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The affordances of an applied arts intervention for sustained environmental good practice in Wakkerstroom-eSizameleni

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The Affordances of an Applied Arts Intervention for Sustained Environmental Good Practice in Wakkerstroom-eSizameleni

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Abstract

The Constitution of South Africa guarantees its citizens the right to a pollution-free environment and this guarantee is supported by legislation. School curricula also include content on the hazards of environmental degradation. However, despite legislation and education, littering and dumping remain major problems in many parts of South Africa. This study investigated the possibility of developing environmental awareness, and of bridging the gap between such awareness and environmental action, on the part of children and adults in the village of Wakkerstroom-eSizameleni, Mpumalanga. In an action research project, framed theoretically by deep ecology and eco-feminism, three cycles of multimodal activities, with applied drama at their centre, were planned, enacted and reflected upon in order to establish what affordances these may have, collectively, for changing poor environmental behaviour.

While acknowledging that changes in participants' littering and dumping behaviours were limited, the study revealed that arts-based activities are an appropriate vehicle for raising awareness, developing knowledge and skills and forming relationships which have potential for impacting on environmental behaviour in the long term, given participants' high level of engagement and sustained interest in these activities.

Other key findings relate to the methodology of the study. In order for it to be replicated in other rural areas of South Africa, a thorough reconnaissance of any action research site would be essential since no one village is the same as another, and local champions of the environment would need to be identified in order to promote long-term sustainability of environmental good practices. In the initial cycle of this action research study, only children were involved but it became evident that adults needed to be included in both the arts-based activities and community outreach endeavours, given that children's socio-cultural behaviours are inculcated primarily in the home, and given the importance of understanding both child and adult perspectives on community needs.

A final finding of a methodological nature is that there is value in re-imagining the role of a critical friend in action research. In this project, for much of the time the central researcher was able to reflect on her actions and their outcomes only through post-activity journaling. This journaling was very important, particularly in relation to identifying the possible development of eco-anxiety

on the part of both participants and the researcher. However, when a friend was able to facilitate activities planned by the researcher, thus freeing the latter to be a reflective observer of participants' responses in more nuanced ways, the quality of the researcher's reflections, as 'an inside I', was enhanced.

Key words: deep ecology, eco-feminism, action research, critical friend, applied drama, affordances, multimodality, littering, environmental behaviour, eco-anxiety

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Chapter One: Introduction



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1.1 Mapping the chapter

The doctoral research that is the focus of this thesis is one of a number of long-term initiatives aimed at improving the natural and lived environment in the eSizameleni and Wakkerstroom areas, in which I play a role. The chapter begins by locating this study in relation to these initiatives. This contextual work is followed by an outline of the aims of the study, the research questions that inform it and the rationale for the research. The chapter ends with an outline of the chapters to follow.

1.2 Situating the study

At a lecture given at the University of the Witwatersrand in 2014, Dr Jane Goodall asked: *what are the consequences of little choices made?* Here she was referring to environmental issues and specifically to the small things that individuals can do that have the potential to make a big impact. Lehtonen et al (2019), quote Margaret Mead who "[o]nce said, "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has" (p.366). With increasing evidence of global warming and destruction of the environment that sustains all life on the planet, changes in actions and attitudes are desperately needed. Conservation of our natural environment has become a social problem as well as an environmental one and, with the explosion of the world's population, comes greater need for wise use of the resources the planet can offer us and infrastructure to support this increased population.

Environmental problems are both global and local. In the Wakkerstroom-eSizameleni area in which this study is situated, protecting natural resources requires attention. As Robert Zipplies has stated: "The destruction of prime tourist destinations as a result of climate-related events and the associated pressures of a growing stressed human population, could well rob Africa of one of the greatest opportunities the continent has…" (2008 p.64). This research project has aimed to respond to Dr Goodall's question by investigating the possibilities of changing attitudes and actions, specifically among children, in eSizameleni the township of Wakkerstroom village in Southern Mpumalanga.

1.3 The physical location

Wakkerstroom and eSizameleni are situated in Mpumalanga on the border of KwaZulu-Natal in the Highveld, twenty-seven kilometres east of Volksrust. Grassland and wetland form the biomes of the area. The wetland, which is fed by the Utakha River, is approximately one kilometre wide, ten kilometres long and four metres deep. This wetland attracts large numbers of water and land birds, as well as mammals such as otters, together with reptiles and amphibians. The wetland, or vlei, is a huge tourist attraction as it is an internationally recognized birding destination and there are six bird species endemic to the area. It is a protected breeding ground for the crowned crane, while migratory birds such as the amur falcon and white stork can be seen in the summer months.

Approximately three hundred people live in the village of Wakkerstroom, and 3000 in eSizameleni. The demographics of the area are diverse, as is the case in most rural parts of South Africa and there is a marked disparity between the incomes of people in the village and the township. The predominant languages spoken in the area are isiZulu followed by Afrikaans and then English. Indian, Pakistani and Bangladeshi shop owners make up a small portion of residents, some having been resident for generations and others transitory.

eSizameleni can be described as a typical township in rural South Africa with houses that are mostly Reconstruction and Development (RDP) homes. Unemployment sits at approximately sixty percent. Although this is the 'official' estimate the true level of unemployment is conceivably higher. The incidence of teenage pregnancy is high as is the level of HIV infection. Statistics on these social issues are difficult to obtain as there remains a level of secrecy around them. However, information has been 'unofficially' obtained through the clinics and the hospitals in Wakkerstroom and Volksrust.

Some families grow vegetables in gardens on their properties and some families plant more extensive gardens on the outskirts of the village. Here the focus is on mealies and pumpkins. Residents keep cattle, goats, sheep, chickens and pigs.

An informal settlement lies adjacent to eSizameleni. Here houses are made of mud bricks, wattle and daub or corrugated iron. There is one tap that services a community of approximately fifty homes. The settlement extends up a mountain where there is no access to water except for a stream that runs between the houses on the mountain. There is thus also no sewerage system in these areas, nor is there waste collection.

Many bed and breakfast and self-catering establishments in Wakkerstroom, together with eateries, shops and bars, provide employment, as does the large local retirement complex. The natural heritage, specifically the wetland, is a huge draw card which provides revenue from tourism and supports most of the people in employment. Festivals and other events throughout the year bring in extra revenue, and this is also why it is vitally important that the wetland and the village are taken care of properly. Without the attraction of the natural heritage of this area the only revenue would be from the local farmers, which is not enough to sustain a rural area with unemployment already too high.

1.4 Projects in which the researcher and the local community are engaged

As background to this study, I outline my involvement in a number of community projects and events before turning to its aims, research questions and rationale. Since many of the residents of Wakkerstroom are retirees, there is much scope for voluntary work that addresses the various interests of the residents and at the same time benefits the village and these have a bearing on the study in the relationship-building they have afforded.

1.4.1 Wakkerstroom Animal Group

My concerns in regard to the littering and informal dumping that occurs in the area began when I started working for a volunteer organization called WAG (Wakkerstroom Animal Group). The purpose of WAG is to take care of the animals, such as dogs, in the township, in the village and in outlying areas. From the outset of my time with WAG I was astonished by the level of litter in the township and the conditions in which people were living, littering in the gardens, on the roads and pavements, and in areas informally earmarked for dumping, that have become a health hazard, especially in the rainy months. This situation existed despite the municipality's provision for household waste to be removed once a week. I began to question why people

drop litter in the first place, why people dump waste when it is efficiently collected and why people appear content to live in an environment where toxic waste is found in yards in which children play and livestock forage for food. These questions were informally put to a number of local people who had been living in the area for some time. Most answers were short and of a racist nature, if asked of a 'white' person, and vague and non-committal if asked of a 'black' person.

My work with WAG enabled me to develop relationships with many residents of eSizameleni and Wakkerstroom, including children. Insight gained into the demographic layout of the township from geographical mapping, of the socio-economic 'levels' of families, and identification of residents who could possibly assist with the research project proved invaluable.

1.4.2 The Wakkerstroom Natural Heritage Association

The Wakkerstroom Natural Heritage Association, or WNHA, is a voluntary organization that aims to take care of the natural environment in and around Wakkerstroom. During the wet season, where flooding is a common occurrence, there is much waste in the form of litter and raw sewage that runs into the wetland from eSizameleni. This chokes waterways and has a negative impact on the fauna and flora in the area, besides being an eyesore. My portfolio on this committee is that of litter monitor, which I volunteered for in early 2016. Activities that I undertake as a member of this committee are designed to reach the various sectors of the society that make up the broader community as a whole. As the litter monitor for the WNHA I felt that different approaches were needed for each specific demographic group since such diversity exists in this area. These were broken down into: adults in eSizameleni, children in eSizameleni and Wakkerstroom, and adults in Wakkerstroom and surrounding farms. For some of the activities the groups overlap and such overlapping serves to reinforce messages that it are hoped will be absorbed in the course of ongoing projects.

While engaged in these I began to plan a project using the arts to raise awareness in young children in the village, with specific focus on littering and informal dumping. I decided to apply for inclusion into the PhD programme offered by Drama for Life at the University of the Witwatersrand. An entry in my research journal on 15th March 2016 indicates an interest in conducting a study involving the raising of environmental awareness:

What about a PhD on litter in the township? What tools do I have? What outcome do I want/expect? How do I go about doing this? Why is there so much dumping and litter in eSizameleni? Why don't people make use of municipal pick up – especially since there is regular pick up? How do we change attitudes without imposing the usual top down 'white' supremist authority as is historical in SA?

On 29th March of the same year, there is an entry referring to a research study I completed as part of the requirements for an honours degree:

I have gone back to my original study when I did my honours degree, which was on environmental awareness in street children in Hillbrow. It was most interesting to me that the children had a surprisingly broad knowledge of environmental issues. Many of them spoke about how they'd helped to build compost heaps or pits at home, and also how they ensured that there was no litter in their areas because livestock would eat it and it could be harmful. However, none of this applies to the people living here, where livestock forages in piles of rotting garbage. How could the street kids have made this up? It was information that was volunteered. So it was even more of a surprise to find exactly the opposite when I arrived in Wakkerstroom.

From interviews with teachers in local schools it has emerged that the children in the area do have a good understanding of the hazards of waste in informal dumps, and have been taught in school that littering is bad environmental practice. This dichotomy between what was apparently taught and observed behaviour was to become the focus of the study.

1.4.3 Festivals

The various festivals held in the village on an annual basis afforded both the development of relationships across socio-cultural divides as well as opportunities to add to the work with the children in this study. My work at each of these festivals is on a voluntary basis.

1.4.3.1 Wakkerstroom Music Festival

This is a classical music festival that has taken place annually for the past eleven years. It sponsors a number of community endeavours as outreach programmes, funded through the WMF Community Upliftment Programme. These include three marimba bands which are run by community members from eSizameleni, Wakkerstroom and Village Primary School in Volksrust. In addition, learners who show enthusiasm for learning musical instruments, such

as the piano, are provided with a teacher, and logistics and payment are facilitated by the festival committee. Young people from the local community are being employed to assist with the technical aspects of the festival and some of these have been sent to the National Arts Festival (NAF) in Makhanda, as part of a collaboration between the WMF and the NAF upliftment programs.

I sit on the planning committee for this festival where I hold the positions of technical coordinator and health and safety officer. These portfolios have afforded many opportunities to develop relationships with a diverse cross-section of the community. As part of my responsibilities for the preparation of the festival, as health and safety officer I work closely with municipal officials in planning the event and meet with the police and service providers on an on-going basis. This meant that relationships with these gate-keepers (municipal officials and police) were made prior to the research project.

1.4.3.2 Art and Craft Ramble

The Art and Craft Ramble falls on the weekend closest to June 16th, the Youth Day public holiday in South Africa. Resident artists open their homes and/or studios for passing trade and viewing. Many other venues are made available for exhibition purposes, and workshops are held over the weekend. There is an art competition based on an annual theme and prizes are awarded on the basis of votes by viewers. The art competition provides a platform for encouraging children from eSizameleni, Wakkerstroom and Volksrust to submit artworks, and provided my research participants with an opportunity to engage with this activity.

1.4.3.3 Fairs and markets

Various other fairs and markets are held during the year, such as the Heritage Day, Easter and Christmas fairs. These run over one day each and dates are set according to school holidays and the days on which these cultural celebrations fall. The Biobash is an environmental event which invites participants to attend frogging evenings, rock flipping events (turning rocks over to find reptiles), setting of camera traps, birding and birding excursions.

The Vlei Fees is a church fundraiser organized by the NG Church on a yearly basis. Individuals and organizations are encouraged to have stalls as part of this event. For this event I assist with the WAG and WNHA stalls together with other members of these organizations. In this way awareness is raised on environmental and social issues in the village.

Although events and festivals occur throughout the year, it would seem that awareness of these events is limited mainly to members of the 'white' community in the area. This may be due to the heritage of apartheid. However, my contribution to these village events has given me the opportunity to develop good relationships with people from all walks of life here, and this has been invaluable in planning and implementing this research project.

1.5 South Africa and the environment

The stance that South Africa has taken on the environment with regards to legislation, implementation and monitoring of legislation, and inclusion of environmental topics in school curricula, is discussed in depth in Chapter Four in relation to the reconnaissance phase of the action research. However, it does merit a brief mention here.

As described in Chapter Four, there is extensive environmental legislation built into South African governance. The South African Constitution states that:

> Section 24 of South Africa's Constitution is dedicated to the environment. ... All persons residing in South Africa have "a right to an environment that isn't harmful to their health or well-being" as well as a right to have the environment protected for current and future generations.

Environmental education is included in South African school curricula so that learners are exposed to issues that include global warming, environmental destruction, and the hazards of poor environmental behaviour from as early as grade four.

However, despite environmental legislation and despite environmental education in schools there appears to be a gap between knowing and doing. According to Day and Monroe:

> Knowledge alone doesn't harm or help the environment. Human attitudes don't harm or help the environment. Human behaviours, on the other hand, have greatly harmed, yet hold a great deal of hope for helping, the environment (2000, p.3)

In *Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour*, Kollmus and Agyman, document extensive research conducted in the field of environmental behaviour, and state that "[r]esearch showed that in most cases, increases in knowledge and awareness did not lead to pro-environmental behaviour" (2002 p.241).

In Wakkerstroom and eSizameleni there is evidence of a gap between what is known and what is legislated by the government on the one hand and the behaviour of residents on the other. It

is an attempt to contribute to bridging this gap in this rural village and township in Mpumalanga that is the focus of this study.

1.6 The aims, research question and rationale for the study

In the first two decades of the twenty-first century environmental destruction has become exponentially worse. In my response to Dr Goodall's question, and understanding that I am unable to make a substantial difference regarding environmental destruction, it is the small difference that I hoped to make that provides the rationale for this study. A South African publication edited by Robert Zipplies, makes the following claim:

> Our planet is on a high-speed track to devastation, fueled by massive over-consumption, unsustainable development, poor governance, and obscene social, environmental and economic inequality. In South Africa, we see a microcosm of this planetary scenario, as the race for personal wealth and materialism by the elite few rapidly grows (2008, p.37).

How then, if the problem is so vast, can this devastation be halted? In its answer, the same publication suggests that "[t]he solution to unsustainable management of the Earth demands a move beyond both "business-as-usual" and "politics-as-usual" (p.38). To this I would add Dr Goodall's recommendation of one person, or one small effort, at a time. As will be explained further in Chapter Two, the study is underpinned by deep ecology theory which recognises the driving forces of environmental destruction as being those mentioned in the quotation above, and by eco-feminist theory which foregrounds the exclusion of women from decision-making and action on environmental issues. I have positioned this study in the micro-environment of Wakkerstroom-eSizameleni. While I am aware that one small intervention is unlikely to make a large difference to environmental behaviour, no action would definitely mean no difference at all.

The intervention that is the heart of the study initially focussed on primary school children because, as stated by Hart (1997): We need children to become highly reflective, even critical, participants in environmental issues in their own communities (p.5). Children need to be shown how environmental destruction has an impact locally, taking information from the pages of text books and bringing it into the reality of daily life. According to Zipplies, Hart and other environmental educators, children need a solid understanding of environmental issues and to

grow to adulthood as sound custodians of the planet, with functioning structures in place to enable them to fulfil this role.

As a visual artist and puppeteer myself, it seemed appropriate to use the arts in an intervention aimed at developing changed environmental attitudes and behaviours on the part of a group of primary school children in Wakkerstroom-eSizameleni. Using the arts in education is not a new approach. For example, in her thesis, Flores (n.d.) states: "There has been a very noticeable increase in the use of arts and culture since the millennium and it has now become a considerable movement in itself" (p.3), and importantly, with regards to sustainability, she notes that "considerable investigations have been carried out on the place of the arts and culture in advancing education and sustainable development" (p.6).

Inspiration for this intervention came from the work of artist Benjamin von Wong, who demonstrates the impact that the arts can have in raising environmental awareness. On his website he refers to himself as "…an artist focused on amplifying positive impact" and his "…mission is to make positive impact unforgettable" (www.vonwong.com, accessed 2nd January 2020).

Von Wong enlists the community's assistance in collecting waste which he uses to construct massive installations. These installations then provide further opportunity in the form of photographic representation which is accessible to a broader viewership. Contributors from the various communities he works with are actively involved in making the work, and the final products open extensive conversations. Furthermore, through social media, images of the work go viral, which means the messages do so as well. In an interview with Jacobsen for *Orion*, entitled *A Wave of Plastic*, Von Wong claims that:

> Despite little change perceived in participants' behaviour, the study revealed that the arts are an appropriate means of raising awareness, developing skills and forming relationships which have potential for long term impact on environmental behaviour. (2020, no p.n).



Figure 1.1 work in progress for *A Wave of Plastic*



Figure 1.2 *A Wave of Plastic*

Figure 1.1 shows how an installation was constructed, using 168 000 straws collected by the Vietnamese public, while Figure 1.2 is a photographic representation of the finished piece, titled *A Wave of Plastic*.

The main questions addressed in the research are as follows:

- What, if any, are the collective affordances of selected multimodal activities for bridging the gap between environmental awareness and environmental good practices of a group of rural, primary school children?

- What contribution could an applied arts intervention make to the development of sustained environmental good practice in relation to the management of litter in a rural village?
- Could the applied arts programme designed for Wakkerstroom-eSizameleni be a model that could be applied in other parts of the country?

Having briefly explained the decision to work with children and to make applied arts central to the intervention, I conclude with the observation that very few 'environmental action' interventions, and to my knowledge none with a research focus, have been undertaken in rural contexts in South Africa. In my view both interventions and research are needed in order to respond to localised circumstances and needs. I argue too that interventions need to be long-term and be led by members of the communities in which they are implemented in order for there to be meaningful and lasting community improvement.

1.7 An outline of the chapters to follow

Chapter Two is a composite review of theory, key concepts and empirical studies which have informed the study from its conceptualization to its completion.

Chapter Three focuses on the overall design of an action research study, the research site(s), the research participants, the data collection process, the instruments used and the approach taken to data analysis.

Chapter Four provides background information collected during the reconnaissance phase of this study as the precursor to the action research intervention.

Chapters Five, Six and Seven present an overview of interventions conducted during the course of the study, which comprise cycles One, Two and Three. These chapters indicate the learning gained from the respective cycles, which then informs the planning for the subsequent cycle.

Chapter Seven includes a critical analysis of all findings.

Chapter Eight concludes the study, with reflections on what has been learned and recommendations arising from it.

1.8 Conclusion

This chapter has provided contextual background about the research site and a rationale for the applied arts-based intervention which is the focus of the chapters which follow. I conclude with an observation from Garrard (2014): “getting people to care and make the environment a real, practical priority – that is a cultural matter, and a desperately urgent one if we take these warnings seriously” (p.366).

Chapter Two: Theoretical Framework and Literature Review



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2.1 Mapping the chapter

The design and implementation of the action research project introduced in Chapter One were informed by theory in four different, but inter-connected, domains: (i) environmental theory; (ii) community development and social change theory, including gender development theory; (iii) environmental behavioural theory; and (iv) applied arts, within social change theory.

Theories that inform environmental conservation and the reasons for their inclusion in this study are the starting point of this chapter. Since action research is concerned with 'improvement and involvement' (Kemmis & McTaggart, 1986), discussion of some community development and social change theories follows, specifically in relation to eco-feminism. Environmental behaviour theory is considered for insight into underlying reasons for poor environmental behaviour. As the arts have been chosen as a vehicle for introducing behavioural changes, applied arts and social change theory is discussed in the final part of the chapter.

2.2 Environmental theory

As early as 1997, Heron and Reason stated that:

> There is an urgent need to revision our view of ourselves as cohabitants of the planet. As many of us have asserted, with greater or lesser degrees of concern, the current Western worldview has come to the end of its useful life, and, as well as some remarkable achievements in material well-being and human possibility, has left us with a legacy of human alienation and ecological devastation (p.291).

It is the view of many environmentalists, including myself, that loss of connectivity between the natural and human worlds is a major factor in driving the planet towards possible permanent destruction. This loss of connectivity is what underpins the environmental theory that has come to be termed deep ecology. If humanity were to re-establish this connection between the natural and human worlds it is possible that environmental degradation could be limited. However, deep ecologists have been criticized for failing to pay attention to some of the key factors responsible for environmental degradation, some of which are addressed by eco-feminist theory. Eco-feminism is important for this study because of its concern with protection and enhancement of the environment in both urban and rural contexts. Before examining the tenets of eco-feminism, the basic principles of deep ecology, and the limitation in this theory of which eco-feminists are critical, are described and discussed.

2.3 Deep ecology

Critique of monotheistic doctrine is central to the theorising of deep ecologists who argue that the colonial powers used the biblical statement in Genesis, where God instructs Adam and Eve, thus: "be fruitful and increase in number; fill the earth and subdue it: rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground" (Genesis, chapter 1, vs 28), as a mandate for taking from the planet whatever they wanted. Deep ecologists claim that such exploitation has been the driving force behind environmental degradation ever since. Concern for the lack of acknowledgement of the value of indigenous knowledge systems is also central to deep ecologists' critique of the behaviours of those who exploit the natural environment for profit. Throughout the world, such exploitation and environmental degradation has contributed to the disparity between rich and poor, with the poor bearing the brunt of this degradation but also aspiring to what the rich have, no matter the cost to the natural environment. Such economic disparities are apparent in the research site chosen for this study, in that the residents of eSizameleni, who live marginalized existences, also live close to the more affluent residents of Wakkerstroom.

Many consider that Rachel Carson's *Silent Spring* (1962) was the precursor to the deep ecology movement (Drengson, Devall and Schroll, 2011 p.102), but it was the Norwegian philosopher,

Arne Naes, who first coined the phrase ‘deep ecology’, in reaction to what he termed ‘shallow ecology’. Shallow ecology, while concerned with pollution and the depletion of natural resources, ignored the fractured values of humanity that are causes of this. The deep ecology of Naes then took into consideration these values and questioned the driving forces behind mainstream practices (Drengson et al, p.103).

Deep ecologists are critical of the human/nature dualism and endeavour to reunite the two in order to create a balance, seeing the natural world as not apart from, but rather as a part of, human existence. According to deep ecologists, it is Judeo-Christian anthropocentric world-views that have justified human dominance over nature (Braidotti at al, 1995 p.50). Within such world views, “Humans are correspondingly ranked on a scale from primitive to modern, based on their apparent ‘distance’ from nature” (Trexler, 2014 p.213, italics in original). In their critique of dualist world views, Lehtonen et al are of the opinion that this dualism is no longer acceptable, and that overconsumption is the result of this, and that the superiority complex within humanity is illusionary (2019 p.373). They claim that such overconsumption is compounded by “[a]dvertising, globalisation and digitalisation”, which extends the human/nature dualism (p.345). Deep ecologists reject the ‘reductionism’ and ‘dualism’ that drove the scientific and industrial revolutions of the seventeenth, eighteenth and nineteenth centuries and that provided scientists with a paradigm that continued to frame the work of some of them into the twentieth century. Randle argues that reductionism and dualism “were so strong that holism – the assumption that we must treat people and our physical world, as organic wholes, with non-physical matters being important – has had to struggle ever since” (1999 p.20).

It is humanity’s lack of awareness of the richness in the diversity of all planetary life that deep ecologists are critical of, stressing that only basic needs need be satisfied in the use of natural resources. This, rather than the wanton taking of resources beyond what is absolutely necessary. Deep ecologists call for an adjustment of attitude to consider the difference between use and dominance of nature. Included in this is a shift away from the dominance of some sectors of humanity by others (Braidotti et al, 1995 p.159).

Putting it in other words, the artist and teacher van Boeckel has observed that:

> [t]he use of the word nature somehow suggests that we can step out of it and look at it from a distance. In that respect it is remarkable that in many indigenous cultures there is no rigid

> separation between the world of human persons and that of non-human agencies and entities (2013, p.63).

This statement refers to another of the tenets of deep ecology, in that while deep ecologists call for the reuniting of the human and natural worlds, they also call for a return to indigenous knowledge systems. However, their critics claim that they have failed to fully consider divisions *within* the human world that have a fundamental impact on the natural environment. For example, deep ecologists have been criticized for ignoring the patriarchal systems that continue to drive the fractured relationship between humans and nature, and specifically the position and interests of women in environmental reforms (Braidotti et al, 1995 p.171). This is poignantly visible in the research site chosen for my study, in that for the most part, women bear the load of generating income, sourcing fuel for cooking and raising children, while men are still the decision makers.

According to their critics, such as Stevens, Tait and Varney (2018), who refer to the struggle that the United Nations has in trying to deal with carbon reduction within differing member states, the power imbalance that still exists between developing and industrialised cultures is also ignored by some deep ecologists. For example, many development projects are instituted by wealthier, and presumably philanthropic, agencies who fail to acknowledge or draw on indigenous knowledge, or even to consider the actual (as opposed to perceived) needs of those they propose to assist. Meade, Shaw and Banks (eds.) claim that despite the philanthropic nature of these programmes, many people are coerced into adhering to them, where their positions within society are not considered (2016, p.11). This limitation of some well-intentioned development projects is discussed in more depth in Chapter Four, the reconnaissance phase of the study, since a number of projects implemented by various organizations and individuals at the research site had few, if any, positive outcomes.

While the value of the contribution of deep ecology theory for understanding the interdependence of the human and natural worlds is acknowledged, it is the extensions to this theory proposed by eco-feminists that are of central importance for this study and that are reviewed in the next section.

2.4 Eco-feminism

Some years ago, in a conversation with an environmentalist who travels a great deal, I was told that “The moment I get off a plane and I see huge piles of litter everywhere when visiting a new country, I already know that the women, children and animals suffer abuse” (personal

communication, February 2016). Given the centrality to this study of children and women, this observation is deeply troubling. In an article for *National Geographic*, Paul Salopek, currently in his seventh year of a walk retracing the steps of humans as they moved out of Africa and crossed into the rest of the world, raises a question about the most common injustice encountered during his travels and then answers it as follows:

> What is the most common injustice seen on a walk around the world? Not the suppression of ethnic minorities. Not intolerance rooted in religion. No: It is the exclusion of women from humanity's ledger of rewards and opportunities. No society is completely immune. Half of the well over seven billion *Homo sapiens* alive today are denied equal access to political power, made to work harder, and compensated less – because they have two X chromosomes (2020, p.89).

Salopek, who has intimate and personal experience of the many cultures encountered during his travels, claims that the marginalisation of women is evident in all societies, to a greater or lesser extent. As will be described later in the study, the unequal status of women and men is evident in eSizameleni-Wakkerstroom.

