 was to review selected literature that surrounds and supports Scharmer’s Theory U. The results relating to Objective 1 are presented within Section 2.7.2 of Chapter 2 that covers the literature review of knowledge underpinning the social learning paradigm of Theory U. In addition to this, the researcher engaged in multiple discussions with his supervisor and his

community of practice colleague who are knowledgeable on the subject of Theory U. Key aspects that came out of the literature review in Chapter 2 were that both the processes of the 'deeper thinking' downward movement of the Presencing Cycle as well as the detrimental effects of the absencing cycle were going to be present simultaneously. The researcher delved into the theoretical base of Theory U including the absencing cycle and established a firm knowledge base or mental lenses from which to observe and interpret the interviewees' responses. These new mental lenses proved essential when conducting the semi-structured interviews. Responses to the questions and subsequent dialogues with the community of practice colleague were sifted through 'new lenses' developed during the process of fulfilling Objective 1, of this study. Using these 'new lenses', the researcher was able to assess the responses from the interviewees with regards to their orientation on either the presencing or the absencing component of Theory U. The theoretical learning gained in achieving Objective 1 also enabled the researcher to grasp key concepts of systems thinking. This new knowledge enabled placement of the information, from interviewee responses, within the various core capacities on Theory U. The lessons learned whilst developing Chapter 2 enabled the researcher to become sensitized to a range of concepts that were invaluable, later in the research, when engaging with roleplayers and interviewees. In essence, the theoretical knowledge obtained by the researcher through the literature review, Chapter 2, provided the "lenses" necessary to conduct the research for Objectives 2 and 3 and to draw conclusions.

Objective 2 was to assess the extent to which key roleplayers have, unknowingly and instinctively been operating in accordance with Theory U type processes. The researcher gauged from the responses of the interviewees in the semi-structured interviews whether the interviewees were naturally using ways of thinking and acting that contained the core capacities of the Presencing Cycle of Theory U. These results are presented as discussed earlier in this Section 4.1.

Objective 3 was to explore whether key roleplayers have the potential to engage in dynamic social learning as framed by the Theory U paradigm. The outcome of

Objective 3 is presented by means of observation of insights gained through the semi-structured interview process.

It is important to mention that questions 6 and 7 were combined and that the single answer was plotted on the appropriate table. The questions therefore equate to 7 per interviewee and therefore the total markers indicated on Table 3 equal 35 in total.

The summary of the collective scores was derived by plotting each question's response onto a table, such as Table 2, Section 3.6. 4. These responses were then summarized by plotting them on a single Table 3, presented below.

Table 3. Summary of collective scores for participant interviewees.

Capability	Willingness			
		none	weak	strong
	None	X	X X	X
	Average	X X X X X X	X	
	High	X X X X X	X X XX	X X X X X X X X X X X X X X X

Table 3 shows primarily, that there are aspects of the U capacities on which some of the interviewees were perceived to be both strongly willing and highly capable. This Table also begs the question as to whether an explainable pattern was revealed. A pattern was indeed revealed by separating the mental aspects of the U movement on the left hand side of the U from the action (and therefore physically noticeable) aspects of the right hand side of the U movement.

In this Chapter 4 only a selection of the response analyses are presented. The rest are presented in Appendix C and in the following groupings:

Questions on Sensing – transforming perceptions

- presented to Junior iMfolozi Management interviewee
- presented to Middle iMfolozi Management interviewees
- presented to Senior iMfolozi Management interviewees

Questions on Presencing – transforming self and will

- presented to Junior iMfolozi Management interviewee
- presented to Middle iMfolozi Management interviewees
- presented to Senior iMfolozi Management interviewees

Questions on Creating – transforming action

- presented to Junior iMfolozi Management interviewee
- presented to Middle iMfolozi Management interviewees
- presented to Senior iMfolozi Management interviewees

4.2 Detailed Analyses of Interviews

In this Section, eight examples are presented from the information gathered within the interview process. These examples represent the clearest manifestations of the core capacities of Theory U. The following table indicates the questions selected within the Theory U process as indicated in Figure 7 above.

Table 4. Interviewee question selected as clearest manifestation of a specific core capacity of Theory U.

	Question no.	Question selected
Sensing	1.	Interviewee A - question 1.
	2.	Interviewee D – question 2.
	3.	Interviewee F – question 3.
Presencing	4.	Interviewee B – question 4.
	5.	Interviewee A – question 5.
Creating	6.	Interviewee C – question 6
	7.	Interviewee C – question 7
	8.	Interviewee F – question 8

Interviewee A

Q1 - What is your view of the current rhino poaching situation in iMfolozi?

Table 5. Response gathered for Question 1.

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee indicated a strong willingness and a high capability to suspend his view. He presented a view that rhinoceros anti-poaching is a complex and multi-facetted problem that cannot be solved in any singular way. He was able to look at core issues from multiple angles and he was able to articulate multiple views of the situation and problem. This indicates that his ability to suspend his views for others to see and understand is good. It also indicated that over time his views had matured, grown and become multi-faceted which indicates a

deepening of understanding. He even mentioned occurrences of rhinoceros poaching in other provinces that he had only ever heard about on the news. Using the new lenses of Theory U, it was possible to gauge that this interviewee was both willing and able to transform his perception on the complexity of the rhinoceros poaching problem by mentally suspending the problem and looking at it from multiple angles. His actions indicated to the researcher that he was able to articulate his insights well. The latter ability stemmed from an ability to crystallize his views and institutionalize them during the interview.

Interviewee D

Q2 - How do you process alternative views and perceptions?

Table 6. Response gathered for Question 2.

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee displayed a strong willingness and a high capability to redirect his thoughts. As the dialogue continued beyond the initial answer to this question, the interviewee explained that he always regards others opinions and interacts with many roleplayers due to his job requirements. Upon prompting from the researcher, the interviewee explained that his job description actually mandated him to engage with law enforcement role players external to EKZNW. The interviewee explained that “there is no such thing as useless information” and that he looks at a person’s background when listening to their alternative views and also tries to assess what it is they are not saying, especially if they have experience in what they are talking about. Filtering these responses through the framework of Theory U, the researcher noted that the propensity for this interviewee to transform his perceptions on rhinoceros anti-poaching was very good and that the interviewee was both strongly willing and highly capable

of suspending and re-directing his perceptions while officially engaging with multiple role players, external to EKZNW.

Interviewee F

Q3 - With who have you shared this view?

Table 7. Response gathered for Question 3.

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

During the dialogue resulting from answering this question, the researcher noted a subtle change in the interviewee's body language and behavior. When formulating his answer as to with whom he shares his views the researcher noted that the interviewee explained that he was comfortable with sharing his views with colleagues in the field but would only share his views with EKZNW staff in higher positions whom he knew personally as friends. The researcher expanded the dialogue at this point, questioning the interviewee as to why he felt this way? The interviewee responded by explaining that views and information on rhinoceros poaching was sensitive and that he felt that EKZNW as an organisation would not tolerate any of its employees sharing views on rhinoceros security matters that were not exactly in line with theirs. Filtering the extended dialogue with regards to this question through the lenses of Theory U, the researcher noted that this role player had a strong ability to transform his perceptions through suspending and re-directing his thoughts and views on rhinoceros poaching as well as letting go of previously held ideas. The researcher recorded the interviewee as having a strong willingness to transform his perceptions and an equally high degree of capability to do so.

Interviewee B

Q4 - What other views have you heard?

Table 8. Response gathered for Question 4.

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The interviewee explained that he interacts with numerous people who have no knowledge of or affinity for the rhinoceros anti-poaching topic. Many of the views he hears are not grounded on prior contextual knowledge. Despite this he is able to engage them, explain where relevant, the inappropriateness of the view according to him, and offer his “more informed view” based on his prior experience. The interviewee made it clear that he only interacts with individuals who have no prior experience with rhinoceros anti-poaching, by choice. The researcher noted that this indicated an unwillingness to let new ideas come into his mental model as the interviewee would only be exposed to relative new ideas on rhinoceros security matters if he interacted with others who had some prior knowledge on the subject and who could offer up useful insights. Within iMfolozi there is an informal network of peers, lower ranking field staff and seniors that the interviewee could engage with but chooses not to. Within the interview the researcher noted that the interviewee was able to traverse through the downward movement of the U and that he had the ability to suspend and re-direct because he was able to engage with many different people although all these people had in common, the fact that they were not knowledgeable on the topic of rhinoceros poaching. His ability to let go was also evident but throughout the interview the researcher continually noted that the interviewee was only willing to engage each of these core capacities of the U by filtering these perceptions as well as his self and will through his personal experience of rhinoceros anti-poaching strategizing

as well as operational deployments. The researcher noted that due to the interviewee's experiences with rhinoceros poaching in iMfolozi being minimal, his willingness within the co-sensing and co-presencing phase of Theory U was lessened. This was due to him deliberately avoiding the thoughts of others, especially others who could by way of their experience in these matters have better insights than him. Furthermore, the researcher noted that this would probably affect his ability to adequately experience deeper learning through the transformation of his perceptions and will in the future.

Interviewee A

Q5 - Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?

Table 9. Response gathered for Question 5.

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High		X	

The interviewee was perceived by the researcher as having a high capability to transform his self and will. However, his willingness to do so through letting new ideas come in was perceived as weak. He explained the networking process which occurs laterally and informally within all non-commissioned ranks in the game reserve. Interviewee B, as noted in Appendix C, by contrast did not make use of this network even though it does exist as explained in these responses by interviewee A. Interviewee A is open to new ideas and welcomes them openly. He also explained his discussing the matter externally with community members and how they have provided insights based on their own interpretation of how internal staff are involved in poaching and how difficult it is/will be to solve poaching of that kind. Within the informal structure of his peer group, Interviewee A explained that he is willing to transform his will to counter rhinoceros poaching but that he and all his peers faced the same system whereby they take orders

from their superiors who are accountable for the planning of rhinoceros anti-poaching operations. The researcher noted that the interviewee is able to listen and modify or adjust his pre-conceived personal ideas to accommodate the ideas and responses of others. The interviewee was gauged by the researcher as being able to let new ideas come in that he was able to transform his self and will. This 'mental shift' engenders a shift in thought process and a deepening of understanding. However there is a portion of letting new ideas come in that requires a transforming of actions. Through continued dialogue, the researcher gained an insight into how this difference can cause an interviewee to positively reach the bottom of the U curve. Due to the fact that traversing down the U through suspending, re-directing, letting go and letting new ideas come in are all achievable thorough a transformation of perception and self and will, the interviewee essentially undergoes a mental change. This 'mental change' or deeper understanding is present and yet it is not overtly noticeable by members of a large institution. Most probably because this change in understanding has not yet manifested itself in actions which the institution could recognize and scrutinize. The second phase of letting new ideas come in, which engenders physical and overtly noticeable action, is where the crucial difference in willingness manifests itself.

Interviewee C

Q6 - How do rhino anti-poaching strategies get transferred into actions currently?

Q7 - How could the process of thoughts to actions be improved?

Table 10. Response gathered for Questions 6 and 7.