Abouzeid (2020) claims that even in 'gender-neutral, merit-based political systems' equal entry does not guarantee equality of influence and decision-making: "Overcoming barriers to political entry is one challenge. What women can – and can't – do once in power is another" (p.121). At various times during the cycles of research undertaken for this study my interactions with local council employees led to the observation that while many women were employed in council positions, they were largely hindered in their work by their male counterparts and supervisors.

For eco-feminists the failure of some deep ecologists to focus on the role of patriarchy in many traditional cultures, tribal societies and non-Western religions is problematic (Braidotti et al, 1995 p.155). As Capra explains,

> [e]co-feminists see the patriarchal domination of women by men as the prototype of all domination and exploitation in the various hierarchical, militaristic, capitalistic, and industrial forms. They point out that the exploitation of nature, in particular, has gone hand in hand with that of women, who have been identified with nature throughout the ages (1997, p.8).

Capra argues that patriarchal values, such as "competition, expansion, domination" (1997 p.10), result in rewards and access to power. Block takes a similar position, claiming that entitlement (What's in it for me?) is the outcome of a patriarchal culture and that the costs of such entitlement include 'an escape from accountability', softness on commitments and lack of authentic citizenship (2009, p70). With reference to the observation above regarding women

in local council positions, it is conceivably this escape from accountability on the part of male workers that prevented these women from working efficiently, with negative consequences for both the eSizameleni- Wakkerstroom community and for the research project.

In *Ecofeminist Pedagogy: Framework for Ecosocial Justice in Education,* Harvester (2009), places eco-feminist theory in a pedagogical context, which is relevant to this study. Warren (2000), quoted in Harvester, states "that the domination of women, human Others, and nonhuman nature are interconnected, are wrong, and ought to be eliminated" (2009, p.2, upper case O in the original). Central to such 'elimination' would be a change from the dominant model of education *about* the environment to a model of education *in, through* and *for* the environment (Harvester p.8, italics in the original), a model that the action research project at the heart of this study has attempted to use. In Austin's words, eco-feminists should take nothing for granted because "the things we take for granted are usually those that were constructed from the most powerful view in the culture and that is not the point of view of women" (Austin, 1990 no p.n).

The quotation from Austin suggests that 'women' have a single point of view. Many feminists are critical of any eco-feminist writing that ignores race and class differences and that presents a 'white', Christian, wealthy, albeit a woman's, world view. These critics ask where the voices of women of colour are to be found, or of those who live in poverty, stating that it is the mainstream voice that is heard. As Abouzeid notes "there are questions of which women gain access to the halls of power and how representative they are of others - questions that several countries, such as New Zealand and Afghanistan, are grappling with" (p.121). It is thus important for ecofeminists to take into account issues of 'race' and class (Braidotti et al, 1995, p.162, quotation marks in the original), particularly in countries in which there is a high degree of inequality, as is the case in South Africa, and most of all in rural communities. Since I am a 'white', advantaged woman, working with marginalized people in post-apartheid South Africa, I needed to take this criticism of eco-feminist positions very seriously and throughout the research project asked questions such as who was I representing, and how. Was my voice dominant, or was I enabling all voices to be heard as equally as possible?

Eco-feminism sits at the heart of this study, specifically since the research aimed to bring about the social change that Harvester (2009), refers to. Often social change endeavours face issues of suffering within the marginalised sectors of society, specifically women and children,

linking too to the suffering of the environment (p.24). The inter-related theories of deep ecology and eco-feminism have each informed both the design of this study and the analysis of data collected during the reconnaissance phase and in each of the action research cycles. In the words of Braidotti et al "[t]o realise the transformative potential of both ecofeminism and deep ecology their mutual links should be stressed" (1997, pg.167).

Deep ecologists call for equality between power-based and marginalized and indigenous knowledges. Eco-feminists though, criticize this call, claiming that the subjugation of women has been ignored, and that this is dire, since women live closest to the natural environment. Theory such as this, along with individual voices such as Greta Thurnburg's and those of entities such as Green Peace, are still lost in the perpetuated greed of those who have, and those who have not, in order to have as much as possible. And where are voices of marginalised women in eco-feminist theory? Hopefully I can make a small dent in all of this, through my small study. (journal, 19th July 2019)

Eco-feminism is important to my study in that it follows the basic principles of deep ecology theory that seek to alter environmental perceptions, but also takes into consideration the marginalised voices that deep ecologists fail to recognise. Further to this, eco-feminism has an element of social change in its theorising.

Given that social change and community development achieved through environmental behavioural changes, is a central aim of the research social change and community development theory also needed to be taken into account.

2.5 Social change and community development theory

Theories and practices in the field of community development (and by extension social change), have been framed by a vision of a just and sustainable world, a commitment to social and environmental justice and an ideology of equality. The critical consciousness of social change practitioners engaged in practical projects and collective action in local contexts, is informed by theories of power (empowerment and disempowerment) (Ledwith, 2016). In addition to Ledwith three other important theorists of social change and community development are Hart (1999), Roseland (2000) and Sen (2000). Hart and Roseland both focus on development and the environment, with Hart particularly interested in children and the environment. Hart's theory has been relevant for this study despite having been developed in contexts different from those pertaining to rural communities in South Africa.

For each of these theorists, sustainability is a central concept. Ndombi, Ndunge and Mulwa's (2020), review of literature on this includes the following:

> Chofreh, Goni, Shaharoun and Ismail (2015) define sustainability as endurance of process and system, Bond et al (2014) simply referred to sustainability as long term programme continuation following implementation or simply the maintained practice past the implementation phase. From Oina et al (2015) it can be deduced that sustainability refers to the degree of project persistence despite the withdrawal of donors (p.404).

Although these authors conclude that there is no "universal definition of [the] term sustainability" (p.406), they refer to Perini and Tencati (2006) as having combined an extensive list of authors to come up with one suggestion, namely that for sustainability, any community-based project needs to be able to continue indefinitely, "taking into consideration the economic, social, and environmental dimensions of a project" (p.406). For Roseland (2000, p.74), sustainable community development should integrate environmental, economic and social objectives. He writes extensively on the concepts of natural capital and social capital, which refer respectively to resources that include the natural environment and to the knowledge and connections that communities 'own'. These are important concepts to consider when engaging in development work.

I agree with Miruri (2015), who argues that sustainable community projects should have at their core, approaches that are conventional, (such as those that have been implemented in the past) but should include a view of the long-term. He also concurs with Webster (2010), who states that resource use over time should do no damage.

Sen writes in the introduction to *Development as Freedom* that:

> [f]ocusing on human freedoms contrasts with narrower views of development, such as identifying development with the growth of gross national product, or with the rise in personal incomes, or with industrialization, or with technological advance, or with social modernization" (2000, p.2).

These recommendations point to the need for community development programmes and projects to start small with 'buy-in' from local stakeholders, and this encourages me in that this aligns with the call for local inclusion by environmental theorists. Block makes a case for "asset-based community development" claiming that "if we want to make communities stronger we should study their assets, resources and talents" (2009, p.13). Block's ideas informed the design and implementation of this research project which has attempted to take into account the needs, skills and knowledge of the local community, of all demographic

backgrounds. Not only this, but the importance of continued work in this field after the completion of the doctoral study cannot be overemphasized. This is why I have attempted to follow Block's advice, where a difference can be made by viewing theory that is broad, but at the same time basic enough to be accessible to all who strive to make a difference, and that is able to include all sections of the community in concretising ideas into simple acts (p.4). Again, inclusivity is an important aspect of the planning and implementation of this research study. Further to this, the ways in which children have potential to contribute to any project cannot be ignored. Children have been involved in environmental work for thousands of years, by virtue of their contributions to family support, especially in rural areas (Hart, p.56). The research site is no exception, as some children herd animals and collect wood, for example. In an area of high unemployment, many rely heavily on the natural environment for fuel, grazing and crops, and I have often come across little boys as young as five, herding cows substantially bigger than themselves, and little girls carrying large bundles of wood on their heads. Hart calls for community-based sustainable development that includes the involvement of children, arguing that "[w]e need children to become highly reflective, even critical, participants in environmental issues in their own communities. We need them to think as well as act locally while also being aware of global issues" (1999, p.3). While limited in scope and duration, the study reported and discussed in this thesis has attempted to respond to Hart's call.

The lack of voice for the marginalised, including women and children, in some environmental discourses and theories of community development is a concern for a number of theorists (e.g. Braidotti et al, 1995) and thus it is important to consider the role of women in community development in general and in community development with an environmental focus in particular.

2.6 Gender and development theory

Day and Monroe state that "[p]olicymakers have long recognized that gender and environment are inextricably linked and that programmes and projects should formalise these connections" (2000 p.30). And Kollmus and Agyeman report that "demographic factors that have been found to influence environmental attitude and pro-environmental behaviour are gender and years of education" (2002, p.248). Gender and education are fundamental to eco-feminist theory, and certainly pertinent to this study, in that the role of these factors had conceivably not been considered in the implementation of previous projects, implemented by various NGOs and concerned individuals, in the eSizameleni-Wakkerstroom area.

From studies undertaken in Nepal, Ethiopia and Cambodia, Robinson-Pant (2016) found that primary learning occurred in the home, in the form of informal learning, and that this mostly came from mothers. She states that "[i]nformal learning [differing from formal, or institutional learning and non-formal learning where the learner actively seeks to learn], results from daily life activities related to work, family or leisure" (p.13). Particularly with regards to this study, since it involves waste, Rodda's (1991) observations are important. She notes that "[w]omen influence the entire family circle, and especially children, in their environmental perceptions, values and attitudes and in ethical considerations, as well as the use of natural resources, energy consumption, and in waste and recycling" (p.104). They are "the invisible managers and practitioners of the environment" (p.211) because they are the ones "who know the best trees for firewood, which plants have medicinal uses, where to find water in the dry season, and the best conditions for growing local crops" (ibid). Since many of the homes in eSizameleni are women-headed households or homes where women are the primary bread-winners, and since much of the time, despite this, male dominance remains in decision-making, the notion of 'invisibility' mentioned above, is pertinent. Importantly too, Rodda notes that "[t]he source of most of the domestic energy used in developing countries is provided by the burning of biomass and it is the women who are mainly responsible for its collection" (p.47). This is certainly the case in Wakkerstroom, where women and children have the burden of collecting fire wood or dung placed squarely on their shoulders.

Given the role that women play in their families and communities, the large claims made by the Kenya Water for Health Organization are understandable, if unlikely to be realised in practice:

> It is common knowledge that as far as the environment is concerned, there is no better person to be informed or used than the woman. As in Education, if the woman is enlightened on the environmental issues, as goes with Health and Nutrition, then the whole Nation will be enlightened and consequently the whole world (no p.n, upper case letters in the original).

However, it would be of great benefit to our world if this claim could become a reality.

Finally, and with reference to community-based sustainable development, Rodda asks:

> What, in any given situation, are the crucial factors which determine the possibilities for women to participate in the struggle in a meaningful way? What are their needs, motivations and constraints? How can their knowledge and experience be taken into account, and how can they be involved in planning and decision-making? (1991, p.150).

I believe that if environmental good practice were to be the overarching consideration when posing these questions, the concerns of both deep ecologists and eco-feminists would be addressed. Therefore, this study has attempted to keep these questions in the foreground, particularly with reference to good environmental practices.

2.7 Environmental behaviour theory

Because of questions about why people behave in various ways with regard to the environment, and specifically because I had noted the gap between knowledge and behaviour, I turned to environmental behaviour theory. Theories of environmental behaviour are not new, but much of the earlier theory has been discarded, attested to by the following statement: "The oldest and simplest models of pro-environmental behaviour were based in a linear progression of environmental knowledge leading to environmental awareness and concerns (environmental attitudes), which in turn was thought to lead to pro-environmental behaviour. These models from the early 1970s were soon proven to be wrong" (Kollmus and Agyeman, 2002, p.241).

Kollmus and Agyeman review the work of various theorists who have tried to explain the gap between environmental awareness and environmentally appropriate behaviour. They present possibilities offered by Rajecki (1982): formal learning as opposed to direct experience, enculturation in the home, and attitudinal change over time (p.242). Day and Monroe pose a number of interesting and useful questions:

> One woman sorts household waste for recycling, the other throws it into a garbage container bound for a landfill. Why? Do non-recyclers need more information in order to recycle? Do they need a monetary incentive? Or do they simply not understand the link between trash and groundwater quality? Are recyclers motivated by the wisdom from feudal grandparents, or peer pressure from their neighbours? … What real barriers stand in the way of people adopting this new [sound] behaviour? (2000, pp.7 & 13).

While inappropriate behaviour with regard to the environment is a widespread concern and there is extensive literature on this subject, there seems to be no definitive answer to the question of why people behave 'well' or 'badly', although there are many theories (Kollmus & Agyeman, 2002). It does seem, however, that many of the reasons put forward are as universal as the concerns that are raised, and many of them apply to South Africa.

Kollmus and Agyeman did a meta-analysis of 128 pro-environmental studies (2002, p.243), which showed that what I had been considering to be the problem all along is correct, in that relevant knowledge about and appropriate attitudes towards the natural environment do not automatically lead to environmentally responsible behaviour.

With reference to this study, a question to be asked is: What direct benefit would halting informal dumping have for residents of Wakkerstroom and eSizameleni? Day and Monroe (2000), suggest that one should "[a]void behaviours that are costly for target audiences. Cost may be measured in terms of time, money, and effort" (p.11). If this is considered at the research site, what time and effort may one expect a marginalized person to invest in the environment when basic needs are not being met? Clearly the reasons for 'good' or 'bad' environmental behaviour are complex, with many factors at play.

Since this study involves children, it is important to consider environmental behaviour in relation to youth. Hart suggests that "[w]e should feed children's natural desire to have contact with nature's diversity with free access to an area of limited size over an extended period of time, for it is only by knowing the intimate wonder of nature's complexity in a particular place that one can fully appreciate the immense beauty of the planet as a whole" (p.18). In similar vein, Chawla (1998) argues that having an emotional connection to a natural environment is important for fostering children's environmental awareness and concern. The ideas of Hart and Chawla present a considerable challenge to those seeking to encourage 'good' environmental practices when the site in which they are working with children and/or adults is already environmentally degraded, with the degradation conceivably caused by those children and adults themselves. Indeed, I noticed that when I took the children into nature, their eyes were opened, but this was too late into the fieldwork to have had any major impact, a limitation of the study that is discussed in Chapter Eight.

Environmental behaviour is clearly difficult to define. Timothy Morton, in a description of global warming as a 'hyperobject', in his 2013 publication *Hyperobjects; Philosophy and Ecology after the end of the world*, claims that global warming is so vast that it is almost impossible to experience and thus can best be described as a hyperobject. An example he provides is that if one is standing in a rain shower, one might wonder why it is raining in winter when one lives in a summer rainfall area, and that even though this rainfall is caused by global warming, one does not feel global warming on one's face as one feels rain on one's face. Therefore, unless one is specifically and directly affected by global warming, as many living in the high mountainous regions of Nepal and Pakistan are being affected by glacial shrinking, one cannot really feel compelled to make an effort to change individual, local or global behaviour. We can equate this with the woman mentioned in Chapter One who dumps diapers in waterways – the bigger picture, or hyperobject, cannot be seen.

In summation, this study has as a key objective, the changing of poor environmental behaviour specifically within a group of marginalised people. Social change theory is useful for this study since it theorises changing behaviour, with such changes more often than not involving the marginalised in society. Those at the margins are conceivably the most in need of opportunities for improved lives. Important to note is that eco-feminist theory also focuses on social change.

Within the context of environmental degradation and poor environmental habits, social change theory combines well with environmental behaviour theory, for understanding the kinds of actions that may result in changed behaviours. The mind map presented in Figure 2.1 provides a visual representation of the theories discussed, and shows how the study sits in the area where theories overlap. It also shows that the chosen approach to the research, which is action research, is aligned with these theories.



Figure 2.1 Theoretical framework mind map

2.8 The arts and social change

For Block, "[t]heater, movies, song, literature and art are storytelling of the highest order. These are the mediums for building an individual sense of what it means to be a human. The arts are an essential part of the story of what it means to be a human being and a community" (2009, p.35). Using the arts to promote social change is not a new idea. As early as the mid-nineteenth century the arts, and specifically plays, poetry and prose were used to comment on the social ills of the time in Britain and some of its colonies. One prominent example is *The Band of Hope*, an arts-based programme that began in Leeds in 1847, where children learned about social issues through participation in performance and then as performers became a moral mirror within their communities. Using contemporary terminology, one could say that the movement went viral at the time, and it is a powerful example of how the arts can be used to promote social awareness and social change. Hughes and Nicholson (2016) sum up some of the key achievements of *The Band of Hope* as "developing young people as critical agents, engaged in making tolerable worlds, characterized by self-respect and compassion for others" (p.52), which accords with what Hart states regarding the need to guide young people in developing critical environmental awareness. In the action research project undertaken for this study, one of the hoped-for outcomes of raising awareness of environmental issues and of action for environmental improvement, is that the children involved would emerge as reflective and compassionate adults.

According to Taylor (2003) the arts can be used to raise awareness of social issues, to bring home a message, to create a space for the message to reside, and to nurture growth on an ongoing basis. The arts are a familiar means of communication throughout the world and have been so for thousands of years. An example originating in Europe is the puppet show Punch and Judy with characters that provide social commentary that is still relevant today. (https://wepa.unima.org/en/punch-and-judy/ accessed 08/11/2020). Jurkowski observes that "[s]ince the most ancient times, puppet theatre has been an illuminating source of metaphor, some of which illustrates the relationship between the Creator and His creation" (1988, p.2, capitals original).

Ancient rock art the world over attests to a connection between indigenous cultures and the spiritual world. The Trust for African Rock Art's website states that "[s]hamans in hunter-gatherer societies created many, or even most, rock art images. Shamans acted, and some still act, as connective channels and mediums between the human and spirit worlds" (Trust for

African Rock Art; (https://africanrockart.org/rock-art-in-africa/significance/ accessed 09/11/2020). The visual arts have also been used for social commentary, and to teach through images. In the past the focus was often on religion, but contemporary work deals with many other issues. Figure 2.1 illustrates an early Renaissance religious work and Figure 2.2 shows a famous twentieth century anti-war painting.



Figure 2.2 *The Crucifixion* by Giotto



Figure 2.3 *Guernica* by Picasso; 1937

Applied drama methodology exists in various forms the world over, for example the use of drama interventions in a study conducted in Finland (Joronen, Konu, Rankin and Astedt-Kurki; 2011) where the aim was to "…evaluate the effects of a school based drama program on social relationships in the classroom and bullying and victimization of school-age children" (no p. num.). This study employed a variety of modes in their interventions, including pre- and post-interviewing, role-playing and improvisation. Interestingly, the study included interventions with the parents of the children as well, and this is relevant to my study which also moved from involving only children as participants to include adults. Another example can be found in the

work of drama therapists in the United Kingdom (Gaines, Butler and Holmwood; 2015) who used a combination of forum theatre and process drama to establish whether a group of drama teachers were able to discern the difference between what is therapeutic and what is therapy in drama therapy practice. Although drama therapy is a discipline separate from applied drama, both employ similar methods. The definition of drama therapy practice as presented by the British Association of Dramatherapists (2015) is an indication of this: … "The therapy gives equal validity to body and mind within the dramatic context; stories, myths, playtexts, puppetry, masks and improvisation are examples of the range of interventions a Dramatherapists may employ" (date, no p. num. capital in the original).

Besides the applied drama companies in South Africa whose work is outlined in Chapter Three, a number of similar companies employ these methodologies in other parts of the continent. An example is the Kenya Institute of Puppet Theatre. The institute states in their mission statement that the "KIPT mission is to promote Puppet Theatre as a means of community education, communication and social change", with "an on-going programme that targets individuals, CBOs, NGOs, private sector, schools, institutions of higher learning, children (sic.) homes and hospitals among others" (www.kiptkenya.org; accessed 14/09/2021). This statement is important in its foregrounding of the need for a programme of activities to be on-going.

In my study, several art forms were used, within a multimodal approach, under the umbrella of applied drama. These included puppetry, visual arts, process drama, dance, music-making and drawing. With regard to drama and with reference to what she terms 'applied performance' Shaughnessy argues that it is not only the fact that performance is produced in educational and community contexts, but the fact that it has a social purpose (pedagogical/political/facilitatory) that distinguishes it from other types of performance (2015, p.32). According to Taylor, applied theatre performance is a 'collaborative group art form' (2003, p.30) which enables spectators to become spect-actors who 'consciously and deliberately reflect and act on the implications of their own and others' actions' (p.6). More recently Preston (2016) has suggested that active participation and ownership of cultural production are intrinsic to applied theatre – a form of theatre which can incorporate the full scope of drama practices and ideas, adapting them to suit the needs and interests of a particular group. Since the needs and interests of the group, as opposed to those of a facilitator or project implementer, for example, place the work on an equal footing for all those involved, applied theatre is aligned with the theoretical position of environmental and social change theorists.

Etherton and Prentki (2006) argue that the arts have the ability to effect change, and more importantly, to effect change through a bottom-up approach, that is inclusive of all participants. They state that "[t]hrough imagination and creativity, thoroughness of analysis, and participatory methodologies, applied theatre practitioners can contribute significantly to making lasting social change" (p.154).

Applied theatre practice focussing on environmental issues exists in a number of forms throughout the world with one example being eco-theatre in Greece as described by Andrikopoulou and Koutrouba (2017). Curtis, Reid and Reeve (2014), working in Australia, have also suggested that the arts provide a solid platform for education in this sector, stating that the arts are useful in …"(1) aiding communication and knowledge building, (2) creating empathy for the natural environment, and (3) by being integrated with ecologically sustainable development" (p.11).

This short section concludes with a further quotation from van Boeckel:

> Art activities offer a person unique, often non-cognitive ways of interpreting and signifying experiences in the world. They have a tendency to reach the sensory, perceptual, emotional, cognitive, symbolic and creative levels of human beings" (2013, p.67).

In my view these are feminine aspects of humanity which have the potential to introduce and support the changes that this study had as its goal. For all the reasons outlined in this section I argue that applied arts and a range of activities associated with introducing these art forms to children and adults could be a means for effecting social change and are thus appropriate for this study.

2.9 Multimodality

My theoretical stance incorporates deep ecology, eco-feminism and social change theory which is enacted, methodologically, through cycles of action research, in which a multimodal approach is taken to a range of arts activities. In order to take a multimodal approach to the arts activities designed for each action research cycle, conceptualisations of multimodality have been drawn on. In *Multimodal Approaches to Research and Pedagogy. Recognition, Resources and Access*, Archer and Newfield state that "[m]ultimodal approaches have the potential to transcend, and embrace, multi-linguistic societies" (2014, p.4), and South African society is certainly multilinguistic. The authors also explain that "[a] multimodal approach to pedagogy recognizes that teaching and learning happen through a range of modes – image, writing,

speech, gesture – and encourages pedagogic tasks that require multiple forms of representation" (p.1). This was the approach adopted for this study, in that it used drawing, puppetry, dance, play-making, poetry, music, performance and self-reflection. Jewitt, Bezemer and O'Halloran (2016) suggest that multimodality can be conceptualised and enacted in a range of ways:

> Exactly how the concept is articulated and 'operationalized' varies widely, both across and within the different disciplines and research traditions in which the term is now commonly used. Therefore, it is very difficult and potentially problematic to talk about multimodality without making explicit one's theoretical and methodological stance (2016, p.1, quotation marks original).

The term 'affordances' is commonly used in conjunction with multimodality, particularly when the focus is on semiotic approaches to analysis (Jewitt, 2009, p.24). Following Gibson, who first coined the term in 1977, Van Leeuwen extends the definition of affordances to include the 'meaning potential' of the material and cultural aspects of modes (Jewitt, 2009, p. 24). In the context of the action research project, I was interested in exploring the collective affordances of the various modes used in each cycle of activities for contributing to changes in attitudes towards the local environment and to environmental good practice on the part of the children.

Specifically with regard to working with children, Harrop-Allin (2017), states that "[a] multimodal perspective enables insight into the complexity and richness of children's integration of sound, gesture, language, movement, and visual design in storytelling" (p.27). Kress, in an interview with Lindstrand (2008), states that "[p]eople, whether 3 or 30 years old, are intelligent makers of representations through which they represent how they see the world, whether in the way they make sentences or in the way they shape meaning in other modes …" (p.65).

In South Africa, two proponents of multimodality are Susan Harrop-Allin and the late Pippa Stein, who provide accounts of work that they have done with children. Stein (2008), did extensive work with primary school children in Soweto from the mid-1980s. Here she was concerned with the disparity between what was being taught in the classroom and what the children were experiencing in the streets and in their homes, since the political climate was fraught with violence and bloodshed under apartheid (p.4). The children were afraid to talk openly about what they were experiencing, as talking was dangerous, and therefore a safe space, which Stein refers to as "unpoliticised zones where children could explore and represent their worlds in playful, imaginative and uncensored ways that combined multiple discourses and modes of representation" (p.4). Drawing too, was used as a tool to enable the children to communicate what they found frightening to articulate (p.6).

Another example that Stein provides shows the affordances that drawing from the participants' intimate experiences can have for children. This was shown in 1994, through a process of story-telling with a group of grade seven children, who were encouraged to talk in their home languages, contrary to the authorities' instructions. Within the safe space provided for them, over a period of a year, over one hundred stories were told, in eight South African languages, using not only speech, but also writing, image and multimodal performances. Of the process and the results Stein has this to say: "It was clear to me that the particular performance styles were deeply familiar, rooted in the children's everyday lives and that these formed part of broader histories of communicative practices integral to their social and cultural worlds beyond the classroom" (2008, p.9).

Harrop-Allin's research has focused on music and children's games. Her ethnographic research in primary schools, also in Soweto, revealed sophisticated multimodal creative practices that could be resources for formal learning in the classroom. Working with trainee teachers in three primary schools, she was concerned about the disparity between what was found in school curricula, and specifically the Arts and Culture curriculum, of which music was a small component which teachers were ill-equipped to teach, and the richly multimodal creative activities evident in the school playground. She found that classroom teaching comprised written facts presented to the children (Small, 1998), with no live music beyond perhaps simple repetition of cultural songs. In analysis of playground games, Harrop-Allin (2011), found that "[c]hildren's use of rhythm, intonation, words and dance demonstrates their ability to work across expressive modes and use these modes for the purpose of playing a game" (p.5). From there, working with the trainee teachers, she aimed to identify aspects of the games that could be used in the classroom. Also important for this study is another finding in Harrop-Allin's study that "a further reason why children's musical games are particularly important pedagogically … is because they highlight how and why children learn through play" (p.6).

2.10 Conclusion

Importantly for the eco-feminist underpinnings of this study, Wall (2006) in Newman, states that "feminist research using multiple research techniques, has grown in reaction to the "male-oriented" perspective that has predominated in the development of social science" (Newman, 1994, p.72). In my opinion, the following statement succinctly sums up my research project:

> In contrast to the dominant, objective, competitive, logical male point of view, feminist researchers "emphasize the subjective, empathetic, process-oriented, and inclusive sides of social life" (ibid).

As an environmentalist, visual artist and puppeteer myself, this study had its origins in my own experience and is process-oriented as will be explained in the next chapter.

This chapter has outlined aspects of the theories of deep ecology and of eco-feminism which, together with social change and community development theories, underpin a study which adopted a multimodal approach to the employment of applied arts in an action research project which aimed to initiate environmental behavioural change.

The research design is described and discussed in Chapter Three.

Chapter Three: Research Methodology



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3.1 Mapping the chapter

This chapter begins with an overview of the research paradigm within which the study is situated, which is followed by an outline of key tenets of action research, participatory research and applied arts. A description of the research site builds on the information provided in Chapter One and is followed by an account of the process of selecting child and adult research participants. The range of research instruments used is outlined and this outline is followed by a discussion of reflective practice, which played a central role in this project. The chapter concludes with an outline of the approach taken to data analysis and of the ethical considerations taken into account in the research.

3.2 Research paradigm

Given its focus on human interactions, this research is located within an interpretive research paradigm. In preference to large numbers of respondents, as one would find in a quantitative scientific enquiry, a relatively small group of children and adults were selected to participate in this qualitative study.

Padgett offers a succinct account of the value of a qualitative approach for some kinds of research: "[q]ualitative researchers housed in the liberal arts and sciences have greater freedom to be creative and to take intellectual risks whether they choose to or not" (2004, p.3).

According to Higson-Smith and Sithole, when a researcher engages in a qualitative study s/he aims to investigate a problem from the respondent's point of view: "…reality is interpreted from the respondent's frame of reference" (2018, p.16), and this is important to acknowledge with reference to development theory where a bottom-up approach is called for (Padgett, 2004 p.3).

This small-scale study investigates whether a multi-modal arts-based intervention is productive for changing attitudes and behaviours towards the local environment within one micro-environment in South Africa.

3.3 Action research

Action research was specifically chosen as the methodological approach for this investigation because of its central concern with change and because of the central role of reflection in each cycle of an action research intervention. Two questions raised by Leitch and Day are very important to me: "How do I improve my practice?" and "How do I live my values more fully?" (2006, p. 185, inverted commas in the original).

Leitch and Day (2006) explain that a wide range of research tools can be used in what they term an 'action enquiry': "The action inquiry is carried out through a variety of means including autobiography, dialogical conversations, fictional stories (Evans, 1994) reflective writing and journals (Holly, 1998)" (Leitch and Day, p.185). As I have been a reflective writer most of my life, I was pleased that I would be able to use a reflective journal as one of the research tools in this study.

Action research conventionally moves through a series of cycles with each cycle characterised by pre-planning, action followed by collection of data and reflection on this data, re-planning based on the reflections, etc. (Kemmis & McTaggart, 1988). Leitch and Day explain that "… researchers become aware of the values that drive their work so that they may be clear about what they are doing and why" (2006, p.185).

Bess et al (2018) state that Paulo Freire "believed that knowledge is created through people struggling, observing, analysing and arguing with each other about how to make the world a better place in which to live" (p.89). I suggest that this Freirean view of the process of knowledge creation describes much of what is central to action research. In this form of knowledge generation and community development, it is the on-going grappling with data that informs planning and fieldwork and the reflection on fieldwork which then informs further

planning and action. Jean McNiff refers to both the democratic orientation of action research and to action research for environmental good:

> [a]ction research is universally acknowledged as about change, collaborative and democratic practices, and a commitment towards humans' and other entities' well-being, including animals and the living planet (2014, p.14).

This latter statement resonates with the broad underpinnings of environmental theory and practice discussed in Chapter Two. The centrality of a problem to be addressed through social change, is a common theme in the action research literature, as outlined by both Marce (2007, p.126), and Small and Uttal (2005, p.124).

I deemed this approach to research appropriate for my study too, because it enabled investigation of the successes and limitations of previous change projects in the area (a reconnaissance phase) followed by cycles of planning, acting, collecting data and reflecting on this data as advocated by the action research literature (e.g. Kemmis and McTaggart, 1988; McNiff, 2014).

The reflexivity within this method of inquiry is an aspect of action research that I value above all else, since it enables on-going revision of plans and practices and promotes a level of 'objectivity' (Leitch and Day (2006, p.184).

3.4 Participatory and applied research

Gaventa (1993), in Sanoff (2000), describes participatory research thus:

> Participatory research attempts to break down the distinction between the researcher and the researched ... In the process, research is seen not only as a process of creating knowledge, but simultaneously as education and development of consciousness, and the mobilization for action (p.63).

What Gaventa describes dovetails with the intention of this study in that its aim is not only to raise awareness of environmental issues within the children in the short term, but also to educate and mobilize children to take action towards a sustainable clean environment in the long term. Here the participation of the research group was fundamental in the planning of, and the reflection on, the interventions. Relevant to the pedagogic aspects of the study is the observation of Collins (1999): "An alternative approach to top-down education is one which encourages learners to participate in their own learning processes" (1999, p.7).

A participatory and bottom-up approach, with the inclusion of participants as far as possible in driving the project with the researcher, is aligned with the inclusivity that both deep ecology and eco-feminism call for and, wherever possible, was the approach taken in this study.

3.4.1 Applied arts in research

On the use of visual arts in research, Huss, Kaufman, Avgar and Shouker, advise the following:

> …as visual methods rely less on language to communicate than the traditional interview or focus group, they can be used in cases where participants have limited literacy, or where there are language barriers between the research team and participant (Bagnoli, 2009) therefore … visual, arts-based methods have the potential to minimize power imbalance between researcher and participant, thereby producing more culturally and context-sensitive information (2015, p.5).

This advice is relevant to this study in that there is a distinct power imbalance between the research participants and myself since it is situated in a rural, post-apartheid South African site in which imbalances remain in place. Additionally language issues are problematic in that we do not share a common primary language. And finally, for child participants, there is the power imbalance between adult and child.

In Africa, the use of applied theatre in work with children and adults is not new. For example, Chivandikwa, Mhlangu-Gubda, Mahso, Chinokwetu, Kewley and Van Hout (2020) note that "arts-based research, particularly theatre performance, has been successfully employed in schools, communities, and workplaces as part of HIV, and sexual health programming in the SSA [Sub Saharan Africa]" (p.55). These authors used forum theatre in Zimbabwean women's prisons in order to open communication between inmates, prison officials and health workers. They concluded that forum theatre provided a solid platform and a safe space for dialogue between all stake holders, and, as advocated by Sullivan and Lloyd (2006), deepened understanding of complex issues.

What follows is a brief outline of South African theatre companies that employ applied drama in their work.

3.4.2 The role of applied theatre in informal education in South Africa

A number of the performing arts companies and organizations in South Africa that work in informal education focus on social issues. Before offering a brief description of some of these companies, I outline reasons for adopting an applied theatre approach in this context, since most companies choose to take this approach to their work.

South Africans still suffer the consequences of apartheid despite its demise more than two decades ago. There remains a patriarchal notion of the elite viewing the poor as less than, as uneducated and unable to take proper care of themselves, and in rural areas this perspective is most visible in the mistrust between 'black' and 'white' people. Sen (2000), and Swanepoel and de Beer (2006), refer to situations where poverty creates helplessness, with the danger of the elite then viewing poor people as being stupid.

For Taylor (2003), Conquergood (2002), and Shaunessy (2015) the benefits of applied theatre are many - community needs are the driving forces - within a bottom-up approach, it exists outside of mainstream theatre, includes a level of activism, and involves the engagement of audience.

In this study there was no intention of making theatre with performance a main objective or final outcome. While there were performances, these were the culmination of work done with the children over a period of time, that resulted in opportunities to showcase the work to families and friends. The exception was the piece that was made specifically for the Wakkerstroom Water Weekend in 2020, during the first part of the final cycle of intervention. These performances did, however, afford some data collection opportunities, despite this not being the prime objective of the interventions. The primary objective was participation (Shaughnessy, 2015, p.7).

There are a number of organizations in South Africa that use applied theatre in their work to educate, uplift, transform and provide a platform or voice to the voiceless and some of this work was drawn on in the activities undertaken with the participants in this study.

Drama for Life (DfL) is an applied theatre division within the School of Arts at the University of the Witwatersrand and is the academic unit within which this study is located. The programme educates post-graduate students in arts-based methodology, and social issues that are dealt with include HIV/Aids, TB, gender issues and sexual health.

Wellworn Theatre Company is an applied theatre group that specifically focusses on environmental issues. Using song, dance and catchy phrases, this energetic group of play-makers appeals to children of all ages. Wellworn Theatre was brought to Wakkerstroom during the last cycle of this study, to perform their production *Galela*, which focusses on the importance of taking care of water resources. (https://wellworn.org.za/ accessed 13/11/2020).

Jungle Theatre Company (JTC), highlight the value placed on South African cultural heritage and indigenous knowledge. The connectivity that JTC aims to create between these and the natural environment, are what deep ecologists aim for. Bringing visual arts into the mix, indicates a multimodal approach similar to the approach taken in this study. (http//www.jungletheatre.co.za; accessed 14/11/2020).

Another company that uses applied theatre in its work is Magnet Theatre, where all aspects of the arts are incorporated. These artists engage in extensive training of young people in all art forms, as well as providing a platform for job creation. (https//www.magnettheatre.co.za; accessed 14/11/2020). Recognizing that there is a need to bring the arts out of mainstream education, Magnet Theatre takes the arts into rural areas.

One of the longest established companies in South Africa that aims to uplift and educate learners through the arts is arepp: Theatre for Life. Since 1987, this company has used puppetry, dance, music and play-making to develop social skills within theatre productions. (http://www.arrep.org.za accessed 14/11/2020).

These are some of the companies in South Africa that are well versed in the methodologies of applied theatre. Other companies that also work within this framework are the Forgotten Angle Theatre Company in rural Mpumalanga, and Ubom! and First Physical, both situated in Makhanda. Other companies, such as Lunch Box Theatre, are issue-based, with some environmental concerns presented. These organizations and companies show how applied arts can be used as platforms for informal education, in advocacy and in upliftment of marginalized groups in South Africa.

Besides these groups and companies that work within informal education, it should be noted that relevant academic units are emerging in South African universities in response to some of the environmental challenges of our time. DfL now offers a Theatre and Ecology Masters degree. Academic programmes of study are also offered by the Stellenbosch Sustainability Institute, and the Arts Centre at the University of Johannesburg which is collaborating with the Department of Environmental Sciences. Further to this, scientists are increasingly turning to the arts in order to disseminate their findings to a broader ‘audience’, with the Kaalspruit River Project of the University of Johannesburg being one example of this outreach.

It is evident that applied theatre and the visual arts already play a role in informal education in South Africa, and that there are ‘pockets’ of people and organizations that are using the arts to raise environmental awareness.

3.5 Description of research participants and research site

There were two separate categories of research participants for this study: children and adults. In the initial planning phase of the research, adults were included for interviews and informal conversations only, with children being the sole participants in the arts-based interventions. This changed during the course of the fieldwork, where adults were then included in Cycles Two and Three. This section begins with an account of the selection of child participants which is followed by a description of adult participants.

3.5.1 Children

For Solberg (1996), "[s]everal factors need to be taken into account when designing an appropriate methodology [in researching with children]: the research question, age, gender and ethnicity of the children, the setting and context of the research" (Solberg, 1996 in Mauthner, 1997, p.26). This was particularly the case for this study. Bess et al (2018) state that "[t]he quality of research … is directly related to the sampling procedures, the adequacy of the technique chosen, as well as the professionalism of implementation and the appropriacy of the sample size" (p.178). One reason why adolescents were not considered as potential research participants is that it was not possible to engage with staff at the nearest high school. I also assumed that younger children would be more receptive to interventions than teenagers, and indeed, over the course of the study as the children grew into their teens and became less engaged, this proved to be a correct assumption. I was encouraged by Hart's claim that a key difference between older children and adolescents is that young children are outward-looking, while adolescents are more reserved (1999, p.28).

The research participants were selected from primary school children in eSizameleni between the ages of six and twelve. Fortuitously a working relationship between myself and a woman met through the Wakkerstroom Music Festival developed while child participants were being selected. Charity Nsibanda[1] runs The Potters' Place after school programme and was able to assist me in this. Selecting research participants from this programme also enabled me to develop relationships with parents with more ease than would have been likely if the children had come from homes where the parents or care-givers took little or no interest in the development of their children. Communication with parents was made through the after school programme's database, and this enabled permission, letters of consent and notification of

[1] Charity Nsibanda has agreed to be named in this thesis.

upcoming events. As Holmes (1998), has stated: "[a]cquiring permission to conduct fieldwork with children on school premises is an arduous and time-consuming task" (p.15), so I was therefore privileged to be able to circumvent challenges faced by many researchers who work with children.

My sampling began with criterion-based, or purposeful, sampling which, as Marce (2007) describes, "implies that you decide at the design stage of a study the typical characteristics of the participants to be included (criteria to be met) and the number of participants" (p.80, brackets in the original), which was followed by 'snowball sampling' – or 'chain referral sampling'. Here participants already enlisted into the programme 'spread the word' and enlisted others who might be interested and appropriate for the study (Bess et al, 2018, p.176).

Selection of children for the research project was based on a command of basic English and an indication of interest in participation. However, this command of English was not necessarily a firm criterion for inclusion into the project because I had a bilingual research assistant who could assist in the overcoming of language barriers. Further snowball sampling occurred once the interventions began. Snowballing enabled eSizameleni children attending Village Primary and Volksrust Primary School also to join the group. This meant that the final group comprised a broader demographic in terms of socio-economic background, and children who were very enthusiastic about participating in the interventions.

All the children were isiZulu speakers and all 'black', except for three girls whose demographic classification was mixed race, and all had English as an additional language. Interventions were conducted in English with isiZulu translation where necessary. The initial sample group was made up of twenty-five children, but this number fluctuated somewhat during the course of the fieldwork, dropping to eleven and then rising to seventeen in the final interventions.

Another 'side-effect' of the assistance from Ms Nsibanda was that she permitted Ms Garland, the manager of the local branch of BirdLife SA, and myself to conduct environmental workshops on Thursday afternoons with the children of The Potters' Place. The significance of this work was that I was able to reach more than just my research participants with some of the interventions.

Given that children were the core participants in this study, some attention needs to be paid to learning and behavioural theory. As much as the work of Piaget, one of the earliest theorists of cognitive development in children, is now considered to have some limitations (e.g. Cohen,

2006), his description of stages of cognitive development is pertinent to this study in that the group of children consisted of various ages, and understanding their likely different levels of cognition was important for engaging with them during the interventions. Piaget viewed cognitive development as "a process of organization, the elements of which are individual operations" (Formanek et al, 1976, p.15). He defined an operation as an internalized action and classified cognitive development into four periods: the sensory-motor period (birth to about two years), pre-operational period (two to seven years), concrete operational period (seven to eleven years) and formal operational period (eleven years and upward) (ibid. p.12).

In terms of Piaget's stages, the children in the study could be 'classified' as operating at either the concrete operational or the formal operational levels. There is a distinct difference in the cognitive abilities of these two groups, and this may account for some of the differences in child participants' responses to some of the activities in the interventions. For example, within the concrete operational period "[j]udgements of the child in the intuitive subperiod are frequently inconsistent since they lack underlying cognitive principles", whereas "[t]he child in the period of concrete operations is less egocentric and is capable of dealing with two variables at the same time" (ibid). As much as differences in cognitive level may have affected children's responses to the interventions, such differences were enabling for other aspects of learning to be achieved. The guidance and assistance of those children who, during the course of the study, reached adolescence, became most useful. A study by Roazzi and Bryant (1998) where older children were placed in a situation with younger children, found that "social interaction helped the young children to crack the problem which they did not manage when they had no help" (p.69). While Piaget tried not to influence the children he studied, the Russian psychologist Vygotsky argued that children, "being naturally social, were at their best in social situations – and often in social situations where an [older child or] an adult helped them" to accomplish what they could not achieve on their own (Cohen, 2006 p.68), as was frequently the case in the various activities included in the interventions.

However, Cohen (2006), urges consideration of the effects that media and globalization have had on the cognitive development of modern children (p.55). In this light I had to consider what other aspects of the social environment the participants were exposed to, and what effect this might have had on their cognitive development. Certainly, the children in the research site are constantly exposed to the media in the form of television, but at the same time, both physical and cognitive development may be impeded by health problems resulting from cooking over open fires, acid rain and fallout from local coal fired electricity plants.

Cohen (2006), after reviewing the long running debates on the respective influences of nature and nurture on children's cognitive development, argues that "[t]he family environment, social, class, individual experiences, the rewards and punishments a child experiences, determine his or her development" (p.3).

Many of the children in eSizameleni come from homes in which they have experienced violence, and some come from grandmother or child-headed households. If primary enculturation occurs in the home, what perception of the natural environment do the children of eSizameleni have if they are only exposed to television at home and informal dumping outside of the home?

I conclude this section with pertinent advice from Hood, Kelly and Mayall (1996) who state that "[u]nderstanding children and childhood, if one starts from the social position of adulthood, requires listening attentively to their agendas, and participating with them in the research process" (p.119). This is in alignment with participatory and applied approaches to research.

3.5.2 Adults

Adults were initially selected only for interviews and informal conversations, with these primarily being for reconnaissance purposes. The adults interviewed were chosen because of their involvement in various projects that had been undertaken in the past in the village, or because they were residents who would possibly have knowledge related to these projects. Other interviewees were teachers who work at various public and private schools in the area. Adult participants enlisted for informal conversations were any persons willing to engage in a conversation on the themes of this study. This then included friends, colleagues, labourers and domestic workers. However, analysis of data gathered during the fieldwork in Cycle One indicated that adults needed to be included in the research interventions as well, in order to enhance the possible success of the project.

In alignment with the processes of action research, the adults who became research participants emerged through engagement with champions of the environment and groups of people who work within this sector. Individuals were encouraged by the work I was doing with the children and willingly stepped forward to assist and work on further projects with me. All of the adults who became research participants lived in eSizameleni and were thus part of the community in which the problem of informal dumping existed – the problem that led to this study. Most of the participants were first language isiZulu speakers with some Shona speakers who had

emigrated from Zimbabwe. All participants were 'black', some employed through the municipality, some employed in domestic or hospitality work and others unemployed.

3.5.3 Description of the site

Most of the research participants live in Reconstruction and Development Programme (RDP) homes, some of which were built during the course of the study. All have electricity and water, but it is important to note that the new RDP homes had to wait for up to two years for piped water and up to three years for electricity connection. The relevance of this will become clear in the following chapter with reference to poor community service in the area, and the political dimension that affects projects such as this one. None of the houses have geysers provided by the council, some have no piped water inside. Older homes have taps and toilets outside.

All residents of eSizameleni live near one informal dumping site or another, and all residents of Wakkerstroom are faced with litter in the streets and on the pavements, and dumping in the form of rubble and garden waste. Domestic animals roam freely and are often seen to be grazing or scratching in waste strewn areas. There is one playground allocated to the children and this is a small swing and slide adjacent to the village library four kilometres from where they live in the township. There are no green spaces for the children to play in.

3.6 Phases of the research

This study was planned as an intervention with four phases:

(i) reconnaissance: here an investigation was undertaken in the research site from which cycle one of action research was planned

(ii) action research cycle one: implementation of the first cycle as per the planning from the reconnaissance phase

(iii) action research cycle two: learning from the first action research cycle were implemented in cycle two

(iv) action research cycle three: learning from the previous two cycles were implemented in cycle three, with final analysis of findings

Authors on action research describe reconnaissance as, for example, knowing "… what the backstories say as well as the main public stories" (McNiff; 2014, p.14), giving an overview of the research site and problem. McNiff also provides an example in a military context where scouts are sent out to bring back information. This information is "… acted upon to inform

strategy. The strategy is implemented, and gains and losses evaluated" (p.15). This phase is particularly important in the context of this study because it "provided the details of how to develop social relationships of groups and between groups to sustain communication and co-operation" (Adelman; 1993, p,7).

As explained above, findings from the reconnaissance inform the first action research cycle and reflections on what has been learned from analysing the data collected during each cycle are used in planning the next cycle. While it is possible for an action research project to continue through many cycles, in reality, most action research is planned for a finite period of time, as was the case for this study.

3.7 Research instruments

A multimodal approach was adopted within a framework of applied arts, with diverse modes used in the interventions within each cycle, in order to acknowledge the range of interests and talents of the children (Stein, 2003; Stein, 2008) with a view to sustaining their participation in the workshops. This approach aligns with Taylor's claim that "[t]he more avenues of inquiry reflective practitioners can tap into, the more perspectives sought, the more likely their conclusions can be read as credible ones" (2003, p.53). The affordances of each mode were considered individually and also collectively. Flores (n.d.), argues for value of the arts in education:

> …art is the most universal and influential cultural object that humans have to reconcile their connection to the world and to free themselves from the conditions of their immediate environment and empowers them to think and talk about entities that are displaced in both time and space… (p.8).

Importantly for this action research project she also argues that "integrating art-based approaches in youth engagement and development initiatives stands as a key factor to their empowerment and sense of civic responsibility" (p.14).

3.7.1 Play-making

With the guidance of professional theatre practitioners, the children made plays with a focus on environmental issues and performed these plays for their peers and their families. The objectives here were threefold. The children could:

- learn the rudimentary principles of play-making;

- be encouraged to think about the environment on their own and claim their own voices;
- be enabled to transmit messages about the environment to older members of the community.

It is important to note that the focus was on the process of learning acting skills and using applied theatre as a communication and pedagogic tool, with performance being the secondary objective, although it was also important that the parents and care-givers were shown the results of what their children were doing while working with one another and with myself.

The first playmaking intervention was undertaken by Craig Morris[2]. He facilitated a workshop where the children were taught basic acting and mime skills. The second intervention was facilitated by Susan Hall[3] using process drama. The final play-making intervention ran alongside the Wakkerstroom Water Weekend, and focused on the importance of clean water.

The children also made their own plays which they performed for friends, families and community members throughout the fieldwork. In preparing for these performances, they were assisted by myself and my research assistant. The intention was to provide opportunities for the children to implement what they had learnt from the professional practitioners in performing their own interpretation of environmental degradation and its consequences. These performances are described in the relevant sections of Chapters Five to Seven.

3.7.2 Puppetry

As long ago as 1989, Schmidt and Schmidt were advocating the use of puppetry in education to channel children's innate creativity. Perceptively, the authors refer to environmental issues, amongst others, when introducing puppetry as a possible pedagogic tool: "The problems brought on by overpopulation, dwindling resources, ever growing impersonal institutions, and the complexities resulting from the increased interdependence among nations requires that succeeding generations be creative thinkers and problem solvers" (1989, p. 4).

A number of interventions where information transfer was the objective were presented via puppets, through story-telling. During one intervention the children were taught how to make paper packet puppets, after which they constructed their own puppet shows and performed these in groups for each other. Since the children had never experienced puppetry first-hand,

[2] Craig Morris has agreed to be named in this thesis.
[3] Susan Hall has agreed to be named in this thesis.

only ever having seen it on television, this was something new and exciting for them. The nature of 'one degree of separation' between puppet and puppeteer enabled the children to talk more freely and with confidence (Schmidt and Schmidt, 1998). This in turn enabled me to gain an understanding of how they were thinking and how they were responding to the interventions.

In many of the interventions role playing was used. According to Schmidt and Schmidt, difficulties of shyness can be overcome if puppets are used in role playing because using puppetry adds anonymity (1989, p.10). In addition, and in the case of this research project, the difficulties of language differences were also overcome with the use of puppetry, and the disparity between socio-economic positions was set aside when puppets were used. It seemed that the 'one degree of separation' permitted the children to discuss issues with more freedom than when they talked about them without using puppets. Opinions expressed were the opinions of the puppets while the manipulator remained safe.

It is erroneous to assume that adults are not willing to embrace puppets in their various manifestations, and once I had realized that I needed to include adults in interventions, puppets were used on numerous occasions. For example, in introducing myself to the Delta Park Environmental Group which will be discussed later, I used a rod puppet to tell a story entitled the *Lunch Box Boy* (see Appendix I). It was on this occasion that I first witnessed the power of story-telling with a puppet for adults in this community and from that time onward I used the puppets as much as I could for communicating messages.

3.7.3 Site visits

Since it was felt that the children needed to experience first-hand the effects of littering and informal dumping, and hopefully through different eyes as a result of the interventions, a number of visits to various sites where littering and dumping occurred were arranged. It was hoped that the 'different eyes' would enable them to really look and see and, further to that, discuss and reflect through artworks, the destruction of the environment to which their behaviour was contributing. Sites visited were the town dump, 'stop and hop', (where we would drive through the township, stop, 'hop' out and view the informal dump sites), walks around the school grounds and surrounding areas, and the grounds around the village library and municipal buildings. The latter two sites were specifically chosen because this is where children spend most of their time and where much littering is to be found that is directly due to their behaviour. Unfortunately, the wetland and streams were deemed out of bounds for this study, both by the WNHA and the University's ethics committee.

3.7.4 Sculpture and craftwork

Various forms of craft work were taught to the children during the course of the study. The purposes of this were threefold: first, to show how objects, either made for their aesthetic value or as useful objects, can be made out of waste materials; secondly, to show how waste can be turned into a commodity for sale; and finally, to provide a new kind of learning experience for the children.

At several workshops children made objects that were used during other interventions. For example, musical instruments were made out of tins and bottles and subsequently used in performances. Discarded fabric was upcycled and turned into banners for parades, and found objects were glued together to make three-dimensional fantasy creatures.

The children were introduced to papier mache mask making and to clay making for use in sculpting animals. These processes were not necessarily attached to interventions that had littering as a focus, but were rather used to extend children's experiences of what the arts can afford. It was also through these forms of art that I was able to provide a positive alternative to what could be considered a relentless focus on environmental degradation. These craft and sculpture workshops were conducted at my home, where the children were also given the opportunity to play in a green space, which they did not have at home. The artworks they created were entered in various art competitions held in the village, and many of the children won prizes for their work.

3.7.5 Drawing

After site visits, puppet shows, story-telling, etc. the children were asked to respond to what they had seen and heard by drawing what they remembered and how they felt. This activity enabled them to reflect on information and their responses to it and on the ways in which it had been presented. It also enabled the collection of concrete data on their environmental awareness and how it changed or did not change over the course of the three cycles of interventions. The drawings assisted me to establish whether or not the children had understood concepts, problems and issues. Analysis of the drawings had potential to assist in the credibility of findings from the study, a key concern in research endeavours of this kind. As Kress and van Leeuwen (2006) put it: "[o]ne of the crucial issues in communication is the question of the reliability of messages. Is what we see or hear true, factual, real, or is it a lie, a fiction, something out of reality?" (p.154). For example, the children may have communicated verbally

that they understood something, but what appeared in a drawing could indicate something different.

In addition, it should be noted that most children simply enjoy drawing. As Kress and van Leeuwen state, they … "[drawings] are seen as self-expression, rather than as communication – as something which the children can do already, spontaneously, rather than as something they have to be taught" (p.33). Ya-Huei (2014, p.59) concurs with this statement too. In my opinion there is an honesty in the construction of artwork with children, in that there is nothing at stake for them, simply a natural response on paper. It provides an alternative to linguistic communication on their perception, which is still developing within children, and, importantly within this study, enabled cross-language understanding which was valuable in data analysis.

With regard to using visual art with children as a research tool, Wilkinson and Ennew (1994), add:

> It behoves us to make use of these different abilities rather than asking children to participate unpractised in interviews or submit them unasked to our observational and surveilling gaze. (Wilkinson 1988: 81-90: Ennew 1994: 67-9) (p.189).

All drawings made by participants in the study were photographed with their permission, some were returned to the children and some kept in a locked cupboard at my home.