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High	X		

For assessing willingness to transform his actions based on a newly transformed will from the outcome of the previous question, Interviewee C was recorded by

the researcher as having no willingness to do so. Through the interviewee's answer to this question, the researcher noted that his capability to transform his actions was high. The disparity between the interviewee's willingness and capability to progress upwards through Theory U became clear to the researcher through expanding the dialogue beyond the answering of these two questions. The researcher re-addressed the comment made by the interviewee in Question 4 regarding the fact that there could be "leaking" of sensitive information relevant to rhinoceros anti-poaching operations and strategizing and what this potential "leaking" would result in. The interviewee explained that there are a large number of internal staff deployed within the iMfolozi law enforcement team, who he believes are corrupt. The interviewee further explained that if he was to network and discusses rhinoceros security interventions openly then it could potentially make him a target for reprisal from corrupt elements within EKZNW, both within iMfolozi and higher up in the organisation. The researcher filtered these comments through the framework of Theory U and noted that the propensity for transforming action was very much restricted by the belief of this interviewee. He feared reprisal from what he believed was a corrupt element within the law enforcement cadre. Advancing upwards through the U movement would engender overt actions resulting from a transformed perception and will. It is this overt action that could lead to the absencing behaviors of certain law enforcement staff and thus negatively affecting the interviewee. The result culminates in an individual who is capable of transformed action through crystallizing and prototyping but who is not willing to do so for fear of abuse from individuals and an organisation which often shows disturbing absencing cycle type behaviors.

Interviewee F

Q8 - How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Table 11. Response gathered for Question 8.

Capability	Willingness			
		none	weak	strong
	None			

	Average			
	High	x		

At this stage of the interview, the researcher had noted that due to the effects of an absencing cycle type behaviors being present in iMfolozi, that institutionalizing transformed actions would not be naturally forthcoming. In answering the question, the interviewee explained that for the process of thoughts to actions to be improved, there would need to be accountability. In addition to this, he explained that there would also need to be one-on-one supervision from superiors in the form of field visits to anti-poaching roleplayers deployed at ground level. The interviewee explained that currently there are no such arrangements. He stated that there is no organizational will for this to happen and so it does not. He further explained that for new thoughts and responses to be incorporated into rhino anti-poaching there would be a need for openness as well as freedom to make and implement decisions without fear of reprisal from the organisation. The researcher filtered these responses through the lenses of Theory U and recorded that the interviewee had the capability to progress upwards through the doing part of the U movement, but that he was not willing to do so due to fear of reprisal from his employer.

Throughout the interview with Interviewee F, it became strongly apparent that the presence of an absencing cycle within the organisation and within his working environment is influential much sooner in the U drive than with other interviewees. The interviewee became more and more guarded in his body language as well as in specific details of his answers as the interviewer probed and extended the dialogue. Historically there has been a degree of malicious treatment by EKZNW of the interviewee and it seems to surface in his distrust and therefore lack of willingness to engage with the phases of Theory U that require overt action that would make him 'noticeable' within the ranks of the iMfolozi rhinoceros anti-poaching cadre. Within the core capacities of Theory U where he would as an employee not need to make himself overtly vulnerable his willingness and capability to transform his perceptions and self are high. Within the downward movement of the U entailing a transformation of the mind – he

scores high with regards to capability and willingness. However, the core capacities of Theory U that requires him to make himself vulnerable and susceptible to ridicule or even retribution from the organisation, i.e. the advancement upwards through the U movement, he scores a low score for willingness. He is deeply concerned about being noticed and victimized by the organisation when taking transformed action with regards to rhinoceros anti-poaching. He accepted that being noticed could also result in being noticed for positive commendation but he indicated that it was unlikely to happen as he felt that EKZNW was not inclined to do that.

4.3 Aggregated Analyses Tables

As indicated in Section 3.7, the researcher collated the various responses from the interviewees and summarized them into a table to indicate thematic occurrences as indicated in Table 3 in Section 4.1. When reflecting on the meaning of the combined Table 3, it was realized that a separation of the analysis for the left hand side and the right hand side of Theory U as depicted in Figure 10 below would be useful. The results were then depicted separately on Table 11 and Table 12, below.



Figure 10. Left hand side – deepening understanding and right hand side transforming action (adapted after Senge *et al.*, 2005, p219)

Table 12 represents the cumulative responses as gathered through the semi-structured interview process for questions 1 – 5. These questions pertain to the core capacities of Theory U situated on the left hand side of the U curve, which indicates deepening understanding feed predominantly by reflective practices. As explained in Section 2.7.2, this part of the U curve is essentially concerned with sensing and presencing which constitutes a transformation of the mind through transforming perceptions as well as transforming will. It encompasses the core capacities of suspending thoughts, re-directing these thoughts and perceptions and letting go of previous views and assumptions and finally, in the initial phase of the transformation of will, through letting new ideas and perspectives come in.

Table 12. Left hand side of the U movement – Indicated by answers to questions 1- 5

Capability	Willingness			
		none	weak	strong
	None			
	Average	X X X X X	X	
	High	X	X X X X	X X X X X X X X X X X X X X X

The cumulative responses from the interviewees indicates that there is both a strong willingness and a high degree of capability throughout the spectrum of law enforcement roleplayers selected for this research, to progress positively and with ease through the sensing and presencing stages of Theory U. As explained in Section 2.7.2, the bottom of the U curve where the core capacities of letting go and letting new ideas come in are situated, constitutes the heart of Theory U. It is at this juncture that the transition from a transformed mind to transformed action takes place. Table 12 is an indication that law enforcement roleplayers in iMfolozi Game Reserve, have both the requisite willingness and capability to transform their perceptions as to the complexity of modern rhinoceros poaching as well as having the requisite willingness and capability to transform their wills into mentally formulating and strategizing their approach to bettering the counter poaching measures for rhinoceros poaching in iMfolozi Game Reserve.

Table 13 is representative of the interview questions which pertained to the core capacities indicative of transforming action. The core capacities of Theory U

which constitute the action orientated part of the U movement are crystallizing those thoughts, prototyping and experimenting and finally institutionalizing these actions to the betterment of rhinoceros anti-poaching.

Table 13. Right hand side of the U movement – Indicated through answers to questions 6 – 8

Capability	Willingness			
		none	weak	strong
	None	X	X X	X
	Average	X		
	High	X X X X		X

In Table 13 there is a dramatic change in the law enforcement roleplayers' strength with regards to their willingness to advance upwards through the right hand side of the U movement. The right hand side of the U movement is indicative of overtly displaying, through action, the results of a new mental model acquired through the transformation of perceptions and self and will. Actions taken up the right hand side of the U are physical and visible manifestation of a transformed mind as is vulnerable to both praise and condemnation. A comparison of Table 12 and Table 13 gives an indication that the capability of law enforcement roleplayers to undergo transformation within Theory U model is relatively high. There is however a contrast in respect of their willingness to transform their actions that was visible at the point where letting come to new ideas involved overt action that would be physically noticeable. The discussion and conclusions on the significance of the findings gathered in Tables 12 and 13 will be presented in Chapter 5.

Through this process the existence of an entrenched absencing cycle became evident. Evidence led to the conclusion that the interviewees are mostly thinking within the core capacities located within the sensing and presencing portion of the U but that when acting, they are subject to absencing behaviors from EKZNW and are therefore not willing to transform their actions in terms of prototyping and institutionalizing. The interviewees were not able to complete the upward movement of the Presencing Cycle and therefore gave an indication that currently within the organisation of EKZNW, the potential for healthy social learning is poor in the context of rhinoceros anti-poaching in iMfolozi Game Reserve.

Chapter 5. Discussions and Conclusions

5.1 Introduction

Rhinoceros poaching is complex and multi-faceted as explained in Section 2.6. The incremental rise in rhinoceros poaching in iMfolozi Game Reserve has initiated some learning amongst the anti-poaching roleplayers; however, it is a limited type of learning. Senge *et al.* (2005, p10) would probably describe it as “learning how best to react to circumstances we see ourselves as having had no hand in creating”.

As explained in Section 1.1, this research seeks to better understand the potential for social learning that can advance rhinoceros anti-poaching in iMfolozi Game Reserve. Within the motivation in Section 1.3 the question was asked as to how well disposed are the conservation law enforcement role players to social learning? Leading on from this question, the broad intent of this study was then to gain some knowledge of the thinking patterns of the law enforcement roleplayers within EKZNW at iMfolozi. Through the application of these findings it is hoped that EKZNW will be in a position to improve the rhinoceros anti-poaching activities. The aim of this research as stated in Section 1.5 was to investigate the appropriateness of a social learning theory that will enable future anti-poaching efforts to be informed by a deeper understanding and which in turn is able to guide more appropriate and effective responses, than is currently the case.

The conclusions are presented below and they are arranged according to the three main capacity stages of Theory U, as depicted in Figure 10. These capacity stages are sensing, presencing and creating.

5.2 Sensing

Following Senge *et al.* (2005) sensing is described as – the ability and willingness to transform perception. This means being able to describe and

reflect on mental models and re-direct one's thoughts to the potential for a revision of one's mental model.

Senge *et al.* (2005, p37) when writing on sensing speak of the “courage” required to suspend i.e. to articulate one's thoughts as well as “personal work” referring to the ability to be more aware of one's thoughts. Within the context of the interviews conducted, it is recognized that the interviewees would perhaps not need to have the same courage as when thoroughly suspending their views in front of superiors and other colleagues, who could potentially be hostile to such views. Senge *et al.* (2005) go on to state that it is not the ability that matters as much as the willingness to cultivate an awareness of one's thoughts and views. Through the acquisition of information from the interviewees a definite trend was identified. This trend showed itself from the junior ranking staff all the way through to the senior iMfolozi management staff interviewed. The trend was indicative of a strong willingness and a high degree of capability by these law enforcement roleplayers selected to engage in the sensing phase of Theory U and in so doing, positively advance downwards through the left hand side of the Theory U movement. Some of the responses noted in Table 5 indicate some variation in the strength of some of the roleplayers, in their willingness to transform their perceptions. A general theme that emerged was that some interviewees felt that with an increase in rank came an increase in accountability and therefore some of the lower ranking roleplayers were not forthcoming in their willingness to transform their ideas on rhinoceros anti-poaching strategies. This was possibly due to the fact that the lower ranking roleplayers felt that they were merely to follow orders coming from higher ranking roleplayers.

5.2.1 Conclusions on Sensing

The dominant indication as to the strength of willingness and the degree of capability for the selected roleplayers who are all anti –poaching officials to transform their perceptions as indicated in Section 4.3 (Table 5) is strongly positive. The law enforcement roleplayers progressed well through the left hand side downward movement of the U as shown Figure 10 in Section 4.3. The

overall propensity for these roleplayers to engage in this aspect of dynamic social learning, investigated as per Objective 3 in Section 1.5, was strongly positive. The law enforcement roleplayers were both fully willing and capable to suspend their views on modern rhinoceros poaching and in so doing, start advancing through the mental transformation phase of Theory U.

5.3 Presencing

Following Senge *et al.* (2005) presencing is described as the ability and willingness to transform self and will. This means letting go of previously held aspects of one's mental models and letting new aspects come in.

As individuals, the interviewees all exhibited various degrees of the capability to let go. The fact that all the interviewees function within a rigid hierarchal structure with formalized ranks and titles and have subsequent institutionalized backgrounds did manifest itself in their responses and indications of a weakening willingness to let new ideas come in to their mental models became noticeable. Some individuals explained that transforming themselves and their thoughts on rhinoceros anti-poaching strategies within the confines of a secure interview was easier for them than when they were in the organizational environment as explained in Section 5.2. The culture of a particular maxim held by EKZNW with regards to Standard Operating Procedures was evident in the responses noted by the researcher during this phase of the interview. The researcher was constantly reminded of the Standard Operating Procedures governing the behavior of law enforcement roleplayers with regards to rhinoceros anti-poaching in iMfolozi. Letting go, interestingly, was easier for roleplayers of junior and middle management ranks as they carried less accountability for strategic decision making and the actions that come commensurate with new decisions which could be external to the Standard Operating Procedures. Explained in another way, the higher ranking roleplayers who are all anti – poaching officials in the law enforcement field have been enforcing a particular system for a number of years and it would therefore be more difficult for them to acknowledge that perhaps some of their views may have been incorrect. Although this would seemingly pave the way for a transformation of their selves and wills, they still

exhibited an institutional inertia in that they were governed by the programmed reactive ways of thinking dictated by established behavior guidelines in the form of the Standard Operating Procedures. Interviewee D (Appendix C), a middle management candidate who had been officially mandated to network and to interact with roleplayers external to Ezemvelo , did show his affinity to subconsciously engage, more strongly than the other interviewees in the core capacities of letting go and letting new ideas come in. He was markedly more able to resist any absencing behaviors that became subtly evident when the researcher noted the responses of the other interviewees.