3.7.6 Interviews, informal conversations and focus group discussions

Bess et al (2018) state that "[t]he most frequently used method of gathering information is by asking respondents to express their views directly" (p.187). What I refer to as informal conversations began months before the inception of this project, and were the catalyst for the project. Through conversations with village elders, key role players were identified. These were then sought out and either engaged with through informal conversations or structured interviews. Again, these in turn led to an extensive list of further possible interviewees. Engaging the 'person-in-the-street' was important for gaining an understanding of the social structure of the area. Informal conversations allowed for non-structured interviews giving participants the opportunity to provide information that may not have been forthcoming in a formal situation. Such conversations are similar to what Bolak terms 'interactive interviewing':

> The feelings, insights, and stories that researchers bring to the interactive encounter are as important as those of the respondents. Interactive interviewing … may involve participating in shared activities outside the formal interview situation (1997, p.121).

The driving factors here were what Philip Taylor (1996, p.45), refers to as 'hunches', which can be followed up on. Teachers were invaluable sources of information on what is taught in the schools and how it is implemented. Other role players in governance and NGOs were also sourced.

Many times, after reflection in my journal after a conversation or interview, I returned to the respondent for further conversation. This was a valuable means of gathering more information after the initial contact. Romanyshyn has advised this form of data collection with regards to interviewing as a research method:

> After the dialogue is finished, I encourage the researcher to wait some time, perhaps even for a day or two, before he or she begins to examine it for its meanings. … More often than not the work of reflection sets the stage for another dialogue (2006, p.45).

Focus group discussions were held initially with the target group of children in order to establish how proficient they were in spoken English. These discussions provided guidelines as to the research assistant I needed to source, that is, whether this person needed to be someone who was completely bilingual in English and isiZulu or someone who had more understanding of environmental issues. Bess et al recommend the use of focus groups with children and adults with low literacy levels, as being a fast and efficient means of collecting data (2018, p.200) with which Holmes agrees, suggesting that "structured individual interviewing is much too stressful for children and perceived by them as threatening or anxiety provoking" (1998, p.61). This was certainly the case with the participants, since I noticed that speaking one on one with me caused them anxiety about their proficiency in English.

Discussions such as these, both structured and semi-structured, have value in that specific answers to questions could be sought, but also because they led to more questions that were relevant to the study than had previously been considered. It is the incidental knowledge that comes to the fore that makes for a richer research process.

3.7.7 Reflective practice

Eco-feminist theorists call for equality among stake-holders in projects. While such equality is extremely difficult to achieve, a continual process of reflection throughout this study has been productive for my engagement with research participants in ways that have attempted to lessen inequalities. Reflection plays a key role in action research and took various forms during the research process. The research journal was the primary means of reflection, where all aspects

of the process were recorded. These included the shaping of the research question from the outset, the planning of interventions, reflection afterwards on what occurred during each intervention and challenges faced.

Guides to action research frequently refer to the important role of a critical friend for obtaining insight through the eyes of another person. Both the journal and the critical friend as means of promoting reflective practice are elaborated on below.

3.7.7.1 Journaling

A research journal was used to accumulate thick description of the research process and to interpret and reflect on what Geertz terms "the culturally specific 'webs of significance' people both spin and are caught up in" (2001, p.215, inverted commas in the original). As a visual artist, the use of a journal from a very young age has been pivotal to the manner in which I work. Of all the tools used in this study, the journal has been the most important means of shaping, planning, reflecting on, and re-reflecting on the research. It has been the key tool for promoting 'objectivity' and reflexivity, for keeping a record of interventions and their successes and failures, and for planning for the following cycle. Of the value of written recording of research processes Taylor (1996) claims that:

> If the human instrument is the principal medium for raising the agenda in reflective practitioner research, then the log-book is the place where the agenda is recorded. … Diaries, journals and portfolios have had a long-established tradition in artistic practices (p.41).

As I experienced in this study, in the humanities second guessing and second guessing again, with reference to validity of process and findings, is one of the key challenges. Michael Taussig, an avid proponent of the notebook as a research tool, states that "[a] fieldwork diary is like a scrapbook that you read and reread in different ways, finding unexpected meanings and pairings as well as blind alleys and dead ends" (2011, p.47). Through continued writing and referring back to writing, and then writing on the writing as it were, I was able to capture data that would have been impossible to access without the journal. Given the messiness of some types of research, this study included, there needs some sort of grounding place, a space where the mess can be ordered and re-ordered.

Enabling neutrality and objectivity is a most difficult task for researchers the world over. Many times during my fieldwork I was faced with issues that forced me to reflect on myself as a 'white', middle-aged, privileged, female fieldworker working with marginalized people. This mainstream voice being the only voice heard, a phenomenon warned against in the work of

eco-feminists, was one that I took most seriously. Agar (1980, 1986/1995), in Holmes states that*:*

> … one of the most difficult tasks faced by fieldworkers is to overcome their own cultural backgrounds so that they may be objective in their interpretive task. Attempts to discard one's cultural heritage in the field and the subsequent writing about one's field experience are compounded by methodological problems brought to the forefront by cross-cultural researchers (Agar, in Holmes 1998, p.84).

It was through my journal that I was able to reflect on the influence of my own cultural background while working in the field.

Bess et al (2018), and McNiff (2014), both advise researchers to be self-critical, aware of bias, and researcher/researched positionality, avoiding the 'bad Theory' that could otherwise result (Mitra, 2010, Philips, 2000, p.8, capital T in the original). Being able to constantly reflect and re-reflect through the journal, I was able to establish what patterns were emerging, and thereby attempt to halt bad habits and retain good ones.

Important for this study was the opportunity to use reflective writing from the journal in the thesis. This enabled me to heed this advice from McNiff:

> … given the other-oriented nature of action research, it is not enough for a researcher to claim that they have realized their personal values in practice unless they can show how these personal values transformed into accounts that benefited others. This means gathering data to show how your personal learning contributed to others' sense of well-being and explaining this throughout the text (2014, p.54).

Constant self-criticism within studies such as this is important with regard to interventions and the manner in which they unfold, and perhaps change, contrary to the initial plan. Critical reflection enables interventions to be re-shaped between the cycles of action research. Preston advises that: … [r]eflection on action after the event may or may not tell us whether or not this was the 'right thing to do' at that time … (2016, p.84, inverted commas in the original).

Further to the writing that has been described and discussed above, other means of reflection were incorporated into the journal. Leitch and Day (2006) list a range of reflective tools that have been used by researchers at least since the mid-1980s: autobiography (Day, 1985) journals (Tripp, 1988; Holly, 1989), image-making (Clandin, 1989), metaphors (Munby & Russel, 1989)… (p.185).

Douglas and Caless (2013) approve of the visibility of the researcher in the work, and indeed refer to visible researchers as trailblazers (p.92). With reference to the list provided by Leitch

and Day (2006), I made extensive use of mind maps for planning interventions, outlining thoughts in preparation for writing, and for consolidating information during the analysis phases of the study. Buzan and Buzan (2003) describe a mind map as "[a] powerful graphic technique which provides a universal key to unlocking the potential of the brain" (2003, p.55). Using this technique enabled me to bring together disparate aspects of the study, from observations, references and collected data which were then combined.

Finally, this vivid description from Frazier (2006) sums up the process and the importance of documenting events (and possibly also the desire to do so):

> Everything that happens is fluid, changeable. After they've passed, events are only as your memory makes them, and they shift shapes over time. Writing a thing down fixes it in place as surely as a rattlesnake skin stripped from the meat and stretched and tacked to a barn wall (2006, p.30).

3.7.7.2 The critical friend, or the 'inside I'

According to the action research literature, a critical friend can contribute to the research in various ways. Essentially the critical friend looks for 'blind spots' which are the issues, insights or errors that the researcher(s) may be missing, for whatever reason. In the context of this study, my blind spot was an inability to recognise certain themes as they emerged in the behaviour and conversations with the children, because I was too embedded in the work.

As an artist, and working with the arts as tools for the study, I found that I faced the possibility of losing myself in the art, and not focusing on the participants, and I therefore ran the risk of missing valuable data. Since observing the participants, listening to their dialogue as well as analysing and reflecting on their participation was an important aspect of the study, I realised that I needed to step back and remove myself. Stepping away from the activities during some of the interventions, while the co-facilitator and research assistant took more active roles, I was able to take on the role of critical friend in relation to these activities.

Costa and Kallick provide a succinct definition of a critical friend:

> A critical friend, as the name suggests, is a trusted person who asks provocative questions, provides data to be examined through another lens, and offers critique of a person's work as a friend. (1993, no p.n.).

Since I was at the same time the researcher and the critical friend, which is a combined role that I have not come across in the literature, I began to refer to myself in this context as the 'inside eye', and subsequently as the 'inside I' – perhaps a slightly frivolous play on words. Being critical of the process that I had set up, and at the same time not being an active part of

some of the creative processes, enabled me to gain insight into aspects of the participants' behaviour, and also the manner in which the interventions could unfold without my input. Conversations between the participants as well as between participants and the co-facilitator and research assistant became more audible for me, since I was no longer focusing on the practical aspect of the interventions.

I tried to keep the fundamental principles of deep ecology and eco-feminism in mind throughout the fieldwork by recognising the knowledge and skills that others bring to the table, and by promoting as much equality of input among participants as was feasible. Through being the 'inside I', I was able to accomplish this more successfully than I had been able to previously, since the reflective practice was enhanced, and I felt that the quality of my reflection was improved. This is a clear example of the usefulness of action research in which action leads to reflection, and reflection leads to new action, and so on. As Costa et al (1993) observe: "It is only when you change the lens through which you view … your own practice that you discover whether a new focus is better or worse. But if you never change the lens, you limit your vision" (no p.n.).

3.7.8 Surveys and questionnaires

Initially surveys and questionnaires addressed to adults were not part of the planning for this study, but as the need to involve adults in the research became apparent, I decided to include these tools. A questionnaire was circulated via my research assistant and Ms NNsibanda. (See Appendix A), the purpose of which was to establish township residents' awareness of recycling, reuse and what they thought would be appropriate measures to bring about improvement in the area. The questionnaire was aimed at eSizameleni residents and not the broader Wakkerstroom demographic because none of the 'white' residents had attended the schools in the township. These questionnaires were completed by residents of eSizameleni that had not participated in any of the interventions that were aimed at adults. Questions were mostly closed-ended with some open-ended questions to allow for opinions to be expressed. To alleviate the challenges of obtaining information from older Zulu-speakers and children, I chose "… *fill-in questions* [which] constitute a transitional type of question between open-ended and structured, since no format is suggested but only a short format is expected" (Bess et al, 2018, p.211; italics in the original).

With the disruption by COVID-19 of the final intervention in the first term of 2020, a further questionnaire was distributed (See Appendix B). The aim of this survey was to establish how

much knowledge residents of Wakkerstroom had about the recycling drop off points that had been set up over the course of 2020. Again, questions were closed-ended with the option of adding comments at the end of the questionnaire.

3.7.9 Participant observation

Observation is a vital tool in social science research especially when working with children but also with people who come from different language and socio-economic groups which makes interviews, focus group discussions and written responses rather challenging, as Bess et al (2018) explain:

> …respondents must be aware of what they feel and think and be able to express it in order to communicate the information. This may be a problem with young children who are unable to analyse their feelings or accurately describe their experiences. In this case, observation of their behaviour will yield more objective information than direct questioning (p.196).

Participant observation sought to provide further triangulation of the data collected in this study. Observations were undertaken in many different environments and included members of the community across all socio-economic categories, in addition to the research participants. Working for WAG brought me into the township at least once a week where I was able to observe practices of littering both in the home and on the streets, to monitor the state of informal dumps and engage with residents from the position of a worker affiliated with a formal organization. Working with the local marimba project also meant that I was visible and known to residents, particularly the children. All through the process extensive journaling was used to record and reflect on observations, challenges and insights as well as to constantly monitor questions that arose as the research progressed. This also assisted with triangulation with regards to littering and the disparate views expressed by litterers.

3.8 Data capture and analysis

Since this study involved multimodal interventions, analysis of data needed to be undertaken in different ways. Each method of analysis was used in isolation and then the findings were brought together for overall analysis. Underlying the methods used was a set of questions that I put to myself with regard to data analysis during the interventions and after the fieldwork ended. By doing this I hoped to maintain the integrity of the project's theoretical framing. These are the questions that I asked myself:

- Have the marginalized, i.e. women and children, been given a voice in line with eco-feminist thinking?

- Is the project sustainable, with reference to community development theory?
- Was action research an appropriate approach to use for this project?
- How have applied arts contributed to the study?
- Have the affordances of arts-based activities been successful in raising environmental awareness and in developing environmental good practice? If so, how?
- In answering these questions can I definitely state that I have answered my research question/s?

The answers to these questions relate to two kinds of questions about research: "To what extent have the research questions been addressed and answered? To what extent can these answers be trusted?" (Bess et al, 2018, p.22). These questions refer both to the validity of specific findings as well as to how these findings respond to the overarching research questions. The analysis of data from the interventions within each action research cycle is discussed in depth in Chapters Five, Six and Seven. The findings are considered holistically in Chapter Eight, the concluding chapter.

Regarding play-making, analysis focused on whether the children were able to successfully insert information on environmental issues into the workshopped sections of the plays, and whether performances communicated this information to audiences. As stated previously, performances were 'side-effects' of the interventions, since the participatory aspect of these interventions was the primary focus. However, informal conversations with audience members after each performance yielded data that was recorded in the journal and included in the analysis.

The analysis of artwork was more difficult because there were a number of factors that needed to be taken into consideration. Analysis took various forms depending on the theme of the intervention, but the following were considerations that impacted on final findings:

- Who were the children sitting next to when making their artwork? Some children preferred to sit alone and draw, which conceivably meant that the data gleaned from their work had more validity than work that was copied from a peer.
- What was the age of the child who had produced a particular drawing? This was important in that I needed to be able to compare apples with apples, so to speak. For example, in terms of cognitive development theory, it would have been inappropriate to compare a drawing made by a six-year-old with one made by a ten-year-old.

- Which school did the participant attend? Those children who attended Village Primary came from a higher socio-economic stratum, and had been exposed to higher quality education than those who attended Wakkerstroom Primary, and also they had been taught in English from Grade 1. This meant that there was a disparity between groups of children. Access to drawing materials and instruction was common in the former school but non-existent in the latter.

Keeping the above questions in mind, artwork was analysed with a focus on whether the given theme was satisfactorily transferred onto paper and then tabulated accordingly. Below is an example of a table in response to a drawing intervention, in this instance a puppet show, where the content had an environmental theme.

Table 12 Theme: response to rod puppet show

number of responses	71
no response to topic	6
copies	1

images or text responses	
those showing the connection between recycling and donation of tops in exchange for wheelchair	10
those showing the connection between bottle tops and wheelchair but no recycling	21
those who thought that the wheelchair was made out of bottle tops	14
no connection between the wheelchair and bottle tops	17
reference to the puppet, but no reference to the topic	3

Each of these tables differs somewhat, in that each intervention had different objectives, which are included in the tabulation. These tables, and examples of some of the drawings, are presented in the chapters on the three cycles of action research. However from a literature review on how to analyse children's drawings, the following was drawn upon to assist in the analysis:

> Composition … relates the representational and interactive meanings of the image to each other through three interrelated systems:
>
> (1) *Information value.* The placements of elements … endows them with the specific informational values attached to the various 'zones' of the image.
>
> (2) *Salience*. The elements are made to attract the viewer's attention to different degrees.

(3) *Framing.* The presence or absence of framing devices …, disconnects or connects elements of the image, signifying that they belong or do not belong in some sense (Ya-Huei, 2014, p.177, italics in the original).

Both the questions posed and the interactive meanings mentioned above contributed to the final tabulation of data captured and analysed with reference to art making.

The questionnaires were first analysed quantitatively and then key themes in the response to open-ended questions were identified. Findings from both types of analysis are presented and discussed and are then related to the reflections in my research journal. These questionnaires related to Cycles Two and Three and are discussed in the relevant chapters.

Keeping a log of waste collected from areas, which was counted in terms of numbers of black bags, and compared to previous numbers of bags collected from the same areas, enabled me to gauge if there had been a change in littering and dumping behaviours over time.

Recordings and reflections in the journal became the overarching method of tabulation of data. Here I continually entered findings in their various forms, for example, commenting on drawings produced during an intervention following a site visit, and then commenting again on tabulated findings based on thematic examination of the same drawings. Ongoing notation of my personal observation of littering behaviour by participants in the study as well as other members of the community, my written recordings of comments made by the participants and other community members, and my reflection on further thoughts regarding reasons for poor environmental behaviour, added to the thick description which Geertz (2001) requires of ethnographic study, but which is also relevant to other kinds of social sciences research such as this.

Returning to journal entries over and over again meant that I was able to ensure that there was constant review of the data generated. For the final writing of this thesis mind maps were created, which brought together key findings, knowledge-building and suggestions for further research in this field. These informed the writing of Chapter Eight, the concluding chapter, and are included there.

3.9 Ethical considerations

Ethical issues needed to be considered carefully since the research involved working with young children, who were further marginalized due to their low socio-economic status in a rural environment. As pointed out by Mayall,

> Researching children's lives raises a number of methodological issues to do with consent, access, privacy and confidentiality. Although these are not unique to children, they do present researchers with specific dilemmas to do with unequal power relationships, mainly age related, that exist between adult researchers and children participants (1997, p.17).

The aims and objectives were carefully outlined to both the children and the care-givers/parents prior to the commencement of the first intervention, with letters of consent being issued in isiZulu, Afrikaans and English for care-givers and/or parents to sign. Letters of assent were issued to the children for signing as well. These letters are filed and kept in a locked cupboard. See Appendix C for examples of these.

The research topic and the objective of the research were explained repeatedly to the children, and further letters of consent were signed by parents and care-givers at the beginning of every term, since interventions only happened during school terms and I wanted to ensure that there was on-going understanding of the process. This prevented the perception that the interventions were simply arts/drama lessons for the children and also informed care-givers and parents of any changes to the programme and any events that they may be interested in attending.

According to Marce (2007), other ethical issues, specific to action research, needing to be attended to, included the following: "… the effect on the participants when the researcher withdraws from the situation on completion of the research should be considered" (p.75). Considering that I have witnessed some unethical actions by researchers moving into a research site, conducting an intervention, and then leaving, I have taken the above statement very seriously. There is always the possibility of leaving the participants in a worse situation than they were in before the intervention, or participants can be left feeling abandoned, vulnerable or confused. Besides knowing that the success of a project such as this was not likely to have a sustainable life beyond the study, which is one reason why I intend to continue working with the children in the village beyond the life of this study, I also needed to ensure that the participants were protected from the abandonment that I have witnessed when researchers leave a research site. In this I am fortunate since I reside in the research site, and have the support of the community to continue the work I have started in this field.

Given that the project aimed to create a sense of custodianship of the natural environment on the part of the children, it was disappointing to me to be unable to take the children in or near

water. Since the village depends almost entirely on the benefits of the wetland and the river that feeds it, focus on the importance of clean water is paramount. Unfortunately, scientist members of the WNHA committee and the Wits University Ethics Committee both forbade taking children near the water. Though disappointing, this was understandable since there was a distinct possibility of contracting illness from water which had been found to be high in pathogens in some places, and garbage in the form of rusty tins and broken glass in the water also presented a safety hazard. There was also no way of establishing that the children could swim.

Many years ago, I met a couple who had set up an outreach project for teenagers in the small coastal village of Morgan Bay. The objective of this was to expose youngsters to the natural environment, thereby instilling a sense of wonder, which would hopefully result in a level of custodianship on their part. When I asked the couple if they ever spoke to the youngsters about global warming and environmental degradation, they told me that they specifically did not. This, they said, was a conscious decision that they had made at the outset, since they believed that children could potentially become overwhelmed by a sense of despair and hopelessness in the face of looming planetary demise. They believed that exposing young people to the natural environment, and allowing nature to provide its own lessons, would be enough to create the awareness necessary to drive good environmental behaviour. I had remembered this for the twenty years between then and this doctoral study, and protecting the research participants from eco-anxiety, a psychological condition which twenty years ago had not been named, became paramount as an ethical consideration in the planning of the study. It was for this reason that a number of interventions that I conducted were specifically planned to expose the children to the wonders of the natural environment without 'hammering away' at them with constant information on environmental destruction.

Unfortunately, I did not consider myself in this process and eco-anxiety became overwhelming in my personal life, further exacerbated by COVID-19. The effects of eco-anxiety are discussed in the chapters covering the three cycles of action research and also mentioned in the concluding chapter where recommendations are presented.

Keeping ethical considerations in the forefront of the research endeavour was one of the most important aspects of the study. It is human disrespect for the planet and for its resources that has brought environmental destruction and the dire situation that we find ourselves in. An end to this disrespectful and unethical view of how planetary resources are used is what deep

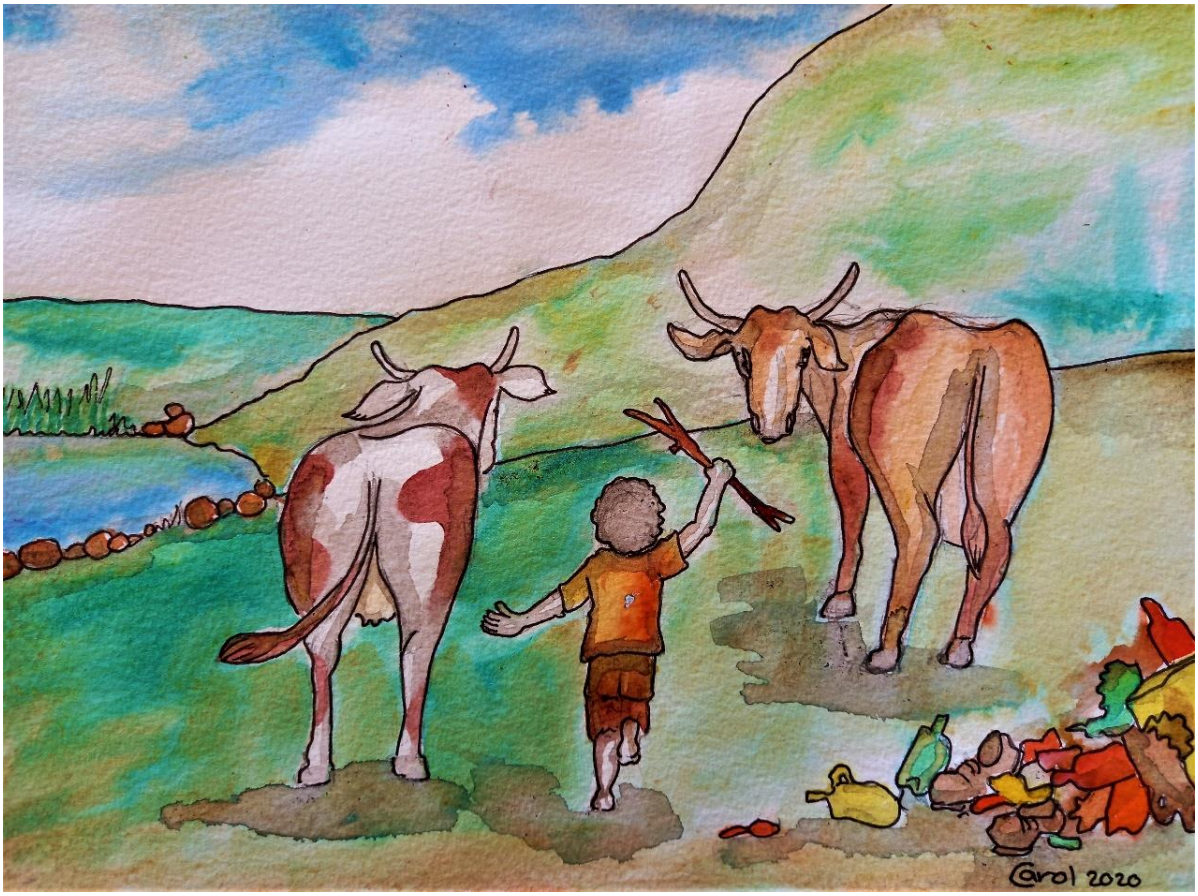
ecologists and eco-feminists are calling for, and was the reason that I embarked on this research endeavour in the first place. A deep respect for all life, including all the participants, children and adults alike, as embedded in the theoretical positions that framed the study, was paramount in all interventions and was assisted by the careful reflexivity discussed in section 3.6.7.

3.10 Conclusion

The action research design used in this study is not new to the social sciences. However, I would argue that some of the research tools, such as the extensive and reflexive use of a journal and of mind mapping, were used in a more elaborate way than is commonly advised in research handbooks or reported in empirical studies. Further to this, the 'inside I' was developed from the literature on the role of a critical friend in action research in order to gain insight during the interventions. Taking this approach allowed for a critical and in-depth view of the research site and of the data gathered from fieldwork, and enabled triangulation across the various data sources.

The next chapter describes and discusses the reconnaissance phase of the study, the spring board from which an action research study usually begins.

Chapter Four: The reconnaissance phase



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4.1 Mapping the chapter

As Swanepoel and de Beer (2006) argue "[w]e cannot even begin to think of the mobilization of communities without the use of information. It is the oxygen of any mobilization effort" (p.114). The reconnaissance phase of the research enabled me to obtain an understanding of the field I was about to enter, and this included finding out what environmental awareness existed in the communities and where this awareness stemmed from, what environmental projects had been instituted, why they were instituted and whether they had been successful or not, and how local government functions with regard to environmental practices. For this study the following were investigated during the reconnaissance phase:

- South African legislation and the environment
- South African school curricula and the environment
- Non-government organisations (NGOs) working in environmental education

- NGOs and commercial enterprises involved in recycling
- Local government and the local environment
- Environmental awareness of adults
- Environmental awareness of children
- Previous and current projects with an environmental awareness focus
- Litter sites, with specific focus on areas that children frequent, in order to monitor change over time.

4.2 South African legislation and the environment

In order to plan for this study it was necessary to establish what legislation is in place in South Africa, on national, provincial and local levels, since this would provide an understanding of the support for environmental practice that exists in the constitution and legislation. It was also necessary to understanding what exposure children have to environmental issues through formal education, and finally what NGO contributions to environmental awareness have been made in the Wakkerstroom-eSizameleni area.

Literature required for this study is in the fields of (i) South African legislation, specifically with reference to litter; (ii) school curricular content on the environment and waste; (iii) reports of the work of non-government organizations that support waste recycling.

4.2.1 Legislation pertaining to waste in South Africa

Governmental bills and regulations related to the environment are vital to understanding what has been legislated, as well as to enable understanding of what measures are in place (if any) to act against transgressors. Relevant documents include the *Programme for Implementation of the National Waste Strategy: starter document for Waste Recycling and the White Paper on Integrated Pollution and Waste Management* (2000) which give specific detail of the government's policy on pollution. What is important to note is that legislation on dumping and littering has not resulted in solutions to this problem. The persistence of littering supports the claim that there is a gap between awareness and action which has not yet been closed. If, on a national level, legislation is enacted but there is no follow through with action at local level, then such planning and legislation are in vain.

The White Paper states that "[t]he level of recycling is influenced by socio-economic and demographic factors. Monetary incentives are of prime importance in the lower socio-economic income groups and the environmental concerns drive recycling behaviour in the

middle to upper income groups*"* (White Paper, p.3). Although I have found this to be a generalization to which there are exceptions, in South Africa there is a distinct connection between poverty and litter. In *Empirical Regularities in the Poverty-Environment Relationship of African Rural Households* Cavendish states that "[a]nalysis of rural households and environmental resources is beset by inadequate data, especially in Africa" (1991, p.1), and even though this is an old publication it seems there is still very limited data available. One example related to litter is Lesibamelepa's Master of Science study entitled *Visitor Perception and Awareness of Litter at the Johannesburg Zoo,* which was conducted in 2014, which aimed to …" determine how litter affects the image of the environment and the animals at the Johannesburg Zoo … as perceived by various stakeholders" (p.iii). Interestingly the study also included an assessment of environmental awareness programmes implemented at the zoo (p.iii).

Most strategies in place deal with waste after it has entered the environment, which in my view is too late. The *Programme for the implementation of the national waste management strategy* (2000), states that "[t]he key to sustaining recycling is finding the balance between securing the supply of recyclable materials and promoting the demand for products that are made from these materials, …" (p.ii). This seems to ignore the problems of polluting behaviour, and turns the issue into an economically viable prospect, with environmental concerns becoming secondary, and even tertiary, to solving the dilemma of waste in the environment, although the *White Paper on Integrated Pollution and Waste Management (RSA 2000)* represents a paradigm shift in South Africa's approach to waste management, as the focus has shifted to pollution prevention (p.3).

Day and Monroe argue that policy makers often "focus on only the natural, political, and economic systems and leave out the primary actors – the people" (2000, p.850). One of the pivotal findings in a study undertaken by the Institute of Social Research, University of Michigan, on environmental awareness in South Africa, (Anderson et al; 2010), is that those people who are most directly affected by pollution of any sort are most likely to view it as a problem. For example, if their water supply is polluted people will take cognisance of such pollution, as opposed to others who have clean water.

Another of Anderson et al's findings is that "[h]aving access to land for agriculture tends to make a household more sensitive to the negative effects of land degradation" (p.13). With reference to perceptions of littering, this was "[a]lso seen as a community problem by a higher

percentage of both African and non-African households than any of the other three environmental conditions, [water, land, air]" (p.15). These findings contrast with what I have observed while working on the range of community projects in Wakkerstroom-eSizameleni that were described in Chapter One. In eSizameleni I found that there was little awareness of programmes such as Working On Water, but comparatively more awareness of organizations such as Collect-A-Can (Anderson et al; 2010, p.20). The Michigan University study mentioned above does not specify what percentage of the respondents were rural as compared to urban, neither does it refer to a community problem caused by the community, a problem in the community or a problem that the community needs to solve.

In preparation for this study I observed that while most of the littering and dumping was found around homes in lower socio-economic areas, community members with higher socio-economic status also displayed poor environmental behaviour: waste was dumped into trenches and other less visible places and recyclables were dropped at a depot only if it was absolutely convenient to do so. While this is a generalization, for the most part, poor environmental behaviour was evident throughout Wakkerstroom-eSizameleni.

The Waste Management By-Law of 2013, published in the Provincial Gazette no.216, which is still in effect states:

> The main objects of these By-laws are to ensure that waste is avoided, or where it cannot altogether be avoided, minimized, re-used, recycled, recovered and disposed of in an environmentally sound manner; promote sustainable development and environmental justice through fair and reasonable measures for the management of waste within the Council's jurisdiction… (Waste Management By-law, 2013).

The by-law places responsibility for dealing with waste firmly in the hands of local council, also holding residents and businesses accountable. It is important to note here that there is only a small reference to avoiding waste. The crux of the problem is that if waste was avoided there would be no need to have legislation, awareness campaigns, and formal or informal education programmes in place to deal with it. The statement above regarding avoidance is cursory at best.

Although there is legislation in place in South Africa that aims to address issues of waste, little attention appears to have been paid to changing poor environmental attitudes and behaviour which create the problem in the first place. The focus seems to be more on dealing with waste once it has entered the natural and built-up environments, and what economic gains waste may generate.

4.2.2 School curricula

South African school curricula include content on the environment, environmental awareness and environmental concerns in subjects such as Life Skills / Life Orientation, Social Sciences, Geography, Natural Sciences and Life Sciences. Lekgeu and Davis (2017), in a study on *Perceptions of Climate Change Among Grade 11 Learners in the Tshwane Metropolitan Municipality* state:

> The school curriculum in South Africa is standardized for the country as a whole, irrespective of whether residences are in urban or rural areas. …. Further, education in the country is unified around one curriculum policy called the Curriculum and Assessment Policy Statement (CAPS). According to CAPS, by the end of Grade 5, learners are expected to know and explain: the difference between weather and climate; the different climates in South Africa; the climate of their own area; as well as factors that influence both these, namely temperature, wind, air pressure and precipitation (SA, 2012). This is taught in Geography, Social Sciences, but also in Natural Sciences and Life Sciences subjects (p.56).

More directly relevant to this study is a component of the Life Skills curriculum (Grades R-6) and of the Life Orientation curriculum (Grades 7-12). In each year of schooling from the first (Grade R) to the last (Grade 12) there is a component in these curricula which focuses on personal responsibility for a healthy environment. This begins in Grade R with the following topics: the importance of a clean environment; ways in which people pollute the environment; the importance of recycling. In Grade 11 learners are required to participate in a community service addressing an environmental issue (Department of Basic Education, 2011).

Topics stated in a curriculum document are not necessarily topics taught in the classroom. However, conversations with both teachers and learners indicated that they could 'talk the talk' on a range of environmental topics even though there was very little evidence that they were 'walking the walk'. Day and Monroe (2000), make the following pertinent observations:

> [b]ehaviours, of course, must be supported by knowledge and attitudes. But research in the field of environmental education and in commercial markets have shown that there is no cause-and-effect progression from knowledge to attitude to behaviour as educators have long believed. In fact, the relationship among these three is puzzling (p.3).

These puzzling research findings on the lack of cause-and-effect progression from knowledge to attitude to behaviour suggest the need to investigate other ways of influencing behaviour change. In a discussion of challenges faced by South African schools Archer and Newfield refer to the work of Ramphele (2012) who argues that in South Africa educational achievement is disabled by the context in which it finds itself – one of poverty, unemployment, high levels of crime, poor governance, a patronage-driven system, corruption and inadequate health care" (2014, p.3). In the research site there is evidence of each of these negative contextual features

and this raises the possibility that each of them counteracts the positive messages on caring for the environment that are part of school curricula in every grade.

4.2.3 Non-governmental organizations in the environmental education sector

Some non-governmental organizations (NGOs) have an explicit focus on environmental awareness and action programmes for children and adolescents. One example is One More Generation (OMG) South Africa. This NGO originally focused on saving rhinoceros from poaching but now addresses a wide range of conservation and environmental challenges that this country faces. Littering and recycling are topics included in the programmes OMG presents to schools. OMG SA seeks:

> to create in the youth a heightened environmental and conservation awareness, responsibility and behaviour pattern for the benefit of themselves and future generations. Our wish is for every child to be afforded the opportunity to incorporate this knowledge into their personal identity and lifestyle and develop pride in knowing that they are contributors and potential change makers. (One More Generation » Youth Empowerment accessed May 2016).

The Eco School programme is an international programme with similar aims. The programmes that are run through this organization include a "Litter Less Campaign", which is in line with the endeavours of this study. Although this is an international organization that is not specifically focused on African countries, its mission statement is relevant to my study: to ensure that "young people have the power to be the change for sustainability that our world needs by engaging them in fun, action-oriented and socially responsible learning*"* (2014, About the Campaign — Eco Schools, (accessed 14th March 2019).

Various organizations, such as BirdLife SA have published resource books for teachers to use in the classroom, or for use by individuals and organisations involved in informal education. One of these is titled *Learning for sustainable living: An integrated learning resource for environmental education*. BirdLife also engages in extensive outreach programmes, focusing on birds, aimed at primary school children. Another useful publication is *Engaging Young People in Conservation and Education; A Toolkit for Site Support Groups* (2014). Although this was published in Kenya it is relevant for all young people in Southern Africa and provides facilitators with tools to enable children to learn about their specific environments within those environments. The WWF (World Wildlife Fund), produces an informative publication entitled Down2Earth which includes ideas on how to save the planet by being water wise, consuming wisely and wearing environmentally friendly clothing. In addition there are one-off publications such as *Feeling and Learning Nature with Children; the Guidebook for Volunteers and Trainers* (2003), which resulted from an international environmental training course held

at the Middle East Technical University in Turkey. This gives concise guidance on how to engage children in learning about their environments, with information on geographical and physical ecology as well.

The Wildlife and Environment Society of South Africa also produces material for teaching and raising awareness in young people, such as The *Greenhouse Effect; A Teachers' Activity Guide*. Although this was published in 1999 it is still relevant today and presents detailed activities for children to learn about their environments during play. Privately published manuals are also available, such as the very insightful publication *Emthonjeni: Come to the Wellspring. Rewilding: the call of the 21st century* by Marilyn Aitken (2016). This gives information on a broad spectrum of environmental topics as well as providing guidance for facilitators about group work with participants, including play acting, with specific outcomes in mind. The South African National Biodiversity Institute (SANBI) provides numerous publications on environmental awareness. For example, *Bridging the Gap, A handbook for environmental educators and interpreters: Ideas and activities for making meaning of our environment.* Here compiler John Roff notes that [p]eople retain "90% of what they do, 50% of what they see, 30% of what they read, 10% of what they hear" (p.12). This observation is relevant to this project because it was anticipated that children participating in applied drama and arts would be more likely to retain information than children simply being taught the same information at school.

4.2.4 NGOs and commercial enterprises involved in recycling ventures

NGOs, together with some commercial enterprises in South Africa provide a valuable service to the country in recycling waste; they create jobs and they facilitate the movement of waste away from the environment. Before looking at some of these NGOs it is important to understand exactly what the concept of recycling entails. The following excerpt from https://brainly.in/question/11149381 (accessed on 12th November 2020), provides a definition of recycling and the ways that it is accomplished.

> Recycling is the process of converting waste materials into new materials and objects. It is an alternative to "conventional" waste disposal that can save material and help lower greenhouse gas emissions.
>
> Recycling is a key component of modern waste reduction and is the third component of the "Reduce, Reuse, and Recycle" waste hierarchy.

Recyclable materials include many kinds of glass, paper, cardboard, metal, plastic, tires, textiles, batteries, and electronics. The composting or other reuse of biodegradable waste—such as food or garden waste—is also a form of recycling. Materials to be recycled are either delivered to a household recycling centre or picked up from curbside bins, then sorted, cleaned, and reprocessed into new materials destined for manufacturing new products.

In the strictest sense, recycling of a material would produce a fresh supply of the same material—for example, used office paper would be converted into new office paper or used polystyrene foam into new polystyrene.

South African NGOs and commercial enterprises generally each focus on one specific recyclable, in other words, one will focus on glass while another will focus on plastic. As stated by the *Programme for the implementation of the national waste strategy of 2000*, "[r]ecycling activities are mainly undertaken by private recycling companies, especially those associated with the packaging industry" (p.i). What follows is a brief breakdown of four of these recyclables and the NGOs that deal with them.

4.2.4.1 Plastic

Plastic is conceivably the worst of the waste that ends up in the natural environment. Plastic that is not recycled or reused ends up in landfills, streets, rivers and the sea where it takes hundreds of years to break down. Unlike other recyclables, such as glass which is recycled as bulk altogether, plastic has to be sorted into its different categories according to its make-up. Unfortunately the recycling of plastic is the most labour intensive of all recycling enterprises but also the most important aspect of waste that needs to be dealt with.

The *Programme for the implementation of the national waste management strategy (2000)* states the following:

> There are approximately 100 companies recycling plastics in South Africa. Under the auspices of the Plastics Federation, the Plastics Enviromark was launched in January, 1997. This initiative aims to: join the companies within the plastics industry in an environmental responsibility initiative; provide a tangible expression of the plastics industry's commitment to environmental responsibility; highlight, and as far as possible, address the problem of plastic littering; educate relevant target audiences on recycling and reuse; spread a positive message about plastics through the media, at exhibitions and through dissemination of educational material (p.16).

Considering the high expectations of this initiative it was disappointing to find very little evidence of the achievement of any of these aims at the research site especially considering that education and awareness programmes are a focus for this organization.

Barbara Creesy, the current South African Minister of Forestry, Fisheries and the Environment has put out a call to comment on her intention to adjust the policy on waste management with regard to plastic shopping bags. Her aim is as follows:

> The plastic carrier bags and plastic flat bags must be made from a minimum of 50% post - consumer recyclate from 01 January 2023 and must, from 1 January 2027, be made from 100% post-consumer recyclate (https://www.gov.za/documents/constitution-republic-south-africa; accessed 12/11/2020).

The document continues with a proposed plan of implementation that includes a more extensive timeframe than appears above. This is a clear indication that there is intention in government agencies to halt environmental degradation, and in this case, over a relatively short period of time.

4.2.4.2 Paper

Paper and cardboard are conceivably the easiest of all recyclables to manage. There are a number of companies in South Africa that produce paper, and some of these companies are involved with recycling in this sector. Again, referring to the *Programme for the implementation of the national waste management strategy*:

> Paper and fibre recycling is well developed in South Africa, with four large paper companies (Sappi, Mondi, Nampak and Swazi Paper) utilizing waste paper products." "Almost every type of paper in South Africa has a recycled content. For example, newspaper contains 25% recycled paper, cardboard boxes 50% and cartons 100%: (p.13) ... The initiative also disseminates information about effective recycling and educates people about the benefits of recycling through the use of plays, puppet show, videos, and slide presentations. It is estimated that paper recycling has created about 10000 jobs, the majority of which are small entrepreneurs (p.14).

Examples of companies are Mondi and Sappi Waste Paper, and the programme mentions a campaign with the slogan "War on Waste". Considering the extent to which these recycling initiatives aim at educating, one can question why there has been little visible result. It is interesting to note that here there is reference to the use of the arts in the dissemination of knowledge.

4.2.4.3 Glass

Glass is recycled by cleaning, crushing and using it to manufacture other commodities and, unfortunately, very little of it is reused in its original form as was the previous practice. The *Programme for the implementation of the national waste management strategy*, states that "[t]he Glass Recycling Association was formed in 1986 by Consol Glass and Metal Box Glass with the objective of developing an industry approach to the recovery of glass containers from a wide spectrum of the domestic and industrial sectors" (p.14), and that "[g]lass can be reused

in the manufacture of abrasives, road-marking paint and as an aggregate in road making" (p.14).

Glass recycling companies pay those who collect glass, and considering this one wonders why there are not more people working in this field. Indeed, during the course of the fieldwork for this study, a glass recycling depot was erected for a woman who supports her family in this way. One also wonders why there still remains so much glass that is dumped when it is clearly a valuable resource.

4.2.4.4 Tins

In *Collect-a-Can offers lifeline to unemployed South Africans,* Velaphi (2013), states that "[f]or thousands of unemployed South Africans, Collect-a-Can's Cash for Cans initiative is a life-saving means of earning an income" (https://www.bizcommunity.com/Article/196/361/95566.html; accessed 12/11/2020).

Collect-a-Can also pay for other metals such as aerosol bottles, paint drums etc. and again, one wonders why there are not more people collecting waste metals and thus making an income in this way. This company also has a schools programme which is twofold: schools compete against each other for prizes awarded for the highest weight of collected cans, and money is paid for cans to generate income for projects that each school chooses to work on. According to Velaphi, "[t]he can recovery and recycling organisation has been working closely with schools for 22 years to teach them the importance of recycling and that waste has value" (Velaphi, 2013). The success of this organization is neatly summed up in the *Programme for implementation of the national waste management strategy* thus: "The greater public awareness of Collect-A-Can appears to be a function of its use of financial incentives and its extensive network of collection points" (p.22). None of this, though, addresses the importance of not generating waste in the first place.

4.2.5 Informal waste collectors

Informal waste collectors are part of the recycling sector and make a valuable contribution to the removal of waste from the environment and to recycling. Self-employed, they scavenge through dustbins set out on pavements for garbage collection and on landfill sites for items that they can either recondition and sell, or sell to recycling companies.

Although this work is regarded as a last resort in a climate of unemployment, competition for these resources does occur, and when other entities, such as municipal authorities, see that there

is substantial money to be made, then competition is escalated. As Theron has stated in a booklet (no date), published by WEIGO (Women in Informal Employment Globalizing and Organizing), there is little security in this sector, and waste pickers depend on "local authority as well as other divisions of government who can facilitate their work … or restrict them. Waste pickers are also dependent on being able to sell what they collect to middlemen and others, who pay them according to the volume of material delivered" (p.8). This shows that at all levels of waste management there are challenges that include political ones, and these were apparent in the research site of this study.

4.3 Local government and the local environment

As has been outlined, in South Africa there is strong legislation regarding custodianship of the environment, but little practical follow-through is evident in many parts of the country. What follows is a journal entry reflecting on implementation failures:

> *I'm astounded at how much legislation there is on waste; white papers, acts, amendments to acts etc. there are also some very interesting reasons given for the failure of programmes … one of the problems is that there are overlaps between national, provincial and local government. So it seems that there's confusion as to where the authority lies.* (journal, 6th May 2015)

In this journal entry I am referring to national legislation which is meant to filter down to local level. Planning for the intervention stage could not begin without a thorough knowledge of what environmental policies are in place at a local level, and what exposure to environmental issues children have via libraries and council-initiated or council-supported initiatives.

4.3.1 Local governance

The village of Wakkerstroom-eSizameleni is administered by the municipality based in the town of Volksrust which prioritizes Volksrust and Vukuzakhe (the township attached to Volksrust) in terms of budgeting. Tourism related policies are administered from the provincial city of Mbombela, which creates major challenges because tourism is a major source of income and employment. The distance between Wakkerstroom and Mbombela (a distance of 400km),

also affects efforts to halt potentially destructive proposed mining initiatives which are ongoing, since such distance makes meeting with relevant personnel difficult, and the issues are out of the sight of key tourism administrators.

For the reconnaissance phase of this study, municipal employees and residents in Wakkerstroom and eSizameleni were either formally interviewed or engaged with through informal conversations. Visits to the municipal offices and to the public library attached to these offices, also yielded information. What emerged was a general state of apathy and/or superstition among most of the employees, community buildings in a disgraceful state and a bankrupt municipality. After an informal conversation with a young builder who lives in the area, I noted the following in my research journal:

> *The council holds meetings during the day when they know that people are at work. It is therefore the elderly that attend the meetings, who do not have the education to absorb information and make proper informed decisions, so they are bamboozled and lied to by the councillors. Decisions the councillors make are based on personal greed and pay-offs.* (journal, 10th February 2018*)*

The municipal offices are seriously understaffed and under-resourced. There is one cleaner who cleans the offices, the toilets and hall in Wakkerstroom and who is sometimes called up to the eSizameleni Hall if there is a function there. The Community Works Project (CWP), which is a job creation initiative, can be called upon to assist at times, but its workers do not report directly to council. There are few cleaning materials, (consumables and tools) to clean with. No toilet paper or tea etc. is provided for either staff or visitors at the municipal offices. The Town Hall is run down and receives basic maintenance when large functions are booked for the venue. The eSizameleni Hall is barely usable, with running sewerage pouring from the toilets, broken windows and perimeter walls, and litter strewn over the surrounding gardens from the two taverns across the road.

I wrote the following journal entry after an informal conversation with a council employee:

> *The councillor's position is deeply steeped in superstition and ANC* [political party] *politics. He won't even use his cell phone in the offices because he suspects that there is a spell that has been cast on the area. There is a wide rift here in the ANC and those who don't support him*

are, according to him, waiting for him to make a mistake. A previous councillor had his house burnt down, so there is some cause for concern by the current councillor. (journal, 13th February 2018)

Other challenges faced by the council are a rapidly growing population that has to rely on limited resources, and an infrastructure that cannot support the present demands made on it. Various administrative bodies seem to exist independently of each other and to work in contradictory rather than complementary ways. After a committee meeting of the WNHA the following journal entry was made:

Organizations function in silos for the most part here. For example, the Working On Water team put gabions on the waterway where erosion was taking place, but then planted kikuyu on them. Kikuyu is horribly invasive and the Bird Club, BirdLife SA and the WNHA are all trying to eradicate it. Then also the issue of sewage. For example, [a friend's] *tank is overflowing. This is because the honey sucker* [a truck that sucks sewage out of underground tanks attached to some private homes and restaurants] *can't get to her house because the road is in such a bad state, and roads fall under a different department, so sewage is going into the vlei from the village and not only from the informal settlement.* (journal, 3rd April 2016)

The aim of this description of the state of local governance is to provide an insight into the challenges that all residents face in the area. It also provides a background to the research project, which is important for understanding much of what has contributed to the state of the environment here.

4.3.2 The public library

There is one public library attached to the municipal buildings in Wakkerstroom, in which there are many books in the children's section that cover environmental issues. Most of these, however, are in Afrikaans, and, from the dates of issue over the years, it is clear that these books have not been read regularly, some not at all. The children from the local high school frequent the library since they have free access to its four computers. Five consecutive afternoons were spent in the library in order to see what the children were looking for, what assistance they received and whether they found the library useful or not. Most of them were looking for information on the computers but, without exception, the staff did not assist them. This included those children who were looking for books. Many of the children said that they

now prefer to go to Wakkerstroom Central, which is the local internet café, because they get more assistance there.

4.3.3 Service delivery and residents' responses to what is provided

Each home in eSizameleni has been issued with a dustbin, and garbage is removed once a week. Many of the homes use their dustbins for ash from cooking fires, however, and other means of placing waste out for collection are used, for example used paint drums. The challenge with these is that for the most part they do not have lids, and therefore goats and dogs turn them over and spill the contents onto pavements.

Despite there being regular waste removal by the council, eSizameleni residents still continue to dump waste into areas that have become informal dump sites, of which approximately eight have been identified. Some of the locations seemed specifically chosen based on the proximity to water. Children often play in these waterways, and animals use them for water and for foraging for food.

Dumping of diapers is a particular issue. One informant whom I questioned while she was in the act of dumping bags of diapers into a waterway, told me that she cannot put the diapers into the bin as the dogs knock the bins over and then there are diapers all over the road and in her garden, and dogs then tear them apart. This, she said, is unhealthy for the children. When I asked her whether she thought that these diapers dumped in waterways were possibly unhealthy for the whole community, she shrugged. Swanepoel and de Beer (2006) quote Gautier (1994: 49) who states that "[d]irty water is responsible for four-fifths of all sickness and one out of every three deaths in the world today". While this is a somewhat dated statistic, polluted water supplies are still a major health issue. It would seem that if a negative impact of polluting water with diapers does not have a direct effect on residents in eSizameleni, then they do not care what further impact there could be.

Informal dumps are cleared periodically by either a council owned front-end loader or CWP employees. Whether the dumps are cleared mechanically or by hand, the resultant piles are then burnt.

Older homes in eSizameleni have outside taps, and toilets outside and a tap in the kitchen. Many of the toilets outside are unused or used for storage. Conversations with residents have revealed that some of the homes have had toilets installed inside, but other people prefer to use the veldt to relieve themselves. New RDP homes all have toilets inside. Despite the difficulties

with communication with the council, burst or leaking pipes are repaired as a priority when reported.

4.3.4 Schools

While I agree that formal education can be a means of learning about environmental good practice, as suggested by Hart (1999), I cannot agree with him that most children attend school regularly. In Wakkerstroom-eSizameleni with child-headed households and absent parents there is a distinct possibility that children will not attend school regularly, or in some cases at all. For example, there is a child who refuses to attend school, preferring rather to wash cars in the main road where restaurants are situated. He lives with his adult sister and alcoholic father who take no interest in his well-being.

There is a relatively well-run primary school in eSizameleni, but the high school, which is situated in Wakkerstroom, is notoriously badly managed, and drugs, sex and violent gangs have been identified by education authorities to be major problems in this school. On a visit to the school, it was discovered that there is one dustbin in the grounds and no waste paper baskets in the classrooms. The municipal waste removal truck does not service the school for reasons unknown, and there is no money for repairs to toilets.

There are no libraries or computer rooms at either of the schools. Children from better-off families in both Wakkerstroom and eSizameleni, are sent to schools in Volksrust, where there are two primary schools, three high schools and two private primary schools. The long journey presents challenges for parents as it means transport costs and engagement with zoning issues. The zoning issues are a particular problem because local municipal officials use threats to remove the children from these schools in order to have parents comply with proposed projects that are not in the interests of community members. This has caused some minor skirmishes, with children protesting.

4.4 Environmental awareness in the community

Before formal planning of the research project could begin, attitudes, knowledge and behavioural practices in the local population with regard to litter needed to be identified in order to understand what existed and could be built on. While children are the focus of the study, adults play a vital role in children's socialization and so environmental knowledge, attitudes and behaviours of adults were also investigated.

4.4.1 Environmental awareness and behaviours of adults

There were a number of ways in which I was able to examine the environmental awareness and attitudes of adults. I was easily able to introduce myself to people as the WNHA litter representative, and with the visibility that my work with WAG had given me, I was able to engage with people in a non-confrontational manner. Formal interviews were conducted with teachers at private and government schools, with members of voluntary organizations, and with council workers. With the permission of the interviewees, all interviews were recorded and transcribed and the information from informal conversations was noted and reflected on in my research journal entries.

Over a period of six months I began to engage as many adults as I could in conversations on littering and waste in as many social settings as possible. The adults I chatted with ranged from twenty-three to sixty in age and were from a range of socio-economic and linguistic backgrounds. The following are excerpts from a number of journal entry entries where I either wrote verbatim accounts or reflected on conversations afterwards:

[28-year-old male; Mashona speaking Zimbabwean] *I am walking with a coke can and I don't feel like carrying it with me to find a dustbin; I look for a place to throw it. If I see your immaculate garden I won't throw it there. I will rather throw it under a bush where it can't be seen. Or if I see a place where others have thrown their rubbish, that's where I'll throw my can. This is how informal dumping starts. I won't throw my can into an immaculate garden but rather hide it under a bush, because I know that it is wrong.*

[54-year-old man; isiZulu speaker; from Soweto] *... kids litter because they copy their elders. Elders have a don't care attitude. The government does not live in the house: the person lives in the house, so it's nonsense that people will not make adjustments to their homes. I cannot understand why people are happy to live with their yards full of rubbish and nappies. Teach one who teaches five – it is a very long process.*

[40-year-old Sesotho speaker; from Johannesburg] *... it's a class thing. My mother would have slapped me up-ways if I had done anything like that* [littered]. *M throws things out of car windows, even though he comes from an OK background, and he speaks nine South African languages.*

[24-year-old woman isiZulu speaker; from Durban] *...black people don't care about the environment. It's a very selfish community. If rape doesn't affect me or my family directly then*

I don't care about it. If dirty nappies are in the garden it doesn't affect me directly, I don't care about it. Clean gardens are more of a social indication of social standing – I don't want to be the only person in the street with a dirty yard. Keeping the house clean is because it is owned. But cleaning the yard is not about having a clean yard per se. I only became aware of litter issues when I went to better schools. My family, including me, remove litter from around our yard because robbers use it to mark homes for burglaries later, but instead of binning the litter we throw it across the road onto the neighbours' pavement. I am now more aware of litter because I now understand the connection between the planet and our lives, and that humans are destroying our planet.

[28-year-old male English speaker; from Johannesburg] *I also litter. I throw cigarette butts out of the car window. But nappies in the garden? No way!*
(journal entry, 26th June 2017, conversations with theatre technicians)

I was most surprised at the lack of understanding of environmental degradation and the impact waste is having on the planet as a whole, specifically on the part of Wakkerstroom residents. People who have vehicles, and who therefore have the means to bring garden waste and rubble to the landfill, prefer to dump in ditches or the veld, ensuring that it cannot be seen. At times the waste is dumped within sight of the town dump, which is all the more astonishing. I questioned why it could be that if a person has the wherewithal to transport waste and dump it, s/he would dump it in the veld or a ditch and not at the landfill. In addition, I questioned why it is that the residents, becoming aware that I headed up the WNHA anti-litter project, would then come and drop waste (mostly recyclables, but often non-recyclables) at my home, when they had the wherewithal to take recyclables to the depot themselves or put waste out for municipal collection.