5.3.1 Conclusions on Presencing

Amongst the candidates interviewed, there is a positive progression downwards through the left hand side of the U movement. This is encouraging because they all currently have a leadership function at various levels, within iMfolozi Game Reserve, with regards to law enforcement operations and strategizing. As indicated in Section 4.3, the left hand side of the U is synonymous with the transformation of the mind through both sensing and presencing. In this study, the researcher noted that with the transition from the mental transformation in letting go and letting new ideas come in to the physical and action orientated transition evolving out of letting new ideas come in, there was a change in the strength of the willingness to do so. The interviewees indicated that communication does occur but not in an open and shared context. Their respective capability to communicate with trusted colleagues was evident as shown in Appendix C, but their willingness to do so in a manner that would generate the activities associated with letting go and letting new ideas come in, was minimal. Absencing behaviors applied to a specific interviewee as indicated in Appendix C (interviewee F) who had arguably been treated unfairly by EKZNW, in the recent past. The interviewee felt that disinformation and conspiracy was used to suppress innovation that had contradicted Standard Operating Procedures, This factor had negatively affected the interviewee's willingness to openly share, within the organization, any new ideas that he had let come in.

5.4 Creating

Following Senge *et al.* (2005), creating is described as the ability and willingness to transform action. This means being able to crystallize ones thoughts and translate these into prototype actions and then institutionalize these actions, by engaging in them more widely in the institution.

Situated on the right hand side upward movement of the Theory U curve, creating or realizing as it is sometimes called, has need of individuals to be allowed a degree of latitude, from the organization, as they engage the core action oriented capacities of crystallizing, prototyping and institutionalizing. It was evident from the interviews that this latitude to act differently, when required, was not forthcoming from the organization. Interviewees expressed concern at being targeted as being obstructive by EKZNW because of their new views. Despite being continuously pressed into thinking “outside the box” by many of the same people who stifle innovation. As reflected in Appendix C, this concern manifested in their lack of willingness to engage in open creative actions.

Emerging from the interviews was an overall sense that the interviewees were capable of participating in crystallizing, prototyping and institutionalizing actions. However, they said that they did not engage in these actions because of concerns that EKZNW had the potential to manipulate or abuse them if they were to be seen to be obstructive in challenging the accepted norms which were manifested in the form of Standard Operating Procedures. The interviewees explained that despite the fact that they may present their new views in a non-confrontational manner; the suggested actions would not be well received. Interviewees felt that some higher ranking roleplayers deliberately label lower ranking roleplayers who are all anti – poaching officials who advocate creative change as being obstructive in an attempt to avoid having to take the proposed new actions seriously. Noticeably though, the middle management interviewee that has been officially tasked to engage with external law enforcement roleplayers showed far less concern or sense of vulnerability, in this regard. He was not concerned with the retribution in the form of blame that suggested new

actions could engender. He would therefore engage with the core capacities of crystallizing, prototyping and institutionalizing without trepidation from potential absencing behavior from his seniors in EKZNW.

5.4.1 Conclusions on Creating

Transforming actions which could improve rhinoceros security have been impeded by the organisation according to the roleplayers who are all anti – poaching officials interviewed in this study. Interviewees explained that they were not willing to be involved in initiating prototyping and institutionalizing actions unless permission was received in the form of written instructions. Interviewees felt that they would be victimized by a hierarchy that was alienated from the genuine needs of conservation law enforcement officers, involved with anti-poaching activities. As discussed previously, the roleplayers interviewed in this survey, want to function within an environment of creative emergence. However, their responses indicated, as reported in Appendix C, that the organisation and system they find themselves in is prone to potentially engaging in absencing type behaviors. This tendency by EKZNW made the interviewees unwilling to transform their actions through progressing upwards through the right hand side of the U movement. As an example selected to illustrate the point, interviewees felt that if rhinoceros security roleplayers in iMfolozi Game Reserve were positively influenced to progress up the right hand side of the U, then operations and strategizing could advance beyond the now curtailed and limited picket patrol system of short day patrols. Such patrols have predictabilities and weaknesses which render them ineffective, as the statistics show. New conservation law enforcement dynamics in rhinoceros anti-poaching needs to be established. Predictable patrol patterns, minimal ground coverage and low law enforcement presence as well as unrestricted information leakage to the criminal element could be greatly reduced. More freedom to engage in innovative actions would have afforded the conservation law enforcement roleplayers the opportunity to reinvest in transformation of law enforcement activities. Innovatively transformed law enforcement activities would most probably result in successes and the resultant credibility would give merit to the transformation process continuing as indicated in Figure 9.

The various interviewees, including the middle management interviewee, who has been authorized to interact with external roleplayers, all indicated that they have the capability to transform action. However, they do not have the willingness to do so due to their operating environment being overshadowed by absencing cycle type behaviors within the management of iMfolozi.

5.5 Summary of Conclusions

It is evident that in the present era of poaching as described in Section 2.3, a protected area, such as iMfolozi Game Reserve, requires the formulation of innovative counter- poaching plans. Although forming the backdrop for authorities to formulate counter-poaching plans, the efficacy of the law enforcement effort as determined by the law enforcement roleplayers strictly adhering to set paradigms, will on its own, not suffice to effectively curb the problem. Rather, an appreciation for the factors affecting law enforcement efficacy and poacher *modus operandi* should be at the forefront of counter-poaching planning, operations and strategizing.

Whilst the Interviewees showed themselves to be capable and willing to engage in the capacities necessary to increase and deepen understanding it is advised that they need to resist the temptation to resort to absencing behaviors when faced with the challenges of acting according to the capacities on the right hand side of the U. An interesting result of the research process was the transformation of the researcher's approach to viewing complex problems. The 'lenses' acquired through the learning process of conducting the literature review have inadvertently transformed the way that the researcher is viewing rhinoceros poaching and all the complexities that exist in tandem with it. The effects of the community of practice function have further entrenched the applicability of networking, coupled with cohesive and collaborative approaches to countering rhinoceros poaching in Zululand, in the researcher's mind.

The only interviewee that had been officially mandated to engage with multiple external roleplayers with regards to law enforcement, showed a stark contrast in his willingness to employ the core capacities positioned on the upward arm of the

U movement. His propensity for creating synergies and optimizing operational and strategic alliances with relevant roleplayers as referred to in Section 2.2 was obvious. Equally obvious was his sense of freedom to do so without fear of retribution from any absencing behaviors, by those senior to him. The other interviewees had, within their respective organizational positions, been informed that engaging with multiple external roleplayers freely was in fact in contravention of Standard Operating Procedures for law enforcement in the reserve.

The interviews revealed that in the current environment of rhinoceros poaching and counter-poaching, confusion, indecision and anxiety appear to be commonplace when faced with striving to progress through the upward, action arm of the U. The presence of absencing cycle type behavior in EKZNW became evident and contrary to the suggestions of Wheatly (2006), information was not being circulated freely for multiple individuals to interpret it.

As described in Section 2.2, there are Government Outcomes which EKZNW has embraced and adopted through its Five Year Strategic Plan and Performance Plan 2009-2014, (EKZNW, 2009, p7). These outcomes stress the importance of 'creating synergies', 'integrating information' and 'managing organizational risks'. To achieve these and other outcomes, EKZNW has established a set of Core Values which it encourages all employees to engender. Commitment, innovation, excellence and teamwork as well as respect are some of the attributes which EKZNW requires from the iMfolozi law enforcement anti – poaching roleplayers. It is envisioned that all these factors would then culminate in productive action which would move the organization forward through productivity. In iMfolozi there is action taking place but it is reactive action which does not lead to deeper understanding and learning and hence, more effective actions as shown in Figure 5.

The rhinoceros security incidents presented in Figure 3, Section 2.3, suggest that currently the factors pertaining to law enforcement efficacy employed by EKZNW within iMfolozi Game Reserve are not progressively addressing the surge in rhinoceros poaching. The current practice of conservation law enforcement is slow and ineffective with regards to information availability and use of this

information by EKZNW. In comparison, the extent of information about law enforcement movement and plans, that is available to the poachers, is rendering conservation law enforcement far less effective as the statistics show. As (Altbeker, 2007, p28), states, “crime fighting is a never-ending game of cat and mouse, there are no final victories to be achieved only temporary advances and retreats”. The statistics indicate that the poachers have advanced much more than the law enforcers in iMfolozi. Simply stated – the tempo at which law enforcement change has been embraced internally within the iMfolozi Game Reserve has not measured up to the rate at which the poaching element, external to the reserve, has changed. It is a matter of deep concern to anti-poaching roleplayers that law enforcement lags behind the innovations of poachers. If such a lag persists then tiresome and frustrating reactive follow up after rhinoceros carcasses will remain the order of the day.

More resources, such as manpower and or equipment, which is often seen by the law enforcement roleplayers in iMfolozi as obvious, is not adequate on its own. Profound, innate change by law enforcement roleplayers in iMfolozi as was noted as emerging from the interviews is necessary. The profound change that is demanded is learning to generate innovative approaches in new, collective ways. In short, *co-sensing*, *co-presencing* and *co-creating* involve both inner and outer shifts in a continuous social learning process.

5.6 Recommendations

This mini-dissertation served as a qualitative probe into the wisdom of using Theory U social learning model as a guide to transformative thoughts and actions so necessary when engaging the complex problem of present day rhinoceros poaching in the iMfolozi Game Reserve. An organisation needing to tackle complex problems such as rhinoceros poaching needs to be opening themselves up to responsible innovations in various ways, especially with regards to information creation and management. The responsible and affordable dissemination of information is paramount as Wheatley (2006) explains; information must be sought from everywhere including places and sources that have not been considered before. Equally important is the fact that this information should be circulated freely for multiple individuals to interpret it.

According to Wheatley (2006, p83), the objective of this information is to “keep the system off balance” and “alert to how it might need to change”. Wheatley (2006, p85) states that “when an organisation knows who it is, what its strengths are, and what it is trying to accomplish, it can respond intellectually to changes from its environment”. It is recommended that those responsible for anti-poaching interventions in iMfolozi certainly need to take heed of Wheatley’s statements.

EKZNW must endeavor to strive to create a culture in which the Presencing Cycle is dominant and Absencing behaviors occur rarely. These recommendations are ironically, fully aligned with the EKZNW Core Values as indicated in Section 2.2 and the fact that EKZNW must deliver on a set of objectives as laid out by their Five Year Strategic Plan (EKZNW, 2009, p5). The set of objectives with which EKZNW aligned their Five Year Strategic Plan and Performance Plan, are, “aligned with the Republic of South Africa government priorities” (EKZNW, 2009, p7). It is recommended that the resulting withdrawal into deeply entrenched patterns of thinking and operating in conservation authorities needs to be curbed and replaced by responsible but innovative prototyping and institutionalizing of actions.

Certainly EKZNW has some of the best “human capital” as indicated in Section 2.2 but it is recommended that they need to be aware of the repercussions of the present absencing cycle when attempting to “increase employee satisfaction” as mentioned in Section 2.2. It is tempting to include a critical narrative on how absencing may have developed within the organisation. Equally tempting is the listing of the various forms that this may have taken. As indicated in section 2.7.3, absencing most certainly was influential. However, the points raised, were not pursued in detail, because it was felt that it would affect the objectivity and focus of the study. These factors were not explored in the interview process and hence could best be described as a general sense that the organisation was operating primarily in the absencing cycle.