Such questions are difficult to answer. One woman in eSizameleni told me that 'the council must pay us to clean this up.' She gestured to an informal dump opposite her home. It was only later that it occurred to me that I should have asked her why she needed to be paid to clean it up, and why it was there in the first place. Some have told me that they litter because it provides work, with specific reference to the CWP workers, saying that without the work they do cleaning up they would not have jobs.

During this phase of the research there were as many opinions on the reasons that people litter in Wakkerstroom-eSizameleni as there were people available to talk about this issue. One of the biggest challenges that I faced in planning the research design can be succinctly summed

up by what S said: "[i]t's very difficult for people not to defer to elders because of a culturally entrenched system of respect. Yet the elders are often ignorant" (journal, 6th May 2016).

'Not in my backyard' was a recurring theme that continually emerged as the reconnaissance progressed and it is a complex one. What follows is a journal entry regarding this:

> *I have instructed E to place garden waste over the fence, but really only the waste that the ponies that graze there, can eat. He then dumped everything there, including litter. When questioned as to why he had done this it transpired that he thought that the field did not belong to me and therefore it was acceptable to throw junk into it. This can also lend insight into what are considered boundaries, both social and physical.*
>
> *It tells me possibly that 'not in my backyard' is being played out here, but this is a gardener on behalf of an employer. I would really love to know what he'd do if I told him that the field belongs to me. Would he move the junk further away and dump it in the street below the field? = parameters/physical boundaries.* (journal, 22nd September 2017)

The teachers who are currently working in the sector were able to build on what I already knew about school curricula. For example, there is an extensive research project that the grade twelve learners are given to do on environmentalism. This was particularly interesting to me since it addressed much that I intended to focus on in the course of this study, although my intervention was with primary school learners. The project entails interviewing anyone who is doing work on environmental issues in the village, including council members who are in charge of projects, a thorough literature review and a report, and it is apparently a task given to all grade twelves every year.

With reference to project leadership, the teachers stated that in rare instances where projects run within schools, whether initiated within the school or by an outside entity, such as the Green School programme, there still needs to be a passionate teacher who will drive the project, otherwise it will fail. This was very important information for planning the research project, and identifying champions of the environment became a focus of this study.

Some adults told me about programmes in various parts of the country that place value on litter. One journal entry records such information:

> *R spoke to me about this system in Utrecht, where the children collect litter, take it to a central point and are given plastic tokens called 'moolas'. These can be used to buy school supplies and basic food stuffs at a shop where these are donated.*

W says that it's because poor people don't see value in litter, and the moola system does place value on litter. (journal, 8th April 2016)

There are a number of programmes such as this, which led me to consider the notion of reciprocity. In my view as long as the reciprocal nature of a project entails payment of some sort in exchange for picking up litter, a clean environment will only be sustained as long as there is such an exchange. If a clean environment, with pride taken in it, is the only reward for picking up litter, then and only then, can the programme be sustainable. This means that a sense of pride in a litter-free environment needed to be instilled in the children. The research project was planned so that there would never be reciprocity in the form of cash or goods in exchange for picking up litter. This was a challenge that I gave myself because it became clear that it is difficult to expect a person to take care of his/her environment simply because it is the right thing to do, when he/she is trying to eke out a meagre existence. Due to the COVID-19 pandemic in 2020, however, I had to adapt my attitude to this somewhat, as is explained in Chapter Seven.

4.4.2 Environmental awareness and behaviours of children

Shortly after I was assigned as litter monitor by the WNHA, I realized that children form a part of the community who needed to be included in programmes aiming to raise environmental awareness and to produce action in support of a clean environment. Initially I worked with four groups of children on an informal basis, and from these I was able to form a core group who became the research participants for the formal study. During this time I worked with the children under the auspices of the WNHA, with the assistance and support of various other individuals and organizations, from the start of 2016.

The first was a short-lived collaboration with Wakkerstroom Central, the local internet cafe, where children were invited to attend craft workshops. The second group was from Happy's (pseudonym) after school programme, the third was from Village Primary School (pseudonym), which is situated in Volksrust, and the fourth was from The Potters' Place (pseudonym) aftercare programme.

Through conversations during these workshops the information that the children provided concurred with what has been discussed previously, in that they had been taught about

environmental degradation, global warming, and the hazards of waste. However, when I tried to establish from them why there was so much litter and dumping in the village, I could elicit no response. This therefore, provided the springboard from which this study was to develop, since there was knowledge and awareness but no follow through with action. The following is an excerpt from a journal entry reflection on a workshop:

> *The object of the workshop today was to collect found objects and litter, and make something fun and aesthetically pleasing (masks). The important objective was to show the children that it is possible to make things out of waste.*
>
> *At first, we went for a walk around the church grounds, picking up litter along the way, saving what we thought we could use and throwing what we couldn't use into the dustbins. Then we constructed our masks out of this. The children were really shy and reticent to talk to me.* (journal, 1st April 2017)

Happy's aftercare programme is co-ordinated on a voluntary basis by a Wakkerstroom resident and provides a safe space for children to come to after school on Friday afternoons. Here they are assisted with homework and reading. My difficulty in working at Happy's was that the women that run the programme are isiZulu speakers and I am English speaking with a rudimentary command of isiZulu. It was also very early on in my investigation and therefore planning for workshops with the children was haphazard and often ended in chaotic experiences with them. The children's ages ranged from as young as four years to as old as sixteen, which also made workshop planning very difficult. The hall is very small and weather did not always permit working outside in the garden, so it was difficult to split the children into groups according to age. The benefit of this work, however, was that it alerted me to the hazards of language barriers earlier rather than later and to experience first-hand the difficulties of large groups made up of diverse ages. I was therefore able to establish where I was better able to source participants from.

Village Primary is a privately run English medium primary school situated in the adjacent town of Volksrust. After an extensive interview with the owners of the school, one of whom also teaches there, I was invited to give a talk on litter and recycling to the children. As part of the planning for the talk I decided to present a short play, which was followed by a discussion. It was then that I wrote the *Litter Lion play*. This is a short skit, performed by one person who plays two characters. The play included lyrics that I wrote and put to the tune of "What shall

we do with the drunken sailor?" It was this play, the song and the discussion that followed that was the inspiration for the Litter Lions club which later was registered as an NPO. The play was subsequently performed to all the groups of children with whom I have interacted and they have all learned the Litter Lion song. (See Appendices D and E for the play and the Litter Lion song). The experience contributed towards shaping the proposal for the formal study and for planning workshops.

On a follow up visit to Village Primary, a very important piece of information came to light, that was to shape my thinking around planning for the next phase of the study. This information was elaborated on in an informal conversation with friends, who are also teachers. The journal entry excerpt below shows the importance of reflexivity for this study:

> *I was astonished at Village Primary the last time I did a little presentation, because I realized that the children do not know what the word 'litter' means. In discussion with friends it became clearer to me. They know what rubbish is and they know that they shouldn't drop rubbish just anywhere. They also know about recycling. But the word 'litter' is both a verb and a noun. So, THIS is a good point of departure.* (journal, 3rd August 2017)

Here it became apparent that I was not only facing the language barriers that are so often hurdles to be overcome by researchers in the humanities, but that assumptions about words which participants in a study are likely to know, or which may be problematic because they can have different meanings when used as verbs or nouns, need to be evaluated.

The Potters' Place Educentre is an aftercare programme similar to Happy's, but the difference is that it is a formal education facility which aims to uplift the children who attend by providing formal assistance with learning. The centre was initiated by Charity Nsibanda, who has a passion for providing opportunities for marginalized children through education. A small team of teachers, cooks and volunteers provide assistance with homework, reading and a hot meal four times a week. Children who are struggling academically are identified and appropriate assistance is provided for them. In this way parents are assured that their children have the individual attention that they are not necessarily receiving at the local government primary school. Any willing volunteer is welcome to provide learning experiences for the children so that they are able to benefit from input on diverse topics.

It was through this encouragement of extra-curricular learning that the manager of BirdLife SA Wakkerstroom, Ms Garland, was allocated one afternoon a week with the children, and as a result of this she formed a Junior Bird Club. I was able to work in conjunction with Ms Garland, and thus began the Litter Lions. We planned our programmes to run concurrently to support the separate endeavours, and plan to continue this collaboration indefinitely. Besides being able to 'piggy back' on the BirdLife SA outreach programme I have been able to make use of resources such as reading material and workbooks.

Much data was gathered from the initial work with the children at The Potters' Place prior to the study. The programme ran somewhat haphazardly in 2016-2017 but was planned more coherently for 2018, in close conjunction with BirdLife SA's programme. It was in this space that I began to use the arts in interventions with the children. In trying to establish the children's level of environmental awareness they were asked specific questions to which they were given the option of answering in the form of drawings, cartoons, poetry or short stories. Although all the children responded with a good level of awareness of the importance of keeping their environment clean, the school grounds where they spend most of their time were still full of rubbish.

Despite having a member of staff in attendance at each class there remained a communication problem that was difficult to overcome. The staff attend the classes in order to ensure that the children understand the information and the instructions that are presented to them, since the class is given in English and the children's home language is isiZulu. Instruction at primary school level is in isiZulu so levels of comprehension in English are limited. However, providing a space for the children to develop reading and comprehension in English is an important aim of The Potters' Place programme. The children did not seem to grasp the difference between recycling and re-use of waste, (which is quite a subtle difference even for speakers of English as a home or primary language) and this conceivably was due to the misunderstanding that the staff themselves had of these concepts. It was difficult to determine if what was being translated was in fact what I hoped was being taught. This was a challenge that the research project continually faced.

During the work with the children at The Potters' Place it became apparent that one of the reasons the children did not take responsibility for their own waste was because the women who run the tuck shop at the break times clean up for the children afterwards, and it seems that

these women run the tuck shop with the permission of the school authorities, with this understanding.

From the various interventions a group of children was identified on the basis of their command of English, and permission was obtained from their parents for them to attend workshops every second Sunday for an hour and a half during school term times. In addition to learners who attend The Potters' Place aftercare programme some participants were recruited from other schools in the area, and from home schooled learners, with the age of group members varying from seven to fourteen. This formally became the Litter Lions club. The programme on Sundays also, as with that at The Potters' Place, dealt with environmental issues with a specific focus on waste, but had been designed to be more fun and 'lighter' than the programme at The Potters' Place. Below are some images from this programme.





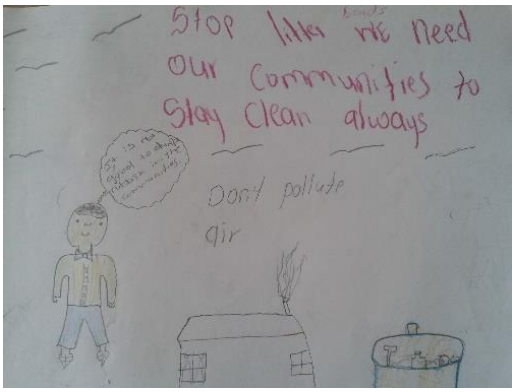

Figure 4.1 Children at work, and some of their drawings

At times, several adults volunteered their time to work with the children, for example a house guest of mine attended a workshop with me. Here the children made drawings of the world with the theme being “Save our planet”. Below is an example of one of the drawings.



Figure 4.2 Save the planet image

Work with the Litter Lion Sunday programme was halted once the PhD research proposal was accepted, but got underway again after ethics clearance was granted. It was felt that, since the parameters between work done under the auspices of the WNHA and the research undertaken as part of the study would be blurred, it was best to halt all workshops in the interim. However, the Sunday workshops subsequently became the focus of the first cycle of action research

4.4.3 Toys from waste

Children in the township use waste to make toys for themselves. The cars and trucks that they make out of wire and rubber became popular amongst tourists quite some time ago and are still being made by children all over the country, and in eSizameleni. Another game that children play here is called ‘amatin’. Tins that have been squashed flat and an old tin or plastic bath tub are used in the game. First a ball made out of plastic waste is thrown at a person. If the ball hits that person then s/he is permitted a turn with the tins. The idea is to pick up as many tins between the feet as possible and drop them into the tub by jumping up and releasing them over the tub. Children compete with each other to see how many tins they can get into the tub in one jump. While at Village Primary I learnt that children also play a game called ‘passport’, where folded crisp packets are used in a game that is similar to marbles. Soccer balls are made out of

bags collected from dumps, wound tightly around each other until a suitable size is achieved, and then tied with string or twine.

However, it is possible that as much as the children are reusing waste to their advantage to make toys they are doing so because they have no alternative. If they were given commercial toys it is doubtful that they would continue to make toys out of waste for themselves. In other words, the reason they use waste to make toys for themselves is likely to be lack of finance rather than because they wish to recycle or reuse waste in order to create a cleaner environment.

4.5 Previous and current projects with a focus on environmental awareness - reasons for failures and successes

4.5.1 Previous projects

After agreeing to take on the portfolio of litter management for the WNHA, I decided to investigate the history of environmental projects undertaken in the village, because I wanted to establish what type of projects these were, who had organized and funded them and whether or not they had been successful. I felt that such information could lead to the identification of possible key role players in the communities, that it could indicate what was possible and what was not possible, and could make it more likely that projects planned as part of this study did not repeat or overlap with other projects. This investigation turned out to be most useful. All but one project implemented in the past are no longer in existence, and the reasons for failure in sustainability were generally common to all of the projects.

Much information was obtained during an informal conversation with GR, an elderly woman living in Wakkerstroom who has spent many years devoting time to the preservation of birds, specifically the crowned crane, which has its breeding grounds in the Wakkerstroom area. She has been involved in many programmes with children in order to raise awareness on the cranes, through poetry, writing and dance competitions. While the children entered these competitions enthusiastically and the events were successful, continued awareness of birds is questionable. She also started a vegetable garden initiative in a field behind the clinic, which was very successful for a long time. This garden was run by elderly women who were able to feed their families and sell surplus produce. However, as the women became too frail to work no young people came forward to continue working in the gardens and the project collapsed. GR also held garden competitions to encourage residents to plant vegetables, and these were a great success.

GR tried to institute a vegetable garden in a field that was attached to the primary school and went to see the head master. While he said that they were welcome to go ahead his experience had been that people were not inclined to work without payment. GR and S approached mothers to discuss the idea of the garden but, indeed, they wanted payment. S also started a wildlife club in the township for children, and 100 youngsters arrived on the first afternoon, around forty the next week, less than twenty on the third – their mothers wanted to know how much they were going to be paid for attendance. This was interesting to me once I began working with the children at the Sunday workshops, as I expected attendance to drop off or a request for payment to be made but this did not occur.

In a conversation with one of the members of the WNHA who is also a member of the Working on Fire (WOF) team, I learned about a project initiated by a councillor who had rondavel shelters built where people could meet and relax where the informal dumps were. How this stopped the dumping he couldn't say, but he said that the areas were pollution-free. When the councillor's time was up and she left, the sheds were destroyed and the dumping started again. Again, it is another example of how projects are driven by champions and when the champion is no longer there, for whatever reason, the project collapses. It is also another example of a woman taking the initiative to make a difference. The following is an excerpt from my research journal entry in reflection after this discussion:

> *As much as we know that some people here are reticent to work and are not prepared to take responsibility unless they are paid, it IS possible to source individuals who are passionate and better equipped to be ambassadors.* (journal, 8th February 2017)

Another source of information regarding projects in environmental awareness and community upliftment was the manager of the Wakkerstroom branch of BirdLife SA. There have been a number of projects run under the auspices of BirdLife SA, mostly in conjunction with other organizations. None of the projects seemed to have begun with a thorough investigation into what the community needed prior to planning, and this conceivably could be the reason that most of them failed. The programmes were planned from the top down, with little or no financial control being in the hands of the participants, with weak reporting structures and little follow through from organizers. All the programmes ran well as soon as a specific individual stepped up and took control, and the programmes that failed did so because these individuals either left or died.

The relevance of these projects to this research study lay in my coming to understand why some projects failed and why some were successful and to use this information in planning my research project. Specifically, it seemed that there had been a lack of bottom-up approaches in these projects, with no acknowledgement of local sustainability, compounded by the loss of individual champions.

4.5.2 Current and on-going projects

The first clean-up of the vlei that I conducted as litter monitor for the WNHA occurred on the 16th September 2017. This was an important event in that it generated good data with regards to the waste that had found its way to the wetland, and I was thus able to make comparisons over time. The post clean-up journal entry indicates how it was planned and the outcomes that were observed:

> *About forty-seven people participated. We cleaned up much more of the vlei than I expected we'd be able to do, and we worked for only two hours or less. The wind was howling and it was really not much fun for those on foot, which was most of us.* [Four people were in two canoes, cleaning litter from the edges of the banks]. *I took my map of the vlei, which I had mounted onto a board so that it could be easy to view. I divided the vlei into areas marked from A to I and drew up a spreadsheet for volunteers to report what section they'd cleared, what they had pulled out and how long they had worked. This was to get an idea of what waste is ending up where. I also added a column for time worked. Thus bulk pulled from the vlei could be linked to time. Therefore if someone worked for an hour and pulled out three bags in section A for example, and someone worked for three hours and pulled out one bag in section B, then ergo, there is more trash in section A.*
>
> *Despite there being recyclables in the mix, particularly glass, it was all contaminated. This is because for the most part all of it has been there for a very long time and therefore subject to the elements. What information I can gather in order to make comparisons over time, with the bulk of waste gathered during clean-ups, where it occurs regularly, including weather patterns that may affect movement of litter, is important.* (journal, 27th September 2017)

In early 2018, as part of my work for the WNHA, I initiated a drive to install swing bins. These are forty-gallon drums, attached to upright poles, which are cemented into the ground. This means that the drums cannot be stolen and makes them easy to empty since they can be overturned on a pivot. This project was undertaken with the permission of the technical

manager of the Pixley Ka Seme council who is in charge of waste removal and the landfill. The intention was to install these bins in specific places identified as litter 'hot spots'; in other words, places where people tended to gather and then throw litter on the ground. Once these were installed the technical manager instructed workers to empty them on a regular basis. These bins have been a success, with residents using them to discard litter and workers emptying them regularly as instructed.

A drive to collect cold drink bottle tops and bread bag tags was undertaken and will continue indefinitely. This is part of the Sweethearts Foundation initiative which trades wheelchairs for those in need, for a predetermined weight of these recyclable items. Another drive was to make eco-bricks by filling two-litre cold drink bottles with non-recyclable plastics such as cling wrap and crisp packets, which are then used for building as with standard bricks. The first structure built with these eco-bricks was a bench constructed next to one of the swing bins situated at the entrance to the village where people wait for transport. The adults have embraced these drives and drop off points have been allocated, with people either donating their time by making eco-bricks or collecting non-recyclables for stuffing bottles.

4.6 Sites littered predominantly by children

By recording what types of litter are apparent in specific areas over time, it was possible to establish who was responsible for littering in each area. For example, many plastic bottle tops are to be found outside the spaza shops. People buy cold drinks, open the bottles and discard the tops in the road. The rubble that is dumped in ditches is put there by people who have vehicles, and beer bottles are dumped in various spaces by men who frequent taverns. During all community clean-ups all waste was monitored and compared to previous waste collected from the same areas. It was however, the areas that are affected by the behaviour of children that I focused on, since children are the focus of this study.

There were four main sites at which it was clear that children were responsible for littering. The school yard came as no surprise, and this was consistently littered. The bulk of the litter was made up of snack packets, lollipop sticks and wrappings, and paper related to school work. Clean-ups that were arranged as part of workshops at The Potters' Place were followed up by subsequent clean-ups the following week, and the children participated in comparing and tabulating the bulk. This was done by counting the number of black bags that were filled, and

examining the contents of the bags. Every week the same amount of litter was collected and the children were questioned as to where they thought it all came from. As much as they all agreed that it was children who were responsible for the littering, none of them owned up to it.

The second site where children consistently litter is a central point in town, near the shops. Buses bring primary school children to this point from eSizameleni after school where they need to wait for the high school to close before other buses take them home to outlying areas. Many children buy snacks while waiting for their bus. Again, the bulk of the litter is snack packets, lollipop sticks and cold drink bottles and tops.

The third site identified as being littered by children was the town library. Since there are swings next to the library many children spend their time playing there in the afternoons. The content of the litter was the same as at the school and in the road where the buses drop them off.

The fourth site lies on the road outside the primary school in eSizameleni, where children buy snacks before and after school at a spaza shop opposite the school. There is a more than adequate supply of bins both next to the shop and opposite, at the entrance to the school, yet children do not use these. More often than not, though, the waste in the bins blows out of the bin further littering the road.

The four sites mentioned above were specifically identified so that possible change over time could be monitored, as they could provide an indication of changed behaviour in children with regards to littering, and therefore of the efficacy of the study.

4.7 Conclusion

From investigations under the auspices of the WNHA and then during the reconnaissance phase at the official start of this study, it became clear that it was not awareness that needed to be raised in the children, since they had a clear understanding of environmental degradation and the need to halt littering and dumping behaviours. What was needed, however, was a means of bridging the gap between awareness and action, since the children did not behave in a manner reflecting what they had learnt in school.

Informal conversations with teachers indicated that while environmental awareness is taught in schools as part of the curriculum, it is given limited attention. Not only this, but any action that the children or young adults have engaged in at school with regard to litter collection has been in a punitive context. For the purposes of this study one of the most important questions that needed to be addressed was whether it was possible to make the leap from awareness to action with regard to environmental issues, without this involving payment in any form. Further to this, a question that needs to be asked is whether attitudes and behaviours that have been changed are likely to remain so, thereby continuing to contribute to a clean and healthy environment.

In the planning of the study, it became clear, through data gathered in the reconnaissance phase, that all events, projects and initiatives had the participants' needs at their core. Projects initiated in the past in the area, that had not been sustainable, had conceivably failed because they were planned from the top down without consultation or negotiation with participants. These projects appear to have failed because they were planned with a perception of the needs of disempowered and impoverished peoples in mind, yet with no real collaboration with these people. This means of initiating projects may be a legacy of apartheid mentality, which needed to be taken into account for this research, and concurs with the opinions of many of the authors referred to in Chapter Two, where community development was discussed. Unfortunately, South Africa will continue to suffer the legacy of apartheid for many years to come, especially in the rural areas where racism is still a serious concern. In the early post-apartheid years Collins and Hall (1999) made the following observation:

> "[t]he expert planners discovered that the resultant lack of co-operation on the part of the communities was due to these projects being implemented without a feeling of *ownership* by the communities. In the light of South Africa's history of oppression, we should recognize that empowerment and competence will not come naturally" (p.19, italics in the original).

Block (2009) states that "…sustainable changes in community occur locally on a small scale, happen slowly, and are initiated at grassroots level" (2009, p.26). Roseland (2000), quoting Brohman, (1996), sums up much of what I learned from the reconnaissance phase of this study:

> [i]n general, sustainable development strategies should favour bottom-up over top-down approaches; redistribution over 'trickle-down', self-reliance over dependency; a local rather than regional, national or international focus; (Brohman;1996)" (2000, p.105).

In the planning of the study I learned, too, that it was highly unlikely that I would be able to remain separated from local politics, since most environmental issues include some sort of political agenda, especially where there is money to be made at the expense of the natural environment. Even as far back as the early 1940s researchers were recognizing this unavoidable connection between research in the social sciences and politics. Monica Wilson, an influential anthropologist of that time, indicates that in "[r]esponding to his [her husband and fellow anthropologist, Godfrey Wilson] view that academics should not involve themselves, as academics, in politics, she [Monica] noted that politics 'would be difficult to keep out' in South Africa" (Morrow; 2016, p.173).

For all the reasons outlined above, this study could therefore not ignore the adults who have the responsibility of socializing and enculturating their children, the political forces that drive and/or control environmental concerns in the area, or the various pedagogical institutions in which the children learn. However, while only a rudimentary engagement with adults was initially planned, this was to change in the course of fieldwork, as will be shown in later chapters.

Archer and Newfield state that "[i]t is generally held that the ideals of our progressive and humane national policies remain largely unachieved and that a huge gap exists between policy and practice, as well as ideals and their actualization" (2014, p.3). This is a most poignant statement and one with which I strongly concur. The findings of the reconnaissance phase of this study highlight a massive disparity between legislation, enforcement, education (both formal and informal) and reality in the field of environmental custodianship in South Africa. If there is strong legislation, relevant material in school curricula, environmental education in the informal sector and a range of waste recycling initiatives it could be expected that there would be very little visible littering or dumping in the country. However, the manner in which all sectors appear to work in silos is exactly what deep ecology and eco-feminist theorists are speaking out against. There needs to be a closer working relationship among all stake-holders, including government agencies, environmentalists, educators, parents and NGOs for any real change to be made concerning the problem of waste in South Africa. This, then, is the intersection where this research study sits, in that it aims, within its small research site, to close

the gap between legislation, education, information and knowledge within society and communities and practical implementation of environmental good practice.

In Chapter Five I discuss the first action research cycle, with descriptions of the interventions, findings from these, and the learning that informed the subsequent cycle.

Chapter Five: Action Research Cycle One



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5.1 Mapping the chapter

The focus of this chapter is the first action research cycle which was conducted in 2018. The chapter begins with an outline of the planning for the interventions and this is followed by a description of these interventions and finally, by analysis of the data generated by them. The interventions in Cycle One took many forms, including site visits, discussions followed by drawings, and two interventions conducted by professional theatre practitioners.

5.2 Planning

Much data had been generated during the reconnaissance phase of this research project and this was invaluable for planning the first intervention. Of particular value were the relationships developed from the beginning of the work for the WNHA and WAG, and also with individuals such as Ms Nsibanda, during which the project was conceptualized and Cycle One was planned.

5.2.1 Sourcing research participants

The director of The Potters' Place Educentre, Charity Nsibanda, who has given permission to be named in this thesis, was most helpful in identifying possible research participants. She provided me with a list of children whom she thought would be suitable for the project, based primarily on their proficiency in English. The initial list comprised approximately forty children. Through a letter and follow up telephone calls to parents I was able to identify twenty-five children who were interested and who had parental permission to attend the workshops. These children ranged in age from six to thirteen.

All twenty-five arrived for the first workshop. The second workshop had thirty-three in attendance, and this was a surprise as I was expecting that there would be a gradual drop in attendance and commitment as the project continued. In fact, the opposite occurred, as attendance at the third workshop was thirty-eight. During this workshop a number of mothers arrived in order to enrol their children, as they had heard through word of mouth that the workshops were happening.

The final attendance settled at between twenty-five and thirty-five children; some missing various workshops for a number of reasons (family, school commitments and so forth), and these were to attend for the rest of the year with very few dropouts. From the Litter Lion song that had been written, performed and subsequently taught to all the children whom I had worked with under the WNHA, the participants came, by default, to be referred to as the Litter Lions.

5.2.2 Ethical considerations

Information forms and letters of consent were sent to the parents and the children via The Potters' Place Educentre before workshops commenced. These letters were in English and isiZulu to minimise misunderstandings regarding the project itself, the outcomes, the expectations of both participants and researcher, and the time frame. Consent letters were issued to the children at the first workshop, where the contents were again outlined by the director of The Potters' Place. (See Appendix C). Signed letters of consent were filed and locked away. These letters referred to the first cycle of the project and further letters were issued at the start of each subsequent cycle. This was to ensure there was continuity in understanding what the project entailed, and to accommodate possible additional participants.

5.2.3 Venue

The Old Bioscope was used for activities. This is a renovated movie theatre in the main road that enters the village. As there is no charge for the use of this venue for community work, it was a good space to hold workshops for this project. The hall is attached to a garden, so work could be conducted inside or outside depending on the activity and the weather. There are also toilets and a kitchen available. As much as this was good space to conduct the workshops, it would have been preferable to have had access to a community space in eSizameleni to avoid any transport challenges, and also to be more visible to the local community. However, there was no such functional space in eSizameleni.

5.2.4 Transport and catering

Transport to and from the venue was provided for the children, since eSizameleni is four kilometres from the Old Bioscope. The children received a cold drink during the morning of each workshop, and if there had been any community donations of fruit or biscuits these were handed out. The children were made aware that this only happened when such donations had been received.

5.2.5 Art supplies

This was a big challenge to address without external funding, since part of the intervention involved children creating drawings, poems, objects (such as puppets) and fabric painting. Calls for donations resulted in community members contributing some useful art supplies and other useful material, which were supplemented from my personal funds. For the first cycle these comprised A3 and A4 paper, crayons, felt pens and pencils. Fabric paint was donated for t-shirt painting as were scissors and paintbrushes, and t-shirts were bought from WNHA funds. Any activity that may have resulted in damage to the building in any way, such as painting, was held outside in the garden. This impeded on some of what was planned since weather did not always permit work outside. Most of the planning of workshops for this cycle avoided the use of paint and ongoing craft projects over time since it was not possible to store unfinished work.

5.2.6 Engagement of professional theatre practitioners

From the start of the research project I had intended to engage the cooperation of one or more of the professional theatre companies that work within community development. There had been some very encouraging meetings with various companies whose members seemed enthusiastic about coming to Wakkerstroom to give workshops, and it was with this

understanding that the proposal for the research referred to the participation of such a theatre company. Unfortunately, none of the preliminary work with these companies came to fruition, and initially this was most frustrating and discouraging, especially considering that applied theatre was central to the project. This presented me with a challenge, especially for the first cycle, since my career in the performing arts has been in the technical side, and I was relying on the performing aspect being facilitated by others. It became clear that if I were to have the assistance of a professional practitioner or group of practitioners, it would be for payment.

5.2.7 Research assistants

Identifying a reliable research assistant also proved to be challenging. Although the children were identified for their command of English, it was felt that a first language isiZulu speaker would be helpful for making certain that children understood concepts and instructions. I also needed another adult to assist with control of the large group, as the children could easily become unruly and over-excited. The director of The Potters' Place attended the first few workshops, and she was instrumental in assisting with any translation and discipline needed, but other commitments prevented her further attendance. A Music Festival intern was then approached, but unfortunately he was unsuitable for the position in that he did not have the disposition needed to work with children. In the end Cycle One of the research project was conducted without a research assistant, with the exception of Mr Tshabalala who assisted with the process drama activities described later in this chapter.

In *The Qualitative Research Experience* Temple and Edwards state that "…the influence of the translators and interpreters, who are usually native to the culture being investigated, is rarely discussed (Temple and Edwards; 2002 in Padgett, 2004, p 179). Shibusawa and Lukens note that "[t]he extent to which issues of cultural and linguistic transferability have been glossed over in qualitative research is a major concern given the central role of language in qualitative research" (in Padgett; 2004, p.190). This central role of language(s) cannot be overemphasized, and was a challenge that was to have an impact on many of the interventions, both with sourcing the relevant person, and also with translation. Subsequently Mr Tshabalala was employed for a stipend, to assist in further work in Cycle Two.

5.3 Interventions

A number of activities within the interventions ran concurrently in the first cycle in order to promote and sustain the children's interest and involvement. These were site visits, drawing activities, t-shirt painting and a process drama workshop. The cycle began with a play-making

workshop, which culminated in a performance at the end of the first school term. The cycle continued during the second term and culminated in a parade as part of the annual Wakkerstroom Art Ramble. A performance, which had been workshopped during the term, was held at the end of term three and this was followed by the process drama which included an end of year presentation. Since the interventions ran concurrently, they are not presented here in chronological order, but rather described under their respective category headings.

Analysis of the various interventions involved identification of criteria appropriate to each one, as outlined in Chapter Three. The description of each intervention is followed by analysis based on these criteria.

5.3.1 Play-making workshop by Craig Morris, and subsequent play-making by research participants

Since several attempts to engage a professional theatre company to conduct workshops had failed, I decided to approach Craig Morris, a Johannesburg actor, who agreed to conduct a workshop with the children.

I felt that the stakes were very high for me on the morning of the 21st January, since this workshop was the first part of the fieldwork for this study. The following journal entry attests to this:

> *The first workshop with my research participants is this morning, and I'm terrified! I suppose mostly it's the beginning of the real stuff that is to form my research and if I don't get it right in the beginning it's a mess up.*
>
> *Having said that though, I just need to relax into the process today, enjoy being with the children and learn from Craig. The hope for me is that I'll be able to form something in my mind to enable me to guide the children towards a performance at the end of term one.* (journal, 21st January 2018)

The children were taught basic acting techniques during the one-and-a-half-hour workshop, which began with warm up games after which they were guided through a series of exercises that culminated in the formation of a character. Mr Morris instructed the children as follows, taking them step by step through the process, with demonstrations:

> "Think of an emotion or attitude and create the facial expression for this. Add a still gesture which compliments the face. Then add a body shape or posture which

compliments the face and gestures. Now press 'unpause' and bring this shape to life. The face, gesture and posture determines how the character moves – light, heavy, fast, slow etc. Now add the voice. What does the character sound like? Do they make outside noises, or interact with environmental sounds? Add an object, real or mimed, which further enhances the character. Finally, where would you typically find this character? Show us the environment they occupy. Voila! If you play this sequence out from beginning to end, you have the beginnings of a story". (excerpt from Mr Morris' notes)

From this work I was able to plan the next workshop, and I was able to use this methodology continually throughout the rest of the cycle, building on what the children had learnt and adding activities from various other acting manuals. These manuals are mentioned in Chapter Two of this thesis. The following is a post workshop reflection on the 28th January:

I had a fairly structured idea of what I wanted to do, but then allowed the process to take its own shape. We played warm-up games and then I split them into two groups. Each group thought up a scenario where a person or persons were damaging the environment, and then showed how they would deal with it. Group 1: a restaurant. Table and chairs made up of bodies; a client who ordered bread, coke and chips; ate and then dumped rubbish on the floor; owner chastised the client who picked up the rubbish and put it in the dustbin. The rubbish was acted by the kids as was the dustbin. Group 2: a group of herd boys herded cows to a pond to drink; while they were drinking the boys relieved their bowels and bladders into the water; the creatures that live in the pond shouted at the boys for polluting the water. (journal, 28th January 2018)

It was clear that the children made use of what they had learnt from the previous workshop facilitated by Mr Morris. This was most encouraging, since it showed that I was able to build on what a professional actor had taught them, and that the children were able to absorb information and carry it through in action into the next workshop. It was also exciting that they were able to create inanimate objects, such as a dustbin, tables and chairs, using their bodies. This was seen also in the pond vignette where the children acted as animals, reptiles and fish with voices of their own to express their displeasure at the pollution of the water. The journal entry ends with the following:

The overall impression I've come away with is that this process is going to work in terms of participation. The children are enthusiastic and are sad when the time is over. They leave upbeat and excited. (journal, 28th January 2018.)

The excitement of an outsider working with the children had worn off somewhat by the time of the third workshop, but the discussion outlined below enabled me to see that some children were starting to think about who was responsible for littering. This was significant in relation to later discussion in which the children slowly confessed to being responsible.

The children were taken on a walk around the municipal buildings during which they collected litter. Three big bags of rubbish were collected. We then discussed what had been collected and who was likely to have thrown down particular items. The children decided that it was likely that children had thrown down chip packets and lollipop sticks, and adults were responsible for discarding beer bottles. They were adamant that they themselves do not throw litter on the ground, although there are always lollipop sticks and chip packets discarded in my car and on the grounds of the Old Bioscope after workshops. This littering behaviour was confirmation of what I had established in the reconnaissance phase of the study.

The children then worked on the two plays that they had initiated during the previous workshop. They understood the need to rehearse and get them right for performance, yet they did need guidance. I ended the workshop by telling them a story which they listened to attentively. From here I realized that it was important to break the workshop into sections. Each workshop would start with warmup games, followed either by rehearsing the play or an activity such as a short site visit and subsequent drawing or discussion. This section would end with a cold drink break after which there would be either rehearsals or drawing depending on what had been done earlier. Story-telling was a good way to focus the children if they had become too tired to concentrate any more. This became the basic structure of the workshops, with some variations to meet the requirements of the activities.

At the time of the next workshop I had a visitor staying with me who attended this workshop. She participated in it and provided an external view of the manner in which the children behaved towards me. The importance of this external eye, similar to the critical friend discussed in the action research literature, was vital at this stage. After the workshop the visitor told me that the children seemed deeply committed to the process, that they were attentive and enjoyed the manner in which I engaged with them. As a community worker herself, she observed that the children 'just want to be hugged, to be loved' perhaps because of receiving limited attention

at home. I kept this observation in mind throughout the research process. The visitor also taught the children an American First Nations song that gives thanks for the water that Mother Earth gives us, which they learnt very quickly (see Appendix F).

The workshop on the 11th March was awful, because I had to run the workshop by myself with no assistance, and had to hold the workshop space by myself. I found this very difficult and ended the workshop half an hour earlier, as the children were inattentive, disruptive and distracted. I was very despondent about the quality of the play that was to be performed the following week, and was worried that there would not be enough rehearsal time. However, in reflection a few days later I wrote about factors that contributed to my despondency:

> *An incident happened during the break. I'd given the children apples and at the end of break there were some apple cores and a sweet paper dropped in the yard. I asked why this had happened, and the answer was: "we don't see a dustbin, Carol". I think this was one of the reasons why I felt so terribly depressed on Sunday. I felt as if I'd failed. But now I realize that there were more children asking me for a bin than those that simply chose to drop their apple cores on the ground. It leads me to the next question that I can put to the children: what do I do with my rubbish if there is no bin?* (journal, 13th March 2018)

Despite all the challenges to be addressed, the children were able to construct a play suitable for performance. Over the course of the few weeks between Mr Morris's workshop and the performance the children first discussed what he had taught them and then used ideas from his workshop to develop a number of scenarios that had environmental themes as their focus. From there they democratically chose which of the scenarios they would work on towards final performance. They were able to use what they had been taught about character development in designing and performing vignettes that focused on environmental bad behaviour and were also able to communicate effectively with their audience. However, it cannot be assumed that meaningful impact on environmental behaviour was achieved through this one intervention. As Etherton and Prentki (2006) warn: "With applied theatre as a message delivery service, it is far easier to evaluate the outcome: the message is either understood or it is not. But impact occurs only at a point where the message changes attitudes and behaviour and is acted upon" (p.147). They further ask: "The immediate impact of a project of applied theatre may be measurable and may be included within M & E [monitoring and evaluation]. But are there also alterations in attitude and behaviour that are registered in the long term, sometimes over years

and generations?" (p.140). These observations and questions proved highly relevant to the findings of this study.

The performance was staged on the 26th March. There was a disappointing turn out of parents but many of the residents of Wakkerstroom came, including some teenagers, and two teachers. I provided a short explanation of what the objectives of the project were after which the play ran well.

The audience and children stayed for refreshments afterwards, and the children were taken home by their parents or walked home as pre-arranged. This enabled me to meet with attendees for a 'de-briefing'. Figure 5.1 is an image from the performance.



Figure 5.1 The Litter Lions taking a bow after the performance

Feedback, in terms of the performance and the work that I was doing, was positive especially with regard to the message presented, but also regarding the entertainment value of the piece Some of the comments included the following:

- "The children have really learnt a lot from the small time that you have spent with them"
- "Looks like you all had fun this term, and the message is really important"
- "I think that if this work carries on you will see a difference in these children. Don't give up."

Whether behaviour was changing through these drama activities still remained to be seen. Through analysis of comments and reflections in my journal, I was encouraged to realise I was

working towards a positive outcome in the research project, while recognising that success in terms of behaviour change may only be evident, if at all, long after the research was completed. However, and importantly, as Shaughnessy (2015) notes, in quoting Abingdon (2010), "[t]heatrical performance has the potential to change our experience of the world and therefore, the potential to change our ability to perceive the world in a new way" (2015, p.71). As much as the performance had not been a focus of the intervention, it was important for a number of reasons. It was important to the children that they were given the opportunity to show the work in a performance setting, and having encouragement meant that they were enthusiastic to continue the work that I was doing with them. It also showed me which of the children were team leaders, which meant that I could call on them to step up into leadership roles in the future. Finally, as Shaughnessy has stated, performance can potentially change the way that the world is seen and experienced, and this could be extended from the children to include the audience too.

I began to consider why it was that the children not only continued to attend regularly, but that there were times when new children arrived. This was contradictory to what I was expecting based on other projects of this nature that I had encountered in the reconnaissance phase of the work. At no point did a child or a care-giver request payment for attending the workshops, and in fact the opposite occurred, with at least two mothers wanting to know how much the workshops would cost.

A key aspect of the performance, which was the first of its kind of a number of performances during the course of the study, and of the workshops prior to it, was the development of relationships with the children and their care-givers. In rural South Africa, as a legacy of the apartheid years there is still limited trust of people outside one's own social group, as was affirmed in the reconnaissance phase, and thus gaining the trust of both children and adults through these initial workshops was invaluable. Building trust was a first step towards the mutuality of relationships advocated by eco-feminists. Bolak in Hertz (1997), states that "… an indigenous researcher runs the risk of being blinded by the familiar" and that "[t]he positions of 'insider' and 'outsider' are … relative and exist on a continuum" (p.97, inverted commas in the original). Here I was both the insider as a member of the same community but at the same time an outsider due to my position as both researcher and member of a different socio-economic demographic. Therefore the development of trust was important. I became known to the parents as a white person invested in the community and thus friendships developed that enabled further work to be easily planned and implemented. For example, in the arrangement

of clean-up events I was more easily able to solicit assistance of community-members from eSizameleni since I was now a familiar person. My interactions with children and adults also made me, as a representative of the WNHA and WAG, more visible, which benefitted the work that I did for these organizations.

5.3.2 Site visits

Each site visit entailed a short walk to the particular place, an activity in that place, a discussion of the children's experience and observations during the visit, and a final representation in the form of art or writing or both. The aim of these visits was to provide the children with a concrete experience of the concepts that were being presented to them during the workshops.

5.3.2.1 Clearing of waterway under the auspices of the WNHA

This event was a clear and useful learning experience for both myself and the children. Transporting children from eSizameleni to a workshop involved driving over a culvert containing a shocking amount of dumped waste. One of the children suggested that we clean up the waterway the following Saturday. Each time I had driven the children over this culvert I had spoken about the state of the water, and questioned why so much waste was dumped into these areas so I was excited by the child's suggestion and arranged the clean-up. I met the group at a specified time and brought dustbin bags and my trailer. The children were arranged into groups to ensure safety, with each group having an older child as team leader. During the morning many other children who are not part of the WNHA Litter Lions were intrigued by what we were doing, and a number of them joined in the clean-up. In two hours twenty-four bags of rubbish were cleared from the waterway, and we stopped only because we ran out of space on the trailer. Clean water and soap were provided for the children to wash their hands and then they were all given cold drinks.

This was a very important activity for a number of reasons. Involving participants as co-researchers is an important aspect of action research, and as Hart states, specifically with regard to children, they "… may be able to change people's notions of what is possible …" (1999, p.89). It was therefore most important to me that the research participants were as much a part of the research process as possible, as also advocated by eco-feminists. It was meaningful that one of the children had suggested the clean-up, and secondly, that awareness was raised in the wider community, because the activity was occurring outdoors rather than behind closed doors

in the workshop hall. Finally, it gave me the opportunity, when I collected the children the following weekend, to point out to them dumping that had occurred in the same area subsequent to our clean-up. This enabled the children to see first-hand how much is being dumped and the difference between how we had left the area after the clean-up, (i.e. clear of waste), and how polluted it had again become in such a short space of time.

Now the children were able to visualize what I had been talking about during the WNHA workshops. Importantly too, when we all saw how much waste had been dumped into the waterway in the week between our clean-up and the next workshop, and I asked if the children would continue to clear the site, the children said that they would never do it without me, stating that they would be teased and bullied by the other children if they were seen to be doing this without adult supervision. Whether this would have been an adult from their community or me specifically was not clear at this stage, yet this was pivotal in understanding a little of how difficult it may be to make a stand for the environment, especially for children.

5.3.2.2 Visit to the town dump

The second site visit was to the town dump. Here the children were issued with rubber gloves and tasked with picking up bottle tops to donate to the Sweethearts Foundation programme. The intention was primarily for the children to see first-hand what the town dump looks like, what is thrown there, and to understand how much of what is discarded can be recycled or reused. The focus was on collecting plastic bottle tops to be recycled in exchange for a wheelchair so that a particular object, which was quantifiable, could be observed in bulk form. Fortuitously for the purposes of the workshop, there had been a family of 'waste pickers' there, sorting through garbage to find items to sell. There was also a dead cow and a live dog and cow both foraging for food. These had an impact on the children and they were all visibly shocked at what was occurring there. After an hour the children were taken back to The Bioscope and were given paper and crayons to document their experience at the dump. Table 1 indicates what specific aspects of the town dump had an impact on the children, and the table is followed by three drawings from this intervention, which are discussed below with reference to Kress and van Leeuwen's seminal work on the grammar of visual design.

Table 1 Theme: response to the visit to the town dump; Litter Lions

number of drawings	14

unusable drawings	0
copies	2

focus of images:	
the dump itself	3
the dog	4
man/family of waste pickers	5
the mountain behind the dump	3
waste	7
no reference to the dump	8
no reference to the dump or waste at all	1
reference to dead animals	0

textual additions by the older children
"we drop things in the dump"
"it is not good to drop things on the ground"
"reuse, reduce, recycle; doing our best to avoid this"
"we must not throw rubbish in the dams"



Figure 5.2 image of man with saw



Figure 5.3 image of dog eating waste



Figure 5.4 image of girl throwing waste

The analysis of the drawings focused on which aspects of the site visit the children chose to draw, as summarised in Table 1. In the first of the three images (figure 5.2), one child chose to show the waste picker using a hacksaw to cut firewood, with the mountain and the stone

inscriptions on it shown, behind the dump, in a position of high salience (Kress van Leeuwen, 2006) as they are in reality for the residents of Wakkerstroom-eSizameleni. The ox wagon and the dates refer to the celebration of the centenary of the first settlement in the area of 'white' farmers who had moved north from the then Cape Colony. Waste was included in the bottom left-hand quadrant, and, although not in a salient position, its inclusion indicates that the child took notice of what was in the landfill. In figure 5.3 the placement of the human figure and the dog against a plain background, the direction of their body movements and their gaze all draw the viewer's attention to the mountain of rubbish in which a number of individual waste items are depicted. The third drawing (figure 5.4) is complex because it can be read in at least two different ways. On the one hand it could be argued that the upright position of the figure shown facing the viewer, together with her smile, suggests an 'in your face' lack of conscience about dumping. On the other, the child who made this image may have wished to depict a responsible citizen who is dumping her rubbish in a bin and is pleased to be doing so. The image maker may be confused about the distinction between a rubbish dump and a rubbish bin, especially as both image and words are similar to posters provided to schools to show responsible behaviour.

In the discussion which followed the visit to the dump and the drawing activity, it was evident that, without exception, the children were visibly horrified at the state of the dump. They found the site noxious, were upset about the family and animals foraging in the waste, and clearly found the waste altogether unpleasant. While their reaction puzzled me because there are many informal dump sites in eSizameleni, which are as noxious as the town dump, and where animals forage for food, it may explain why there was no reference to the dump or waste in more than half the drawings they had made.

Several children had picked up items from the waste that they wanted to keep and they questioned why anyone would want to throw away such items. The whole group was intrigued by the idea that discarded plastic bottle tops could be collected and used to assist in the purchase of a wheelchair.

The discussion and some of the drawings showed understanding of the possible usefulness of the waste of others, the amount of waste that is discarded that can be recycled or reused, and the hazards of a toxic landfill. However, subsequent to the workshop no bottle tops were collected by the children, unless they were specifically asked to do so, and it is not likely that

they would have foraged in informal dump sites near their homes for reusable items, perhaps because of the fear of teasing as mentioned previously.

5.3.2.3 Clearing of grounds around the municipal offices, library and the school

On a number of occasions, the children were taken on clean-up walks around the municipal offices and the library, which were sites identified as being affected by children's behaviour. After two of these walks, one at the school during a Potters' Place workshop and the other at The Bioscope during a Litter Lions workshop, the children were tasked with making a drawing in response to what they had seen and done.

In discussion after the clean-ups of these areas the children consistently made the same responses. They all agreed that it was the children who were littering but emphatically denied dropping litter themselves. As indicated in the table, in the drawings that they were subsequently requested to make, most of the children referred to litter, particularly the older ones, but there was little direct indication of taking personal responsibility for littering. However, this may have been because depicting such responsibility is more of a challenge than making a general statement or response. In three of the five images below the table, the statements about pollution and littering include the inclusive pronoun 'we' in the text that is part of the drawing. These comments could be an indication of children including themselves in a community response. Figure 5.8 includes a rhetorical question and its answer is a personal reflection.

Table 2 Theme: response to clean-ups at the library and the school; Litter Lions and Potters' Place

number of drawings		43
unusable drawings		11
copies		0

reference to litter		age group
no reference	4	diverse ages
some reference	9	6-9 years
reference	23	of these 17 = 6-10 years; 6 = 10-13 years
acknowledgement of responsibility	0	
addition of text	6	

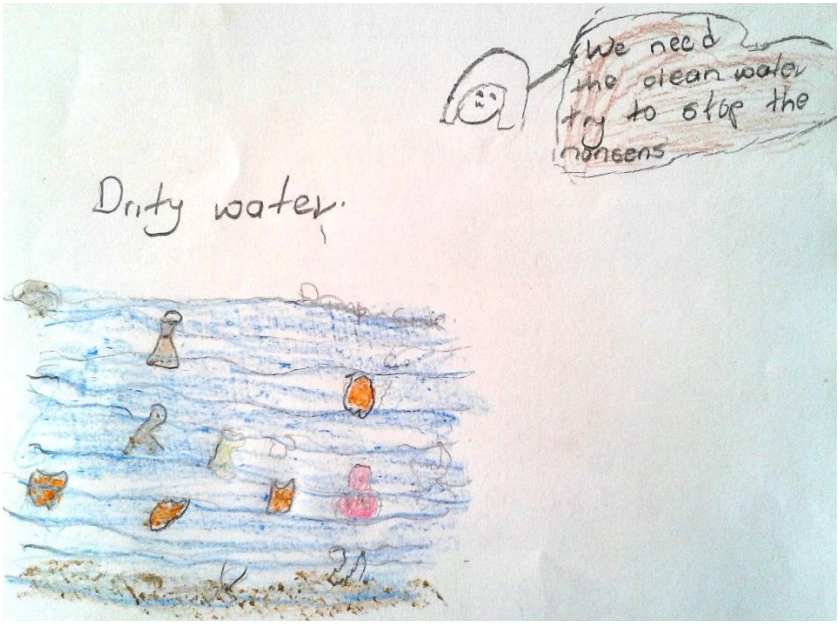

Figure 5.5 Image showing waste in water

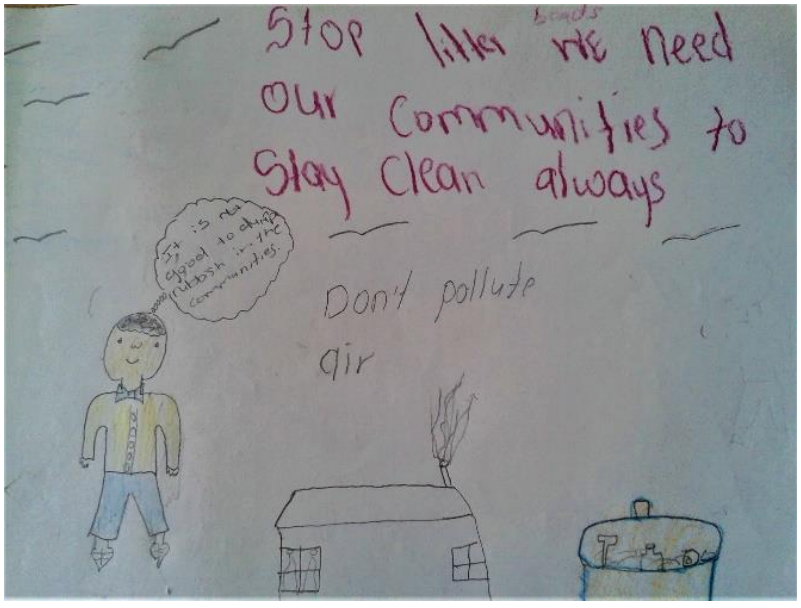

Figure 5.6 Image showing hazards of littering



Figure 5.7 Image showing an animal eating waste from a bin

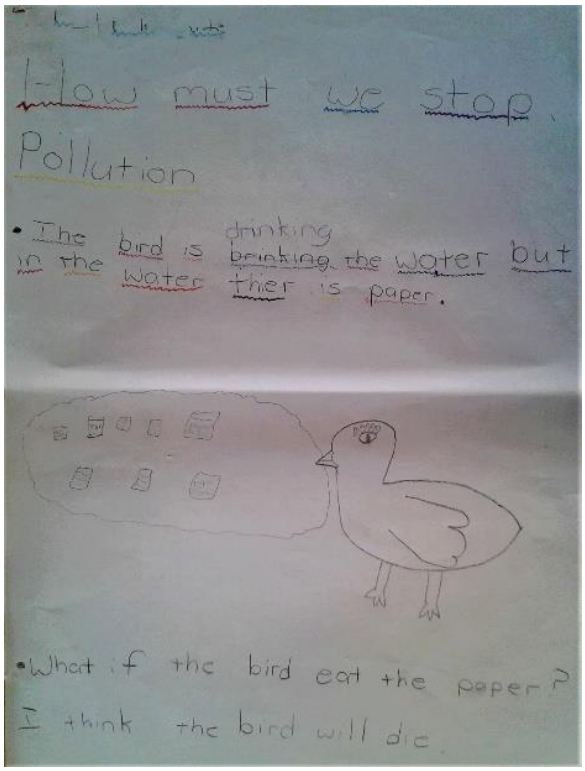

Figure 5.8 Image showing the connection between waste and wildlife

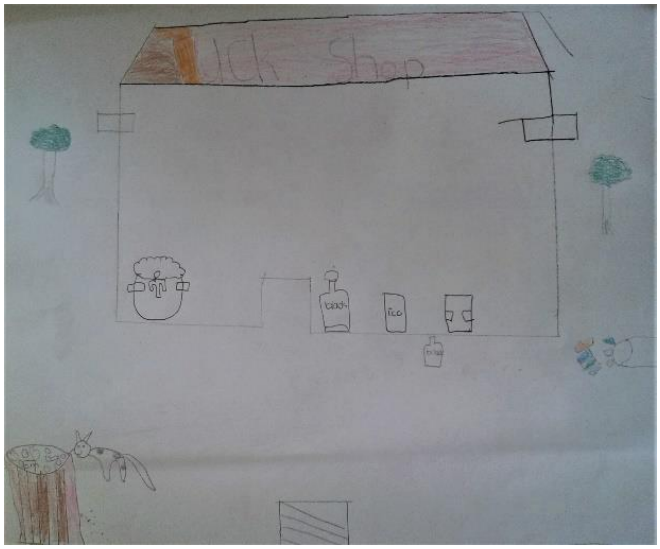

Figure 5.9 Image showing waste at the school grounds and an animal eating from a bin

5.3.3 Art and craft workshops

These workshops took various forms and the objective was different each time. What follows is a description of the workshops, their objectives and their outcomes.