It is recommended that Ezemvelo should strive to develop and support its core value of innovation, that is- “being an adaptable organisation that embraces the

culture of creativity and learning” (EKZNW, 2009, p33) as shown in Section 2.2 as a major pillar of its strategy for dealing with the complex problem of present day rhinoceros poaching. EKZNW as an organisation needs to actively embark on recognizing the value of its human potential. The negative and eroding effects of an identified absencing cycle can be countered. It could be recommended that absencing be addressed by the executive. However, as a strategic and specifically rhinoceros security tactical intervention – EKZNW as an organisation should strive for and allow creativity without retribution. The net result would be an infectious movement towards thinking out the box and experimenting in all matters pertaining to rhinoceros anti-poaching. If as an organisation, EKZNW could purposefully aim to emphasize the importance of their core value of ‘creativity’, then the frequency of absencing type behaviors and the effects of them, would diminish.

REFERENCES

Altbeker, A. 2007. *A Country at War with Itself. South Africa's Crisis of Crime*. Jonathan Ball Publishers. p28.

Arcese, P. Hando, J. and Campbell, K. 1995. Historical and Present-Day Anti-Poaching Efforts in Serengeti. In Serengeti II. *Dynamics, Management and Conservation of an Ecosystem*. (Eds. A.R.E. Sinclair and P. Arcese). The University of Chicago Press. p507- 533.

Armitage, D. Marschke, M. and R. Plummer. 2008. Adaptive co-management and the paradox of learning. *Global Environmental Change*. Vol 18. p86-98.

Berkmuller, K. 1992. *Environmental Education about the Rainforest*. IUCN, Gland, Switzerland.

Broad, S. 2008. TRAFFIC Bulletin. *Editorial*. Vol.21 No.23. p89.

Brockelman, W.Y. Griffiths, M. Rao, M. Ruf, R. and Salafsky, N. 2002. Enforcement Mechanisms. In *Making Parks Work: Strategies for Preserving Tropical Nature* (Eds. Terborgh et al.) Island Press, London. p265-277.

Brooks, M. 2004. *African Rhinoceros Specialist Group report*. Pachyderm. Number 37. p11.

Bruner, A.G. Gullison, R.E., Rice, R.E., and da Fonseca, G.A.B. 2001. *Effectiveness of Parks in Protecting Tropical Biodiversity*. Science, p291, p125-128

Coetzee, F. 2010. *Devastating wave of rhinoceros poaching hits South Africa*. Environment – People and Conservation in Africa. Issue 3. p33.

Conway, A, J, Yule, T, M. and Verster, A. 1992. *Anti-Poaching Training Manual*. Natal Parks Board.

Diamond, J.M. 1975. *The Island Dilemma: Lessons of Modern Biogeographic Studies for the Design of Nature Reserves*. Biological Conservation 7, p3-15.

EKZNW, Undated. *Ezemvelo Strategy*. Accessed on 19/09/2011 Available at: <http://www.kznwildlife.com/index.php?/Ezemvelo-strategy.html>.

EKZNW, Undated. *Ezemvelo Identity*. Accessed on 19/09/2011 Available at: <http://www.kznwildlife.com/index.php?/Ezemvelo-Identity.html>.

EKZNW. 2008. Integrated Management Plan, 2008 to 2013. Internal publication. EKZNW, Pietermaritzburg.

EKZNW, 2009. *Five Year Strategic Plan and Performance Plan 2009-2014* Internal publication. p5. EKZNW, Pietermaritzburg.

EKZNW, 2011. *Integrated Management Plan: Hluhluwe-iMfolozi Park, South Africa*. Ezemvelo KZN Wildlife, Pietermaritzburg.

EKZNW, 2012a *iMfolozi Game Reserve Wildlife Protection Management Strategy*. Internal publication. Annexure 7.

EKZNW, 2012b. Proposal for funding. *Rhino Security Intervention Plan*. Internal publication. p3.

Fazey, J.A. and F. Marton 2002. *Understanding the space of experiential variation*. Active Learning in Higher Education Vol 3. p234-250.

Framework Agreement for the Settlement of the Hluhluwe Corridor Game Reserve Land Claim. 2007. Entered into in terms of Section 42D of the Restitution of Lands Act, 1994. Signed at Hluhluwe-iMfolozi Park. 8 June 2007.

Goodman, P.S. 2002. *A Rapid Assessment of Terrestrial Protected Area Management Effectiveness in KwaZulu-Natal, South Africa*. Internal publication. EKZNW, Pietermaritzburg.

Heinen, J.T. 1996. *Human Behavior, Incentives and Protected Area Management*. Conservation Biology, 10 (2), p681-684.

Hilton-Taylor, C. 2000. *IUCN Red List of Threatened species*. International Union for the Conservation of Nature. Gland, Switzerland

Hockings, M and Phillips, A. 1999. *How well are we doing? – Some thoughts on the effectiveness of protected areas*. PARKS, Vol. No. 2 p5-14. Published by World Commission on Protected Areas (WCPA) of the IUCN – World Conservation Union.

Hughes, R.G. 2002. *An Application of GIS and GPS to Enforcement “Targeting”*. Paper presented at 9th ITS World Congress Chicago, October 14-18. Illinois, USA.

Jocher, K. 2006. *The Case Method in Social Research*. In: David, M. (Ed). Case Study Research, Vol 1. Sage, London: p39-53

Kumar, K. 2009. *Poverty Alleviation by Local Government: Are we doing enough?* Imfo Magazine. Vol.10. No. 2. p28-30.

Leader-Williams, N. Harrison, J. and Green, M.J.B. 1990. *Designing Protected Areas to Conserve Natural Resources*. Scientific Progress, 74, p189-204.

Martin, E. and Vigne, L. 2008. *Yemen’s attitude towards rhinoceros horn and jambiyas*. Pachyderm. Number 44.p45.

Memorandum of Agreement between DEAT and DLA Ministers. iMfolozi Game Reserve. 2007. Amended 15 February 2007. Signed at Pretoria on 13 April 2007.

Michler, I. 2008. *Tip of the Horn*. Africa Geographic. Vol. 16. No. 8. p31.

Miles, M. and Huberman, A. 1994. *Qualitative Data Analysis*. California, Sage Publications.

Milledge, S. A. H. 2007. *Illegal killing of African rhinos and horn trade, 2000-2005: the era of resurgent markets and emerging organized crime*. Pachyderm. Number 43.p96

Monette, D. Sullivan, T. and DeJong, C. 2002. *Applied social Research: Tool for the Human Services*, 5th ed. Harcourt, Orlando, Florida.

Morgan, P. 2005. *The idea and practice of systems thinking and their relevance for capacity development*. European Centre for Development Policy Management. p12

Myers, N. Mittermeier, R.A. Mittermeier, C.G. da Fonseca, G.A.B and Kent, J. 2000. *Biodiversity Hotspots for Conservation Priorities*. Nature, 403, p853-858.

National Strategy for the Safety and Security of Rhinoceros Populations in South Africa. 2011. Department of Environmental Affairs. Republic Of South Africa

Oates, J.F. 1997. *Myth and Reality in the Rain Forest. How Conservation Strategies are Failing in West Africa*. University of California Press, Berkeley.

Reed, M. S. Evely , A. C. Cundill, G. Fazey, I. Glass, J. Laing, A. Newig, J. Parrish, B. Prell, C. Raymond, C. and Stringer, L. C. 2010. *What is Social Learning ?* p5. Ecology and Society XX(YY): rZZ
URL:<http://www.ecologyandsociety.org/volXX/issYY/artZZ/> Accessed 20 September 2012

Scharmer, C. 2009a. *Leadership development is not about filling a gap but about igniting a field of inspired connection and action ten propositions on transforming the current leadership development paradigm*. Paper prepared for: Round Table Meeting On Leadership For Development Impact. The World Bank, The World Bank Institute, Washington, DC. September 27- 28, 2009 draft 1.1, (revised Oct. 5, 2009)

Scharmer, C. 2009b. *Theory U Leading from the Future as it Emerges*. Berrett – Koehler, San Francisco

Senge, P. Roberts, C., Ross, R. B. Smith, B. J. and Kleiner, A. (1995) *Vth Discipline Fieldbook: Strategies and tools for building a learning organisation*. Nicholas Brearly, London.

Senge, P. Kleiner, A., Roberts, C. Ross, R. Ross, G. and Smith, R. 1999. *The Dance of Change: The Challenges of Sustaining Momentum in Learning Organisations*. A Fifth Discipline Resource. Nicholas Brealey Publishing. United Kingdom

Senge, P. Otto Scharmer, C. Jaworski, J. and Flowers, B. S. 2005. *Presence: Exploring profound change in people, organizations and society*. Nicholas Brealey Publishing. London. p214.

Smith, R.J. Muir, R.D.J. Walpole, M.J. Balmford, A. and Leader-Williams, N. 2003. *Governance and the loss of biodiversity*. Nature 426, p67-70

Stake, R. 1995. *The Art of Case Study Research*. Sage, London.

Struhsaker, T.T. Struhsaker, P.J. and Siex, K.S. 2005. *Conserving Africa's rain forest: problems in protected areas and possible solutions*. Biological Conservation, 123, p45-54.

Van der Westhuizen, H. J. 2007. *Evaluating law enforcement and illegal wildlife use in the northern Luangwa Valley, Zambia*. Durrell Institute of Conservation and Ecology. University of Kent. England p3.

Welman, .C. Kruger, F. and Mitchell, B. 2005. *Research Methodology*. 3rd ed. Oxford University Press Southern Africa. Cape Town

Wells, M.P. Brandon, K.E. and Hannah, L. 1992. *People and Parks: linking protected area management with local communities*. The World Bank, WWF and USAID, Washington DC.

Wenger, E. 2009. *Social Learning Capacity*. Four essays on innovation and social learning in social learning systems.

URL:<http://wengertrayner.com/resources/publications/essays-on-social-learning-capability/> Accessed on 19 September 2012.

Wheatley, M.J. 2006. *Leadership and the New Science. Discovering Order in a Chaotic World*. Berret – Koehler, San Francisco.

Wildemeersch, D. 2007. *Social learning revisited: Lessons learned from north and South*. In: A. Wals (Ed.) *Social Learning: Towards a Sustainable World*. Wageningen Academic Publishers: Wageningen, p99-116.

Yin, R. 1994. *Case Study Research: Design and Methods*. Applied Social Research Methods Series. Volume 5. 2nd ed. Sage, London.

APPENDIX A – SELECTION OF KEY INTERVIEWEES

Due consideration for the confidentiality and anonymity of the iMfolozi law enforcement roleplayers had to be taken cognizance of.

Title/Designation within iMfolozi law enforcement structure	EKZNW rank and position designation – excluded to preserve anonymity	Name – not recorded to preserve anonymity
Junior iMfolozi management	Interviewee A	
Middle iMfolozi management	Interviewee B Interviewee C Interviewee D	
Senior iMfolozi management	Interviewee E - Could not use this data Interviewee F	

APPENDIX B – SEMI STRUCTURED INTERVIEW GUIDE

The purpose of these questions is to assess the extent to which key stakeholders have been unknowingly and instinctively operating in accordance with Theory U type processes and to explore whether key stakeholders have the potential to engage in dynamic social learning as framed by the Theory U paradigm.

To explore whether key stakeholders have the potential to engage in dynamic social learning as framed by the Theory U paradigm with regards to Sensing in the context of rhinoceros anti poaching strategising	
1.	What is your view of the current rhino poaching situation in iMfolozi?
2.	How do you process alternative views and perceptions?
3.	With who have you shared this view?
To explore whether key stakeholders have the potential to engage in dynamic social learning as framed by the Theory U paradigm with regards to Presencing in the context of rhinoceros anti poaching strategising.	
4.	What other views have you heard?
5.	Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?
To explore whether key stakeholders have the potential to engage in dynamic social learning as framed by the Theory U paradigm with regards to Creating/Realising in the context of rhinoceros anti poaching strategising.	
6.	How do rhino anti-poaching strategies get transferred into actions currently?
7.	How could the process of thoughts to actions be improved?
8.	How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Figure attached to semi-structured interview sheet as a visual reference for the researcher to utilize when listening to the dialog and making key notes with the interviewee's consent.

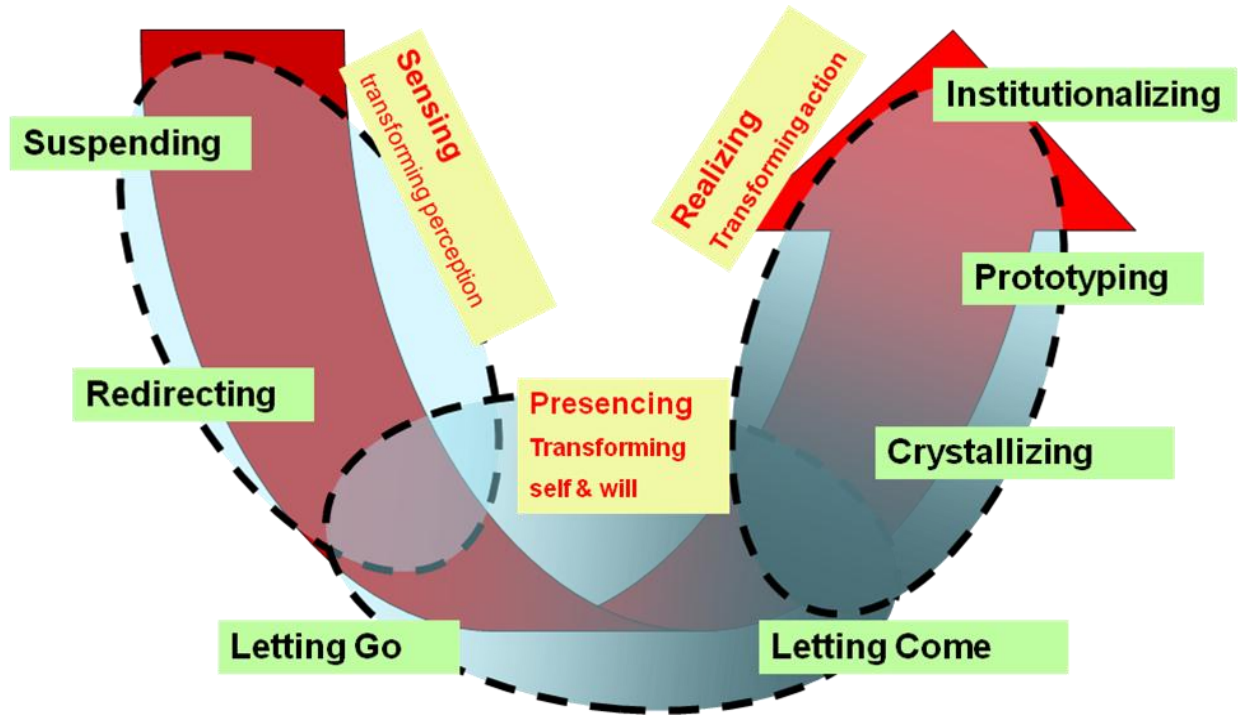


Figure 7. The U movement of transformation (after Senge *et al*, 2005, p 219)

APPENDIX C – ANALYSIS OF INTERVIEWEE RESPONSES

This appendix has been constructed by listing the individual interviewee responses as recorded by the researcher during the interview process and subsequently analyzed. The analysis is embedded in an abridged text of the responses. A total of 40 responses were recorded. This number was made up of 8 questions each which was placed before the 5 interviewees. Eight of these responses have been included in Chapter 4. They are highlighted in this Appendice. The remaining 32 are presented below in this Appendix C, where they are organized in the following groupings.

Questions on Sensing – transforming perceptions

- Presented to Junior iMfolozi Management interviewee
- Presented to Middle iMfolozi Management interviewees
- Presented to Senior iMfolozi Management interviewees

Questions on Presencing – transforming self and will

- Presented to Junior iMfolozi Management interviewee
- Presented to Middle iMfolozi Management interviewees
- Presented to Senior iMfolozi Management interviewees

Questions on Creating – transforming action

- Presented to Junior iMfolozi Management interviewee
- Presented to Middle iMfolozi Management interviewees
- Presented to Senior iMfolozi Management interviewees

White boxes indicate where a selected response has been presented in Chapter 4. Note that senior management interviewee E's data could not be used and is not considered in this research. It is highlighted in Table 1 –C below to indicate that data's exclusion.

Table 1 – C. Categorical orientation of interview questions

Sensing – transforming perceptions	Junior iMfolozi management – Interviewee A	Q1	Q2	Q3					
	Middle iMfolozi management – Interviewee B	Q1	Q2	Q3					
	Middle iMfolozi management – Interviewee C	Q1	Q2	Q3					
	Middle iMfolozi management – Interviewee D	Q1	Q2	Q3					
	Senior iMfolozi management – Interviewee E	Q1	Q2	Q3					
	Senior iMfolozi management – Interviewee F	Q1	Q2	Q3					
Presencing – transforming self & will	Junior iMfolozi management – Interviewee A				Q4	Q5			
	Middle iMfolozi management – Interviewee B				Q4	Q5			
	Middle iMfolozi management – Interviewee C				Q4	Q5			
	Middle iMfolozi management – Interviewee D				Q4	Q5			
	Senior iMfolozi management – Interviewee E				Q4	Q5			
	Senior iMfolozi management – Interviewee F				Q4	Q5			
Creating – transforming action	Junior iMfolozi management – Interviewee A						Q6	Q7	Q8
	Middle iMfolozi management – Interviewee B						Q6	Q7	Q8
	Middle iMfolozi management – Interviewee C						Q6	Q7	Q8
	Middle iMfolozi management – Interviewee D						Q6	Q7	Q8
	Senior iMfolozi management – Interviewee E						Q6	Q7	Q8
	Senior iMfolozi management – Interviewee F						Q6	Q7	Q8

	Interviewee E								
	Senior iMfolozi management – Interviewee F						Q6	Q7	Q8

The standard table that has been designed to present a summarized assessment of the responses in terms of Willingness and Capability is explained in Section 3.7.4 of the main text. The Theory U curve is referred to often in these analyses. The reader is reminded that this curve can be found in Figure 6, Section 2.7.2.

Questions on Sensing – transforming perceptions

- Presented to Junior iMfolozi Management interviewee

Interviewee A

Q1 - What is your view of the current rhino poaching situation in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee indicated a strong willingness and a high capability to suspend his views in an articulate manner. He presented a view that rhino anti-poaching is a complex and multi faceted problem that cannot be solved in any singular way. He was able to look at in the challenges from multiple angles and articulate these multiple views of the situation and problem. This indicates that his ability to suspend his views for others to see and understand is good. It also indicated that over time his views had matured and grown and become multifaceted which indicates a deepening of understanding. He even mentioned things that he had only ever heard about on the news. Using the new lenses of Theory U, it was possible to gauge that this interviewee was both willing and able to transform his perception on the complexity of the rhinoceros poaching problem. It was apparent that he had, in part, transformed his perceptions by suspending the problem and then viewing it from multiple angles. It also became apparent during the interview that his ability to suspend helped him to crystallize and later institutionalize his views.

Q2 - How do you process alternative views and perceptions?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High		X	

The interviewee indicated weak willingness to redirect but strong capability to re-direct. It was clear that he does process alternative views and is aware that alternative views do exist. Gauging his response within the framework of Theory U, the researcher ascertained that this interviewee was willing to redirect in that he was willing to listen to alternative views on the complexity of rhinoceros poaching and consider other ways of conducting operations indicating an ability to articulate his actions or more specifically, co-create by transforming his actions. Linear reasoning and adherence to a ranking structure within his work environment does not allow for enacting alternative views though and the researcher could conclude from his body language that he was starting to get uncomfortable with voicing alternative views as it might bordering on insubordination. The interviewee was able to transform his will through presencing but as discussions proceeded the researcher could deduct that the interviewee would not act outside of established standard operating procedures. The interviewee could certainly crystallize what actions needed to be taken but through subtle observations, the researcher could the interviewee was not comfortable enough to prototype and institutionalize his actions. His behavior indicated that he could be subject to the negative effects of absencing behavior.

Q3 - With who have you shared this view?

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The researcher could gauge that the interviewee had no willingness to let go. The interviewee displayed an average capability to let go though. The researcher noted that this could be as a

result of institutional conditioning as he is a junior ranking staff member and his behavior is regulated by an established and officially enforced rank structure. There is a limited 'freedom' in a structure like that to let go. The researcher observed that the interviewee had the ability to realize that there were more views than just his or even his superiors' but he was not willing to express his different or transformed perception because it could be in conflict with the standard law enforcement view. This observation from the researcher resulted in other discussion and through this dialog the researcher, using the lenses of Theory U recorded that the interviewee was not willing to transform his self/will due to the threat of manipulation from higher ranking staff who did not share his outlook. The interviewee was however able to let go, and to let come as long as he did not have to make himself vulnerable to the abusing effects of superiors who might act in an absencing manner towards an individual who made it known that he was "foreign" ideas into his mind. He indicated that he would not verbally iterate the transforming of his will through letting come - new ideas and thoughts on rhinoceros anti-poaching strategizing. Due to the linear nature of the organization that he works for, he has not been afforded the circumstances within which to let go because that would incur a need for a level of vulnerability which, due to the presence of an absencing cycle, he cannot afford.

- **Presented to Middle iMfolozi Management interviewees**

Interviewee B

Q1 - What is your view of the current rhino poaching situation in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

Previous discussions with the interviewee have revealed that he has both the willingness and the capability to suspend the issue of rhino anti-poaching in iMfolozi. The interviewee displayed a strong willingness and a high capability to suspend. He gave a view that rhino anti-poaching is complex and multi faceted problem that cannot be solved in any singular way. The researcher noted that the interviewee naturally migrated downwards through the U movement and that transforming his perceptions as to what constituted the current rhinoceros poaching threat was easy. An interesting note made by the researcher during the interviewee was that this particular interviewee had not been serving as a law enforcement role player in iMfolozi for a long period of

time and that he was probably not always aware of what the old paradigms of rhinoceros security were. He was however subjected to the current Standard Operating Procedures which he has to abide by and implement.

Q2 - How do you process alternative views and perceptions?

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The researcher recorded the interviewee as having no willingness to re-direct and only an average capability to re-direct. The interviewee explained that when considering alternative views and perceptions he filters them all through his previous experience on the matter. He is not really concerned with rank or linear reporting but more that his opinions will be propagated after filtering other opinions on law enforcement and rhino anti-poaching through his own personal experience. This indicated to the researcher that although the interviewee could progress downward through the U movement by suspending with ease on his views on the current rhinoceros poaching situation in iMfolozi, he is not willing and only marginally capable to re-direct adequately. As explained before, he had not served for a long period of time in the law enforcement cadre of iMfolozi yet he would only attempt to re-direct through filtering all other views on rhinoceros security through his own experiences. The researcher noted that in making a mental 'mind shift', the interviewee was prone to judging the validity of transforming his perception by filtering all other views through his own experience which was meager. This would in turn, affect his ability to transforming his self and will through letting go and letting come.

Q3 - With who have you shared this view?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High		X	

The interviewee was recorded as having a high capability to let go but his willingness to do so was weak. The interviewee explained that he discusses anti-poaching issues with his fellow Section Rangers as well as corporals and other field rangers. He explained how when interacting with the anti poaching unit staff on an informal basis he shares his views as well as listens attentively to their views. Using the lenses of Theory U, the researcher determined that the interviewee certainly had the ability to engage in sensing through suspending well, re-directing relatively well and letting go. His advancement downwards through the U movement which engenders an essential mindset shift was however hampered by his willingness. Through dialog and a teasing out of various statements the interviewee made to the researcher, it was possible to glean that this interviewee had the ability to transform his perception and to let go by transforming his self and will. He was however only willing to do this once he had judged other views and perceptions and given them a validity according to his own experience with rhinoceros anti-poaching matters, which by his own admission was not substantial.

Interviewee C

Q1 - What is your view of the current rhino poaching situation in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee was recorded by the researcher as having a strong willingness and a high capability to suspend. He gave a view that rhino anti-poaching is complex and multi faceted problem that cannot be solved in any singular way. Amos explained that his view was that a single intervention (e.g. camping) was not going to solve the problem. The researcher expanded the dialog beyond the documented question and through this dialog the researcher constantly analyzed the interviewee's responses within the framework of Theory U. It was clear to the researcher that the interviewee was able to look at the complex problem of rhinoceros poaching in iMfolozi and the current actions by law enforcement staff and see that one, singular action would not prohibit rhinoceros from being poached. Both the interviewee's ability to suspend and re-direct was noted by the researcher using the lenses of Theory U.

Q2 - How do you process alternative views and perceptions?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The researcher recorded the interviewee as having both a strong willingness and a high degree of capability to re-direct. The interviewee explained that when considering alternative views and perceptions on rhinoceros poaching in iMfolozi, he looks at what interventions have already been conducted and if a new view presents itself he will grab it with both hands. The researcher continued the dialog by asking why the interviewee would grab a new idea with both hands and by gauging the interviewee's responses through the lenses of Theory U, the researcher was assured of the interviewee's willingness and ability to suspend and re-direct his views on rhinoceros poaching. The researcher noted that the interviewee had the ability to transform his perception through suspending and re-directing due to his acknowledgement that the problem of rhinoceros poaching is always changing with poachers using new tactics all the time which necessitated the law enforcement roleplayers to engage in new ways of thinking. The interviewee was able to let go of his perceptions and welcome new and different views on how to stop rhinoceros poaching.

Q3 - With who have you shared this view?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee was recorded by the researcher as having strong willingness and a high capability to transform his self and will through the core capacity of letting go and letting come. In sharing views with other roleplayers, the interviewee explained that he would do that within his circle of trust. The researcher noted though that the interviewee also explained that his circle of trust only extended to a select few of the conservation law enforcement roleplayers in iMfolozi. Using Theory U as a reference, the researcher continued to expand the dialog beyond the original question and through this noted that as the verbal conversation continued the interviewee's body language became more guarded. As the responses from the interviewee were noted, it was clear that he was

well disposed to migrating downwards through the core capacities of the U through transforming his perceptions on the complexity of the rhinoceros poaching in iMfolozi. Letting go was relatively easy for the interviewee and the researcher noted that a mind set change and increasing understanding was not difficult for this interviewee.

Interviewee D

Q1 - What is your view of the current rhino poaching situation in iMfolozi?

Capability	Willingness			
		None	weak	strong
	None			
	Average			
	High			X

. In answering this question, the interviewee explained that he was of the opinion that the complexity of modern rhinoceros poaching has evolved over time. He explained clearly that current rhinoceros poaching occurring in iMfolozi was indicative of a larger problem as rhinoceros poaching was spiraling out of control throughout Africa and certainly south Africa. He explained that countering this threat was going to need a multi-pronged approach and that rhinoceros poaching could not be solved in any singular way. The researcher gauged the interviewee's response through the lenses of Theory U and recorded the interviewee as having strong willingness as well as capability to suspend his thoughts on conventional notions of the current rhinoceros poaching occurring in iMfolozi.

Q2 - How do you process alternative views and perceptions?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee displayed a strong willingness and a high capability to redirect. In articulating his response the interviewee continued the dialogue beyond the initial answer of this question. The interviewee explained that he always considers other people's opinions and interacts with many stakeholders due to his job requirements. Upon prompting from the researcher, the interviewee

explained that his job description actually mandated him to engage with law enforcement role players external to EKZNW. The interviewee explained that “*there is no such thing as useless information*” and that he looks at a person’s background when listening to their alternative views and also tries to assess what it is that they are not saying, especially if they have experience in what they are talking about. Filtering these responses through the framework of Theory U, the researcher noted that the propensity for this interviewee to transform his perceptions on rhinoceros anti-poaching was very good and that the interviewee was both very willing and very capable of suspending and re-directing his perceptions while officially engaging with multiple roleplayers external to EKZNW.

Q3 - With who have you shared this view?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee expressed some frustration in answering this question as he explained that he is mandated by EKZNW to share his views with multiple law enforcement roleplayers but when sharing his views with the majority of the law enforcement roleplayers in iMfolozi, he has the impression that they are indifferent to anything new. The researcher expanded on this through dialog and noted that when gauging the interviewee’s answers, there was a strong inclination from the interviewee that he was in fact willing and capable to let go of any perceptions he had but that through doing this he does experience frustration from other roleplayers who are not willing to let go. The researcher noted through Theory U that this interviewee possessed strong willingness as well as capability to let go. Furthermore, the interviewee displayed both willingness and a capability to letting come and gauging from the content of the expanded dialog, the researcher was able to glean that the interviewee advanced through the downward movement of the U regularly and was open to constantly transforming both his perception and his will. As a stark contrast to this, the interviewee explained to the researcher that his interaction with some of the law enforcement roleplayers in iMfolozi led him to believe that they are not willing to step outside of and challenge Standard Operating Procedures. The researcher noted that this was because the other roleplayers were not willing to progress up the U curve because it involves action or overt behavior which can be noticed by an organisation which in turn could direct absencing type behavior to the employee. When questioned as to why this phenomenon might occur, the interviewee explained to the

researcher that perhaps the iMfolozi rhinoceros security roleplayers were scared or anxious as to what might happen to them if they did.

Interviewee F

Q1 - What is your view of the current rhino poaching situation in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

This interview was conducted due to the fact that one of the original roleplayers identified in the interview selection process refused to follow the interview process as requested by the researcher. The researcher then proceeded to declare that interview invalid in terms of the methodology of this study and proceeded to identify this interviewee and conduct the interview.

With regards to answering this question the researcher noted that the interviewee indicated a strong willingness as well as capability to suspend his views and thoughts on the complexity of rhinoceros anti-poaching in iMfolozi. During the dialog which ensued during the answering of this question, the interviewee explained that the poaching problem was market driven and that unless that changed, nothing will. He stated that staff corruption was rife, politics enjoyed a higher priority than nature conservation and that due to that and there are an infinite no. of people that are prepared to poach. He explained that all efforts are reactive and stated that all crime in SA is rampant and very complex to address and so it is mirrored in the current poaching arena. The researcher noted the answers and based on this and further dialog at this point, the interviewee was recorded as having a strong willingness and a high degree of capability to suspend and transform his perceptions.

Q2 - How do you process alternative views and perceptions?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

The interviewee explained that he processes alternative views and perceptions by listening and engaging with other law enforcement roleplayers who are facing the same challenges as iMfolozi game reserve with regards to rhinoceros poaching. He explained to the researcher that he enjoys listening to other views as it helps him with formulating plans as to how best to counter the rhinoceros poaching element's and their tactics. The researcher noted that the interviewee, throughout the dialog was enthusiastic to consider new and 'fresh' ideas and indicated that his willingness and capability to re-direct was strong. The researcher proceeded to continue the dialog in terms of why the interviewee felt that it was important to plan differently and through this dialog, the researcher further noted that the interviewee was comfortable with transforming his perceptions through questioning and keenly observing what other rhinoceros anti-poaching roleplayers were doing country-wide to try and stop rhinoceros poachers from depleting numbers.

Q3 - With who have you shared this view?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

During the dialog resulting from answering this question, the researcher noted a subtle change in the interviewee's body language and behavior. When formulating his answer the researcher noted that the interviewee explained that he was comfortable with sharing his views with colleagues in the field but would only share his views with EKZNW staff in higher positions whom he knew personally as friends. The researcher expanded the dialog on this point questioning the interviewee as to why he felt this way and the interviewee responded by explaining that views and information on rhinoceros poaching was sensitive and that he felt that EKZNW as an organisation would not tolerate any of its employees sharing views on rhinoceros security matters that were not exactly in

line with theirs. Filtering the extended dialog with regards to this question through the lenses of Theory U, the researcher noted that this role player had a strong ability to transform his perceptions through suspending and re-directing his thoughts and views on rhinoceros poaching as well as letting go of previously held ideas. The researcher recorded the interviewee as having a strong willingness to transform his perceptions and an equally high degree of capability to do so.

Questions on Presencing – transforming self and will

- Presented to Junior iMfolozi Management interviewee

Interviewee A

Q4 - What other views have you heard?

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The interviewee's answer to having heard other views was that he had effectively heard other views through networking with other Field rangers, corporals and even section rangers. Extensive dialog between himself and the anti-poaching unit corporal had ensured that he was exposed to other views. Again there was a noted difference between the interviewee's ability and willingness to letting go and subsequently, to let come. The researcher noted that the interviewee had no willingness to let go but that he had average capability to do so. The deductions made by the researcher were that the interviewee was willing and had the capability to progress down the U curve, suspending, re-directing and letting go with ease. Through discussion and observation, the researcher gauged that the interviewee had the ability to transform his will to effectively engage in thinking in how to counter rhinoceros poaching. He was guarded in expressing his willingness to do so as this had the potential to conflict with his superiors if behavior was not commensurate with standard operating procedures. Willingness to co-sense and co-presence was evident but through observations and recordings of both the verbal interaction from the interviewee as well as from slight nuances noted by the researcher in terms of the interviewees body language the researcher noted that as the upward progression of the U demanded overt actions in the letting come core capacity, the interviewee was less and less willing to do so. .

Q5 - Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High		X	

The interviewee was recorded by the researcher as having a high capability to transform his self and will but a weak willingness to do so through letting come. The interviewee explained the networking process which occurs laterally and informally within all non commissioned ranks in the game reserve. The interviewee is open to new ideas and welcomes them openly. The interviewee also explained his discussing the matter externally with community members and how they have provided insights based on their own interpretation of how internal staff are involved and how difficult it is/will be to solve that. Within the informal structure of the interviewee's peer group, the interviewee explained that he is willing to transform his will but that he and all his peers faced the same system whereby they take orders from their superiors who are accountable for the planning of rhinoceros anti-poaching operations. The researcher noted that the interviewee is able to listen and relinquish his old/personal ideas to accommodate the ideas and responses of others. The interviewee was gauged by the researcher as being able to let new ideas come in and that he was able to transform his self and will. This 'mental shift' engenders a shift in thought process and a deepening of understanding. However – there is a portion of "letting come" as Scharmer terms it in his Theory U that requires a transforming of actions. At this stage the Interviewee displayed a weak willingness to act on his newly gained insights. Through continued dialogue, the researcher gained an insight into how this difference can cause an interviewee to positively reach the bottom of the Theory U curve. Due to the fact that traversing down the U through suspending, re-directing, letting go and letting come are all achievable thorough a transformation of perception and self and will, the interviewee essentially undergoes a 'mental change'. This 'mental change' or deeper understanding is not overtly noticeable by a large institution as it has not yet manifested itself in actions which the institution could scrutinize

- **Presented to Middle iMfolozi Management interviewees**

Interviewee B

Q4 - What other views have you heard?

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The interviewee explained that he interacts with numerous people who have no knowledge of or affinity with the rhinoceros anti-poaching topic. Although many of the views he hears are not grounded on prior contextual knowledge he is able to engage them, explain where relevant, the inappropriateness of their view, according to him, and offer his “*more informed view*” based on his prior experience. He was recorded by the researcher as having no willingness and an average capability to Let Come. This assessment was based on the fact that he does not seek views from individuals from within the same sphere of rhino anti poaching responsibilities. He is content to interact only with individuals who have little or no contextual knowledge on the subject. During the interview the researcher noted that the interviewee was able to traverse through the downward movement of the U and that he had the ability to suspend and re-direct because he was able to engage with many different lay people on the topic of rhinoceros poaching. The interviewee explained that he interacts with his friends and social peers who do not have any knowledge of rhinoceros poaching. His ability to let go was also evident but throughout the interview the researcher continually noted that the interviewee was only willing to engage each of these core capacities of Theory U by filtering these perceptions as well as his self and will through his personal experience of rhinoceros anti-poaching strategizing. The researcher noted that since the interviewee’s experiences with rhinoceros poaching in iMfolozi was minimal, his willingness within the co-sensing and co-presencing phase of Theory U was lessened and that it would probably affect his ability to adequately experience deeper learning through the transformation of his perceptions and will in the future. Particularly as far as traversing up the action oriented right hand side of the U.

Q5 - Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The interviewee was recorded as having no willingness and only average capability to letting go and letting come within the heart of the U movement which is presencing. He explained that all his decisions and responses with regards to the rhinoceros poaching taking place in iMfolozi Game Reserve were based solely on past incidents which he uses as case studies to plan reactions to rhino anti-poaching strategies. Through discussion revolving around the above explanation, the researcher using the lenses of Theory U, could gauge that the interviewee was hamstrung in his willingness to fully engage with each of the core capacities of Theory U leading to deeper understanding through presencing. He was able to transform perceptions and his self and will but he was not entirely willing. The researcher purposefully lengthened the discussion on rhinoceros poaching and the fact that it had changed in its complexity over the years as well as enquiring as to where conservation law enforcement role players were to get new ideas from to curb this phenomenon. The interviewee continued to explain that he felt case study investigation was the best form knowledge. His lack of willingness to let come was also evidently affecting his ability to start transforming his actions through co-creating the future countermeasures to rhinoceros anti-poaching.

Interviewee C

Q4 - What other views have you heard?

Capability	Willingness			
		none	weak	strong
	None			
	Average		X	
	High			

The interviewee was recorded by the researcher as indicating a weak willingness to let come with an average capability to let come. The interviewee explained that he interacts with staff in his unit and with certain staff within the rest of the law enforcement management team of iMfolozi, but does not freely share. The researcher then asked why this is and the interviewee explained that due to a very obvious but subtle division within the law enforcement ranks with regards to information sharing he is afraid of reprisals and of sensitive information “leaking”. The boldness of this statement led the researcher to expand the dialog with the interviewee and through Theory U lenses, the researcher could ascertain that the interviewee was definitely capable of letting go and transforming his will through presencing. His descent through the downward movement of the U was rapid and the researcher noted that suspending, re-directing and letting come were all present in the discussion that followed after the initial question. His willingness to verbalize or ‘make known’ his mental transformation through progressing downward through the U was curtailed through him not feeling secure if others heard his viewpoints on the subject of rhinoceros poaching in iMfolozi. An important note: this is the third interview conducted and it is becoming very evident that organizationally EKZNW management at all its mid to senior tiers is locked into an absencing cycle which is not stopping the roleplayers from deepening their thinking, but it is curtailing the freedom of implementing new ideas emerging from this deeper thinking.

Q5 - Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

In answering this question, the interviewee explained that he felt new ideas come from networking and that it was important to talk to other roleplayers within the rhinoceros security industry. The researcher noted that that the interviewee’s responses indicated a high capability to let go of preconceived ideas on rhinoceros anti-poaching and that he was in fact transforming his perception through migrating through the downward portion of the U. Within the heart of the U where presencing occurs, the researcher noted that the interviewee was both capable and willing to let go and let come to new ideas and the researcher noted that the interviewee had both a strong

willingness and a high degree of capability to transform his perceptions through suspending, re-directing and letting go. The interviewee explained that he found the recent visit to a specialized unit of the South African Police who have assisted in combined rhinoceros anti-poaching operations in iMfolozi, very enlightening. The researcher noted that the interviewee had in fact transformed his perception on law enforcement operations and through progressing even further down into the U, had also displayed a high degree of both capability and willingness to engage in 'mind shifting' through transforming his self and will in terms of how conservation law enforcement operations could be conducted. The 'mental' part of letting come enhanced through the above mentioned exercise indicated to the researcher that it was becoming clear that letting come was in fact a two-fold capacity, one part being a mind shift and the development of a transformed will through that, and the other a transforming of action through acting on the new convictions of a transformed mind and will. Up to this stage in the interview, the researcher noted that all the interviewee's comments and discussion had indicated a strong willingness and capability to progress through the downward "mental" portion of Theory U.

Interviewee D

Q4 - What other views have you heard?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

As has been explained, this particular interviewee has been officially mandated to engage with external conservation and rhinoceros law enforcement role player. He attends various external forum meetings throughout South Africa as well as internationally. In assessing the interviewee's responses to this question through the lenses of Theory U, the researcher gauged that the interviewee was disposed to letting go as well as letting come. It was obvious that the interviewee regularly engaged in deepening his thoughts and learning and naturally migrated downwards through the Theory U movement. Constant stimulus from various other roleplayers external to the EKZNW law enforcement cadre provided for networking possibilities that positioned this interviewee advantageously to where he was challenged and required to constantly transform his perception as well as his will with regards to rhinoceros anti-poaching not only in iMfolozi but also within EKZNW and South Africa as a whole. Suspending, re-directing, letting go and letting come

to new methods to rout rhinoceros poachers was an activity that the interviewee engaged in regularly. The interviewee explained that he continuously hears alternative views on the rhino poaching problem. He listens to them and indeed cascades them down the channels to where implementation takes place. The interviewee did however state that because some rhinoceros security roleplayers in EKZNW are not held accountable for their habitual actions, they act with impunity and that they are not hard pressed to learn anything new and therefore don't.

Q5 - Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

Notes recorded by the researcher during the dialog which ensued from this question, assisted the researcher in gauging the interviewee's willingness and capability to let come and let go as framed by Theory U. In answering this question the interviewee explained that he felt that new ideas on rhinoceros poaching come from looking at case history and interacting with external stakeholders. The interviewee stated that he is aware that there are attempts being made by some iMfolozi law enforcement roleplayers to network with roleplayers external to the protected area as well as EKZNW but that those attempts are being thwarted as they are not officially mandated to do so. The interviewee explained that this 'prohibition' on networking was even formalized through the implementation of an EKZNW policy that clearly regulates the iMfolozi law enforcement roleplayers behavior and prohibits them from doing 'official' networking. The discussion enabled the researcher to clearly see through the lenses of Theory U that this interviewee possessed strong qualities of willingness as well as capability to both let come and let go and thereby transform his will through presencing.

- Presented to Senior iMfolozi Management interviewees

Interviewee F

Q4 - What other views have you heard?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High		X	

The interviewee explained that due to his keenness to find out more about rhinoceros anti-poaching, he hears views from many different roleplayers. He explained to the researcher that he engages well with people that he trusts and that most of his interactions with other conservation rhinoceros security roleplayers are of an informal nature. The researcher noted that during this dialog, the interviewee had made a subtle indication that he eagerly engages with law enforcement roleplayers that he personally knows and trusts. The researcher pointed this out and the interviewee explained that he has been 'targeted' by EKZNW before and would not say anything that would cause a confrontation with senior EKZNW staff that held a viewpoint contrary to his own. The researcher noted that the interviewee as an individual was able to migrate downwards through the U with ease, transforming his perceptions on rhinoceros poaching and transforming his self and will. There was however, an indication that this interviewee felt that there were absencing behavior being metered out by EKZNW in the form of manipulation and abusing. The researcher had taken cognizance of the subtle indications in the dialog recorded in Question 3 as well as this question and recorded the possibility of an established absencing cycle being present in EKZNW as a whole with regards to matters pertaining to rhinoceros anti-poaching. The researcher noted that the interviewee indicated a weak willingness to let go and let come but he had a high capability to do so.

Q5 - Rhino poaching has changed so much in the last four years, where do you think new ideas on rhino anti-poaching come from?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High	X		

As the interviewee was answering this question, the researcher was able to begin to formulate that this particular rhinoceros anti-poaching role player was wary of the absencing behaviors that an institution such as EKZNW could meter out to an employee that was seen to be obstructive or even insubordinate in some way. In noting the particular answer to this question, the researcher recorded that the interviewee was both willing and able to let go of perception and let come to new ideas and views on rhinoceros anti-poaching. The interviewee explained in listening to others views, he relishes talking and getting new ideas and perspectives on rhinoceros anti-poaching - but only with friends and colleagues that he trusts. He is able, but does not trust easily and therefore is not willing. The interviewee stated that in his opinion that new ideas on rhino anti-poaching do not come from within EKZNW but rather from outside the organisation. He was of the opinion that EKZNW is only “treading water” – that they do the same things only in different ways. In gauging the responses from the interviewee, the researcher filtered the verbal dialog as well as the body language observations made, through the lenses of Theory U. The interviewee displayed an obvious capability to progress through the downward movement of the U through engaging in each of the four capacities of suspending, re-directing, letting go and letting come. The interviewee displayed an obvious lack of trust to the authorities of EKZNW and that led, in due course, to his willingness to potentially start transforming his actions in relation to letting come, becoming guarded. The researcher noted that the interviewee had a high degree of capability to transform his perceptions as well as his self and will. However, his willingness was noted as being weak to engage in potential overt transformation of his actions through letting come which could put him in a position to be manipulated by EKZNW authorities.

Questions on Creating – transforming action

- Presented to Junior iMfolozi Management interviewee

Interviewee A

Q6 - How do rhino anti-poaching strategies get transferred into actions currently?

Q7 - How could the process of thoughts to actions be improved?

Capability	Willingness			
		none	weak	strong
	None	X		
	Average			
	High			

For assessing willingness and ability to crystallize and prototype solutions the interviewee noted that the interviewee had no willingness or capability to engage these core capacities of the upward movement of the U. Strict adherence to rank and linear management communication procedure and an unwillingness to deviate from this resulted in the allocation of the 0. The interviewee did however stress the reason for this strict adherence is a two-fold reason being a) that he feared reprisal from subordinate staff whom he stated would accuse him of being dogmatic and discriminatory especially if what was being implemented was not done uniformly across the game reserve and b) he feared reprisal from his superiors because such an intervention would have to be endorsed by them and seen to be originating from them before it could be carried out. The interviewee noted that due to the above, the interviewee's propensity to transform his action would have to be in line with what was the standard operating norm. If he stepped out of that norm, he could become subjected to the manipulation and abusing of absencing behavior from senior ranking staff. His ability to transform his actions would be determined by the rigid standard operating procedures, therefore his willingness to do anything other than what was dictated to him, waned. The researcher again noted the how progressing downward through the U was achievable through an altering of one's mind. Clearly, the interviewee displayed strong characteristics of co-sensing and co-presencing through the transformation of his perception, self and will. Advancing up through the 'doing' part of the U movement, i.e. co-creating through transformed actions would clearly expose the interviewee to the potential absencing behaviors of an institution who could interpret the interviewees 'mind shift' as being obstructive to their established Standard Operating Procedures.

Q8 - How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average	X		
	High			

The interviewee was noted by the researcher as having average capability to transform his actions but no willingness to do so. In the context of the question, the interviewee showed an ability to 'think out the box' by transforming his perception as well as his self and will but through the lenses of Theory U, the researcher gauged that his willingness to do so was restricted. The researcher asked very simply – “You have given some great ideas on curbing rhinoceros anti-poaching, why don't you get on and do them?” The interviewee's simple answer was that he cannot act without the sanction of his superiors and that sanction would not be granted if their ideas were different. Upon reaching the heart of the U which is presencing, as indicated in 2.7.2 of this study, the interviewee displayed some frustration at being able to suspend, re-direct and let go of some of his preconceived ideas on how to conduct rhinoceros anti-poaching but not being able to act on any new ideas. This became evident to the researcher as the interviewee explained that his behavior was regulated by an established system which was focused on a 'top – down' management style. In transforming his action on his own he would be subjected to abusing behavior from an obviously present, absencing cycle.

- **Presented to Middle iMfolozi Management interviewees**

Interviewee B

Q6 - How do rhino anti-poaching strategies get transferred into actions currently?

Q7 - How could the process of thoughts to actions be improved?

Capability	Willingness			
		none	weak	strong
	None		X	
	Average			
	High			

For assessing willingness the interviewee was recorded by the researcher as having a weak sense of willingness with an average capability to crystallize and prototype solutions. The researcher noted that through assessing the answers to these questions, that the interviewee's ability to crystallize and prototype new ideas into transformed action were negatively affected. The lack of willingness to make a 'mind shift' through the downward progression of the U was now affecting his ability to transform his actions on the upward movement of the U. The researcher using the lenses of Theory U realized that crystallizing and prototyping of new ideas and their resultant actions will not be achieved as all the interviewee's thought processes are reactive, waiting for the poachers to make the first move. The only hope on solving the problem would be that the poachers would repeat their behavior exactly.

During the interview, the interviewee described that he does engage in networking type activities but the researcher noted that he would only do this with lower ranks and only within his Section. As a process of fine tuning an approach to dealing with complex rhino anti-poaching this would be disjointed and a holistic approach comprising of transformed actions through realizing or co-creating a solution to the complex problem of rhinoceros anti-poaching, would not be reached effectively.

Q8 - How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None		X	
	Average			
	High			

The researcher recorded the interviewee as having weak willingness to institutionalize but had no capability at all to institutionalize. He described an example where through networking in iMfolozi to solve a certain anti-poaching strategic problem; he would then suggest that the problem and solution be discussed between all other rhino reserves before being taken up through the linear management channels. A "united" voice so to say would have a larger impact in convincing the upper echelons in accepting the new initiative. However, as an individual he does not have the ability to do this or drive this due to him being part of an absencing cycle both locally within the reserve and organizationally within EKZNW.

Through questioning, the Community of practice colleague highlighted that by the researcher not setting a neutral environment it could affect the objectivity of the information. For example, the researcher used the Conservation Manager's office as a venue and sat in the Managers chair while the interviewee sat in a subordinate position opposite the researcher with the desk between them. This comment was noted and mitigating factors will be put in place to prevent this with the other interviewees.

Interviewee C

Q6 - How do rhino anti-poaching strategies get transferred into actions currently?

Q7 - How could the process of thoughts to actions be improved?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High	X		

For assessing willingness to transform his actions based on a newly transformed will from the outcome of the previous question, the interviewee was recorded by the researcher as having no willingness to do so. Through the interviewee's answer to this question, the researcher noted that his capability to transform his actions was high. The disparity between the interviewee's willingness and capability to progress upwards through Theory U became clear to the researcher through expanding the dialog beyond the answering of these two questions. The researcher readdressed the comment made by the interviewee in question 4 regarding the fact that there could be sensitive information relevant to rhinoceros anti-poaching strategizing "leaking" and what this potential "leaking" would result in. The interviewee explained that there are a large number of internal staff deployed within the iMfolozi law enforcement team who are corrupt. The interviewee further explained that if he was to network and discusses rhinoceros security interventions openly then it could potentially make him a target for reprisal from corrupt elements within EKZNW, both within iMfolozi and higher up in the organisation. The researcher filtered these comments through the framework of Theory U and noted that the propensity for transforming action was very much restricted by the belief of this interviewee stating that he feared reprisal from a corrupt element within the law enforcement cadre. Advancing upwards through the U movement would engender overt actions resulting from a transformed perception and will. It is this overt action that could lead

to the absencing behaviors of certain law enforcement staff negatively affecting the interviewee. The result culminates in an individual who is capable of transformed action through crystallizing and prototyping but who is not willing to do so for fear of abuse from individuals and an organisation locked into a self annihilating absencing cycle.

Q8 - How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High	X		

Gauging the responses from the interviewee in relation to this question, the researcher recorded a 0 for the interviewee's willingness to institutionalize a new response to rhinoceros anti-poaching in iMfolozi. Through the position of leadership held by the interviewee and gauging the responses as recorded by the researcher, it was noted that the interviewee had a high capability to transform action through crystallizing what had to be done and then prototyping and institutionalizing that action. The interviewee had progressed well down through the sensing and presencing part of the U indicating both a strong willingness and capability to engage with the core capacities of the downward movement of the U. A clear contrast then developed as noted by the researcher that as the upward movement of the U demanded overt or 'noticeable' action from the interviewee, his willingness to embrace the core capacities of prototyping and institutionalizing became minimal and was recorded by the researcher as being none. . The interviewee was certainly capable of embracing these core capacities but due to the negative effects of what he perceived as a corrupt group of law enforcement roleplayers with connections to high ranking staff in EKZNW, the absencing behaviors that they could direct towards him affected his willingness to advance adequately upwards through the U movement

Interviewee D

Q6 - How do rhino anti-poaching strategies get transferred into actions currently?

Q7 - How could the process of thoughts to actions be improved?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High			X

When the researcher posed these two questions it sparked off a lengthy dialog with the interviewee. Throughout the dialog it became clear to the researcher that the interviewee felt a great frustration in dealing with some of the iMfolozi law enforcement roleplayers. The researcher used the lenses of Theory U to filter the responses given by the interviewee during the discussion. By doing this the researcher was able to discern that this interviewee, given his official mandate by EKZNW to engage and network with external law enforcement roleplayers with regards to rhinoceros anti-poaching, was naturally progressing both downward through the mental transformation aspect of the U as well as upward through the action or 'doing' aspect of the U. His official mandate in terms of his job description absolved him from experiencing the negative effects of an absencing behavior that other iMfolozi roleplayers were prone to. Although the interviewee could not articulate well the source of his frustration, it was clear to the researcher using the lenses of Theory U, that there was a marked difference between the other interviewees and this one. When analyzing the dialogs of both past interviewees and this interviewee, the researcher could ascertain that those roleplayers wanting to transform their actions and advance upwards through the U were subject to absencing behavior from EKZNW in the form of both manipulation as well as abusing. This interviewee on the other hand was officially mandated to transform his actions through crystallizing and prototyping thoughts and ideas on rhinoceros anti-poaching. He was free to do so without fear of retribution from the absencing behaviors of EKZNW and therefore his willingness and his capability to crystallize as well as prototype and in so doing transform his actions continually, was very good.

Q8 - How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			X
	Average			
	High			

An interesting phenomenon was recorded by the researcher during the recording of the response to this question by the interviewee. The interviewee explained that in his mind, new thoughts and responses with regards to law enforcement can only be processed and implemented if the hierarchal leadership element practiced equality in terms of their leadership style. He was of the opinion that this is not happening and therefore rhinoceros anti-poaching is not moving forward adequately. The researcher encouraged further discussion and dialog with regards to this question and filtering the responses through the lenses of Theory U, noted that the interviewee was very willing to institutionalize his new thoughts and ideas as they emerged from networking with other external law enforcement roleplayers. However, as he did not have the capability to institutionalize them, due to his restricted position of influence in EKZNW with regards to implementation of policy etc, he felt frustrated. The researcher noted that with any law enforcement role player who has great willingness to institutionalize his/her actions stemming from a new understanding from sensing and presencing, but who cannot institutionalize due to their capability being blocked by their official position in an organisation, will experience high frustrations. This interviewee was noted as having a strong willingness to transform his actions with regards to institutionalizing but a no capability to do so. It was noted however, that this was as a result that he is only allowed to act in an advisory capacity and not actually implement decision within the organisation of EKZNW.

- **Presented to Senior iMfolozi Management interviewees**

Interviewee F

Q6 - How do rhino anti-poaching strategies get transferred into actions currently?

Q7 - How could the process of thoughts to actions be improved?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High	X		

The interviewee answered these two questions by stating that according to his opinion, rhinoceros anti-poaching strategies are currently transferred into action on an ad hoc basis because of the established reporting procedure within EKZNW. He explained that there is no accountability and that the reporting procedure does not incorporate any of the actions as described in the EKZNW Rhinoceros Security Strategy. Managers are therefore encouraged to report on only those things for which the relevant boxes will be ticked higher up the reporting ladder, leaving the real operational issues unaddressed and unaccounted for. The researcher noted that the interviewee possessed strong qualities of having the capability to crystallize and prototype in the transforming of his actions for the betterment of rhinoceros anti-poaching. The researcher steered the dialog into what actions would the interviewee take to rectify the shortfall identified above and also asked the interviewee why he has not done so. The interviewee explained that although he has the capability to recognize these shortfalls and even to formulate interventions to address them, he was not willing to do so as he felt that it would be interpreted as being insubordinate behavior by EKZNW and that he could be punished for it. The researcher noted that again, this interviewee had the capability to transform his actions through crystallizing and prototyping but that his willingness wavered in the shadow of a present absencing cycle within EKZNW.

Q8 - How can new thoughts and responses be incorporated into rhino anti-poaching in iMfolozi?

Capability	Willingness			
		none	weak	strong
	None			
	Average			
	High	x		

At this stage of the interview, the researcher had noted that due to the effects of an absencing cycle being present in iMfolozi, that institutionalizing transformed actions would not be naturally forthcoming. In answering the question, the interviewee explained that for the process of thoughts to actions to be improved, there would need to be accountability as well as one-on-one supervision from superiors in the form of field visits to anti-poaching roleplayers deployed at ground level of which there are none. He stated that there is no organizational will for this to happen and so it does not. He further explained that for new thoughts and responses to be incorporated into rhino anti-poaching there would be a need for “openness” as well as freedom to make and implement decisions without fear of reprisal from the organisation. The researcher filtered these responses through the lenses of Theory U and recorded that the interviewee had the capability to progress upwards through the ‘doing’ part of the U movement, but that he was not willing to do so due to fear of reprisal from his employer.

Throughout the interview with Interviewee, it has become very apparent that the absencing cycle or rather the presence of an absencing cycle is influential much sooner in the U drive than with other interviewees. Historically there has been a degree of malicious treatment by EKZNW to the interviewee and it seems to surface in his distrust and his willingness to engage with the phases of Theory U that require overt action and would make him ‘noticeable’ within the ranks of the iMfolozi rhinoceros anti-poaching cadre. Core capacities of Theory U where he would as an employee, not need to make himself vulnerable i.e., through the downward movement of the U entailing a transformation of the mind – he scores high with regards to capability and willingness. However, the core capacities of Theory U that requires him to make himself vulnerable and susceptible to ridicule or even retribution from the organisation, i.e. the advancement upwards through the U movement, he scores a low score for willingness due to being noticed by the organisation when taking transformed action with regards to rhinoceros anti-poaching.