5.3.3.1 Body mapping

While reflecting on the first activities in which the children participated I realised that it could be important to understand what life experiences the children had encountered. I wondered whether an experience such as living in a grandmother-headed household, or the loss of a parent, may have affected behaviour with regards to the environment. I thus decided to hold a body-mapping workshop. Body-mapping is an activity in which participants make a life-size drawing of themselves, and indicate significant events in their lives, by inserting images or text onto the drawing in relation to a specific position on the body. As Jager et al (2016) have stated "… it may be useful to consider what using body-mapping (which encourages visual processing and/or embodied awareness) offers in terms of access to information which would otherwise be overlooked or rendered invisible" (p.4). Also that "[b]ody-mapping possesses certain attributes, rendering it uniquely suited to particular research projects" (p.3). Jager et al give as an example research work in which there may be a language or cultural barrier between researcher and participants. Body-mapping is generally understood to involve the internal perception of one's own body, but in this sense, it can be used as a creative endeavour, both as a means of healing and a means of accessing the life-experiences and self-perceptions of others.

The exercise with the children was largely unsuccessful in terms of my objectives, although they enjoyed themselves tremendously. They particularly enjoyed lying down on the large pieces of paper provided, and drawing the outlines of their bodies. The drawings they made showed the kinds of clothes and accessories they like to wear and sometimes mentioned family members. Many of the children simply copied each other. The process may have been more useful if I had worked with them on small components over several weeks towards a final drawing. It could also have been the case that the children were too young for this type of activity.

Fourteen drawings were completed by the end of the workshop, and the table below indicates what issues were mentioned. The drawings that had no indication of any embodied experience or addition of anything other than accessories were not included in the analysis.

Table 3 Theme: body mapping

image number	position of text on the body	Text
1	outside the body	I have good parents
2	heart	I am happy Mom is still alive
	shoulder	thank God for keeping my family safe
	chest	I feel sad and lonely that I don't have a girlfriend
	stomach	I broke someone's heart
3	heart	I love my Mom and Dad and Granny
4	heart	my Mom does not love me
5	arm	our dogs hurt me but I still love them. I will always love them
	heart	I love my parents and my sister and my brother
	stomach	my friend lied about me
	shoulder	my teacher hurts me when I do something wrong
6	heart	I love my sister and my brother
7	heart	I love my sister. I love my brother
8	outside the body	reference to a good family
9	outside the body	reference to a boyfriend
10	stomach	my dogs are thinking about me
	head	I like watching TV

Below are two of the children's drawings. In Figure 5.11 the 'message' shown in the detail from a body map suggests that this child is familiar with the greeting card or thank you letter genres which form part of the school curriculum but has not understood the instruction to refer

to personal feelings. The second example (Figure 5.12) indicates that the image maker is able to express feelings visually and in words (smiling mouth, down-turned mouth, heart shape) but with limited reference to specific events (e.g. 'I am happy about the choose (sic) I have chosen').



Figure 5.10 Image showing writing on the body

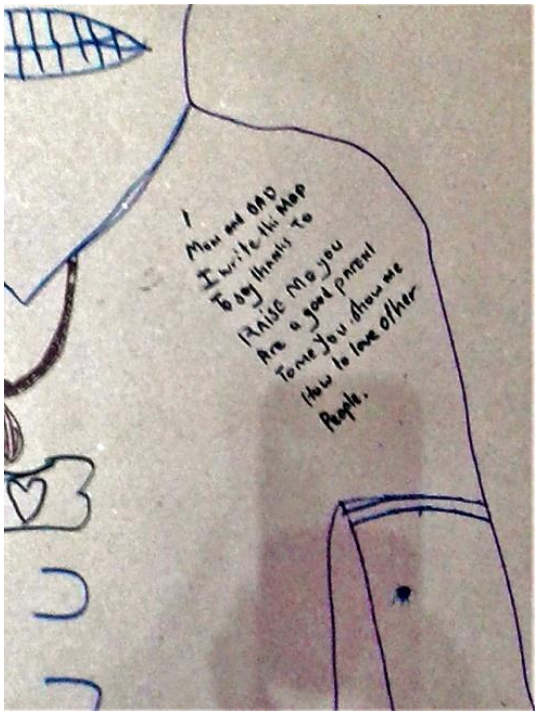

Figure 5.11 Detail of Figure 5.10



Figure 5.12 Image of writing on the body

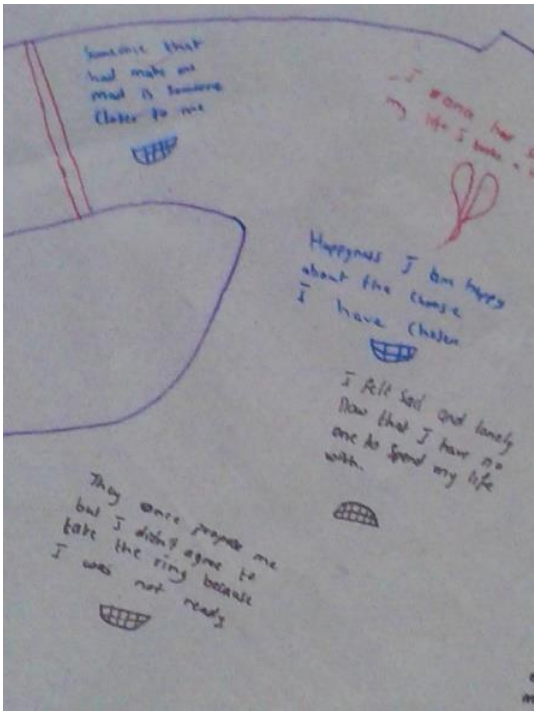

Figure 5.13 Detail of Figure 5.12

5.3.3.2 T-shirt painting

The Wakkerstroom Art Ramble provides an opportunity every year for creative work that goes beyond the work done with the children for this study and for the WNHA. Taking advantage of this opportunity allowed me to expose the children to other forms of creativity and to build awareness in the community of the work I was doing with the children. For this intervention the children were provided with t-shirts and fabric paint, so that they could enter for the children's section of the annual art competition, which had as its theme 'In flight'. This afforded the opportunity to explore the various creatures that fly in the natural environment around us, and what these need in order to remain healthy and able to continue to fly. I did this through a focus group discussion.

The images that the children chose ranged from birds of prey to little sparrows and insects, but also helicopters and airplanes, which showed a good understanding of the theme of the competition. One of the Litter Lions won the children's section of the art competition with her image of an eagle. Below is a photograph of some children painting their t-shirts, but I was unable to photograph the t-shirts before the children took them home, as my cell phone became faulty.



Figure 5.14 The Litter Lions painting their t-shirts

5.3.3.3 Banners

The children made banners for a parade that I had arranged as part of the Art Ramble, using old canvas that was donated and poles scavenged from the dump. They had never participated in a parade before, and their understanding of a parade extended only to political rallies and marches, so they were therefore guided in the functions of banners. In discussion, the children chose the wording and all contributed towards painting them. Three banners were made, all sporting anti-litter slogans.

The objective of this activity was to prepare the children for participation in a parade alongside other members of the local community. Since they had never experienced anything like this before, it was also a good opportunity to educate them about the nature of advocacy on behalf of the environment. The parade is discussed in section 5.3.4 below.

5.3.3.4 Paper packet puppets

This intervention, where the children made puppets out of paper packets, was specifically designed without an environmental theme because I was aware that work with the children had the potential to create eco-anxiety. Pihkala states in this regard that "[s]ome population groups

are shown to be more vulnerable: - children, teenagers i.e. those who are generally unable to cope mentally, - people who depend on nature for livelihood…" (2019, p.10). This description certainly applied to the research participants, both since they are children and because many of them have some dependency on nature, for example, cattle-grazing. If an environmental theme came into this workshop from the children themselves then I did not prevent it, but I was conscious of the need to provide space where creativity could be explored without a focus on litter.

The children chose their own characters to make and the puppets varied from auto-biographical representations of themselves, to animals such as cows or dogs and cats. The last half hour of the workshop was spent devising and performing short puppet shows, with the children grouping themselves as they chose.

Similar to the observations made by Schmidt and Schmidt (1998), I noted the children's ability to speak through the voice of the puppet. Suddenly, reserved children became articulate and funny. Stories told through the puppet shows included discussion on what had happened at school, plans for the weekend, and a moment where a parent chastised a child. The workshop was important because it allowed the children to express themselves without task-orientated instruction, and this gave them freedom that they perhaps lack both in school and in the Litter Lion workshops. It also provided me with the understanding that this form of creative art had the potential for performance to a larger audience at a later stage. Below are some images of the children with their puppets.







Figure 5.15 Children with their paper packet puppets

5.3.4 Parade

The parade was held on the second day of the Art Ramble, starting in eSizameleni and ending at the Town Hall. The children wore the t-shirts they had painted and carried the banners that had been made the week before. All the songs that had been rehearsed over the previous months were sung during the parade and then performed on stage at the Town Hall. Many villagers attended the parade, with adult volunteers in cars ensuring safety. A number of children who were not members of the Litter Lions also attended, and many children who were curious about what was happening decided to join the parade just for the fun of it. Many of the parents and/or care-givers were in attendance as well as community members that had responded to the general invitation put out on social media.

The parade generated much interest in the community and was, in this respect, a success. I suspect the reason why so many people came out of their homes to see what was happening was that something like this had never been done before in eSizameleni. Messages sent via social media, and the fact that the parade was in conjunction with a village event, meant that there was also interest from visitors as well as residents of Wakkerstroom. The children enjoyed themselves and a sense of solidarity was apparent, although it was not possible to establish whether anyone, children or adults, had received an environmental message.



Figure 5.16 one of the banners for the parade

5.3.5 Process drama facilitated by Susan Hall

Ms Hall was a member of the DfL staff when I initially approached the academic unit for assistance with workshops for this study. She agreed to come to Wakkerstroom and conduct a series of workshops that included process drama, embodiment work, and drawing. These workshops ran over a period of three weeks.

Ms Hall first established what the children knew about littering and then facilitated a process drama workshop and a post workshop reflection. Next, she guided the children through a group work activity where what had been learned in previous interventions was explored through the body. Finally, she took aspects of all the workshops and used these in preparing the children for a performance for family and friends.

5.3.5.1 Planning of the process drama

Ms Hall was briefed on what the project entailed and was sent the proposal for the overall study two weeks prior to her arrival in Wakkerstroom. She decided that it would be appropriate to use process drama for her workshops, beginning with a range of activities which would enable her to understand the children's 'drama readiness' and their environmental knowledge

The first two workshops involved structured play activities, which comprised standard dramatic warm-up exercises, games where names could be learnt, and miming and character-building activities and techniques similar to the ones that Mr Morris had taught the children. In an introductory activity Ms Hall gave the children paper and asked them to write what they had learnt from me during the workshops in which they had participated. The children could submit as many answers as they chose. In the table below the numbers corresponding to the responses indicate how many children offered that item of information. For example, seven children said that I taught them to stop littering:

Table 4 Theme: response to "what has Carol taught you?"

Responses	
stop littering	7
game playing	2
clean the environment	1
acting	3
story telling	1
help the community	1
care for animals	1
drawing	1

These responses could be placed in two categories: (i) environmental good behaviour: stop littering (7), clean the environment (1), help the community (1), care for animals (1); (ii) creative activities: acting (3), story telling (1) and drawing (1).

The children were then placed in six groups of four and asked to write single words that they connected with recycling. From this Ms Hall and I were able to obtain further understanding of the children's knowledge and thoughts to add to what we had observed of their behaviour and noted in their drawings. It was encouraging to find that many of the words, phrases and sentences were either closely connected to the concept of recycling (e.g. reuse, remake, use the old things, collect bottle tops for poor (wheelchair), collect a can, use the thing that you have to make another thing with it, you change old thing to the new) or were examples of what could be recycled (glass, bottle tops, plastic mat and hat) or comments on the positive effects of recycling (It make us clean) or on the negative effects of waste in the environment (kill animals, destroy environment, no papers / bottles in water, HELP), even though this final

category was not directly related to recycling. Below are examples of the written work that the children did with Ms Hall, and an image of her discussing the activity

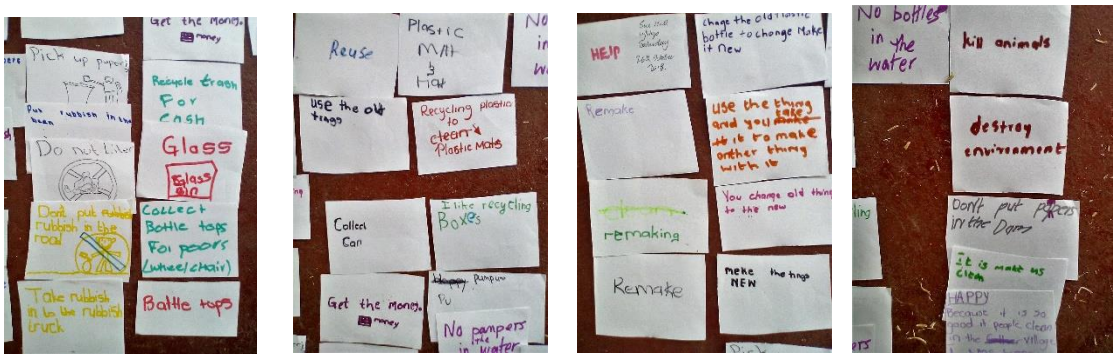

Figure 5.17 Words on recycling by the Litter lions



Figure 5.18 Ms Hall in process drama workshop

5.3.5.2 Process drama

Process drama was used in this project to create a scenario that the children could relate to in a personal and intimate way while engaging with concrete issues within a safe space.

Of Dorothy Heathcote, who initially developed this approach to drama, Wagner says, "…Heathcote begins by building belief; once that is firmly established, she moves towards depth of insight about the experience. Whenever possible, she tries to move the class to a

moment of awe…" (1979, p.76), and this is exactly what Ms Hall did with the participants. The following journal entry describes process drama as defined by Ms Hall:

> *…within the process they [the children] work things out for themselves. It gives them the chance to think and show on the ground. So we build the belief by enrolling characters, using props. The building of the belief is very important, as it is the starting point. It might be the link between awareness and action! So we build a world and just play in character. We need to recreate their real world so that there is not so much distance, we then allow them to practice in a safe space.* (journal, 21st October 2018)

Ms Hall and I then drew up a comprehensive plan to follow for the workshops the following weekend, as indicated in this journal entry:

> *We've put together a plan whereby I will set up the hall to have specific places familiar to the children i.e. school, police station, tavern, soccer club, church. In the centre is a pond with a stream feeding into it. Also in the centre is a pile of collected stuff from which the children can choose, that will feed their specific roles. The roles will be assigned outside in the garden, by Sue, while I am setting up the space.* (journal, 27th October 2018)

Below (figures 5.19 to 5.22) are the planning drawings made in preparation for the workshop.

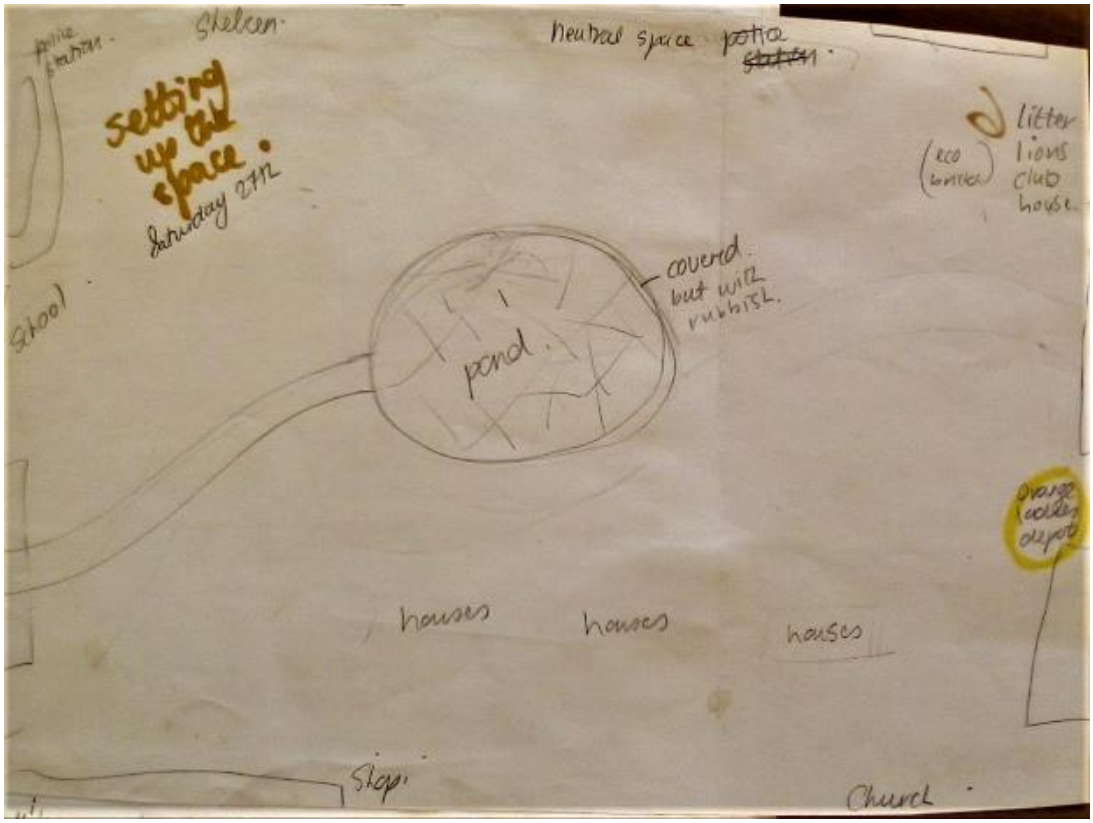

Figure 5.19 Ground plan in preparation for the process drama interventions

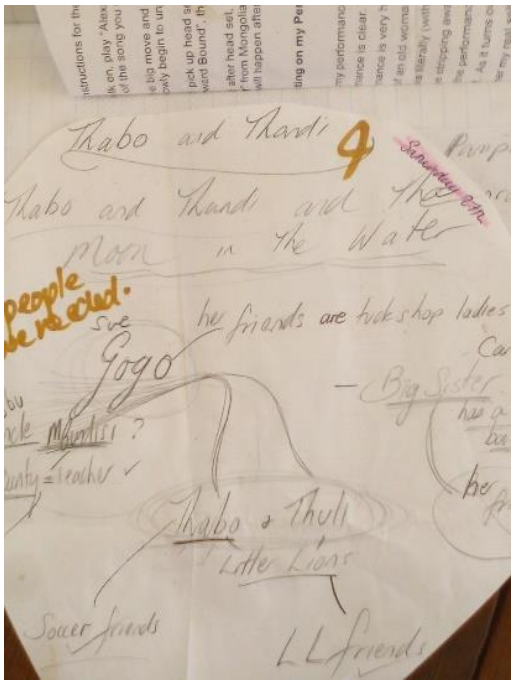

Figure 5.20 Mind map of the characters in preparation for the process drama intervention

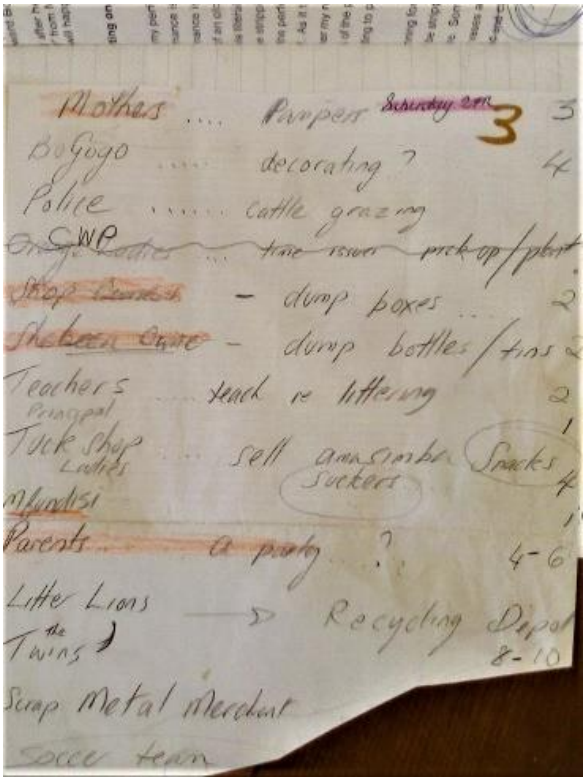

Figure 5.21 List of characters to be allocated to the participants

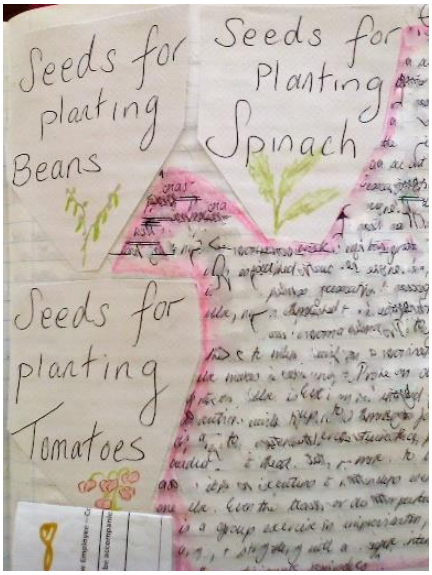

Figure 5.22 Seed packet props

After a short time of free play, Ms Hall told the children a story in the garden. (See Appendix G). While this was happening, I set up the hall. Signage was put up in corners to indicate the specific spaces, and found objects were placed in the centre of the hall. Each child was enrolled by Ms Hall as a member of the community, such as policemen, CWP workers, spaza shop owners, school children and teachers, tavern owners and Litter Lions, all roles included in the story that had been told to them.

The children were then instructed to enter the hall, to find the space relevant to their characters, and to choose appropriate material from the pile of objects available to them. I found myself enrolled as an older sister of the twins, the protagonists in the narrative, who was also a single mother with a small child. I was handed a *doek* (head wrap made of cloth) by one of the 'twins', to wear on my head. Ms Hall enrolled herself as a *gogo* (grandmother) who was ill.

When the children entered the hall they rushed to their 'homes' and then settled in quickly, using the props they had chosen from the pile. Ms Hall then quietly prompted changes which the children embraced wholeheartedly. For example, Ms Hall would suggest that the sun was going down and that night was coming, and all the children then settled in for the night. The crowing of a rooster 'woke' them all up and they continued with the activities of the day. Children went to school, teachers taught, spaza shop owners sold and CWP workers picked up rubbish. Tavern owners sold beer to visitors, one of whom was Mfundisi, the local priest, who was played by Mr Sibusiso Tshabalala, the research assistant. At times Ms Hall stepped out of character as the *gogo* in order to prompt activities.

When the village had settled into a routine after 'a few days', Ms Hall prompted the policemen to call a community meeting to discuss littering and dumping: drinkers were discarding bottles, bottle tops and cans, especially around the tavern; mothers were throwing diapers into the waterways; there was rubbish around the *spaza* shops and the school. The police wanted to close the tavern as one way of controlling the litter, and community discussion around all of these issues was on the agenda. My post-workshop reflection below indicates how the events of the morning unfolded:

The children came forward and spoke in character, in isiZulu. They embraced the process and went with the changes that Sue gave, such as going to sleep and waking up. This helped with setting up the space as 'this is our life, our world and our cycle in life'. She took strain in that she needed to constantly change character in order to prompt individuals so that the play could play out as it were. As much as it was the policemen and the school principal and vice-principal

that were meant to host the meeting, Sue knew that we needed an adult to run it, therefore she needed to change character again.

Important in the process drama were the Litter Lions who not only did not pick up litter but were arrogantly throwing litter down. In Sue's mind the Litter Lions were further down the road towards environmentally appropriate behaviour – perhaps it was false hope that this was so. It would've worked if the houses had had boxes to put their recycling in. Also, the Litter Lions needed to have been enrolled with specific tasks, such as making residents sign for recycling. It is a good question as to why specific children elected to be Litter Lions, because they were not that strong. Significantly, children know about characters such as police, shop owners, tavern owners – but there is no frame of reference for Litter Lions. It is ironic that we missed this entirely!

The CWP ladies in role were excited and were active in role. It made the 'meeting' very interesting. When Mfundisi said: "The CWP ladies are paid to clean," the ladies said: "No! We clean anyway."

If process drama is to work there needs to be buy-in – once there is buy-in there is commitment and excitement. There were huge strides in confidence in the children and this is an aspect of process drama, since the children bought into their roles completely. Also, they are safe with Sibusiso and relate to Sue. (journal, 27th October 2018)

It was interesting to note that the children were entirely willing to believe that the adults in the space (i.e. Mr Tshabalala, Ms Hall and myself), were as much a part of the narrative as they were. The polluted environment was making Gogo (Ms Hall) ill; Mfundisi (Mr Tshabalala) was drinking and contributing to littering, which was even worse since he was a priest; the single mother (me) was responsible for throwing diapers into the waterway. This was clearly disapproved of by the children, and they had no qualms in laying blame where it was due. The results of the 'meeting' were that the police were tasked with monitoring littering and the priest was made to repent, stop drinking and littering.

The following day began with a discussion about what the children had remembered about the previous day's process drama. One child took the lead and provided most of the narrative on this. Other children were encouraged to speak, but the enthusiasm of the boy, who was about nine years old, overshadowed them. However, his comments and insight were enlightening. The following journal excerpt was made in point form, but gives an indication of the conversation nevertheless:

- *Reminding each other of the process yesterday; who was represented and what was represented; then the story of the twins who were sad that because of the litter in the pond, they couldn't see their reflection in it when they went there at night time.*
- *At the meeting the parents didn't agree to work together to clean up the village; the CWP were upset with the parents.*
- *Questioned as to what they liked the most: the tavern, the cleaning, CWP because they were cleaning nicely, the police because they said the tavern must close.*
- *Other things that were seen or done: the granny got better, and that there were things to eat, and flowers, the pastor because he was drinking, the twins telling us about the river, to clean the river, the parents and the pastor stopped drinking.*
- *Sue told the children that her favourite part was the noise of the water at night when the moon rose and it was clean.* (journal, 28th October 2018)

During this discussion the boy who took most of the initiative to relate the events of the previous day made a pivotal comment. He said: "Nothing will ever change unless the parents stop littering". Wagner has stated that process drama searches "… for the precise dramatic pressure that will lead to a breakthrough, to a point where the students have to come to a problem in a new way, to fight for language adequate to the tension they feel" (1997, p.13), and this is what occurred in the final moments of this intervention. The boy's observation was to have a major impact on the course of the fieldwork from then onwards.

5.3.5.3 Process drama performance

By drawing on material from the workshops prior to the process drama workshop, and the process drama workshop itself, Ms Hall devised a series of vignettes that were rehearsed and performed on the last day of the series of workshops, with families and friends invited to watch. Attendance was poorer than at the previous performance earlier in the year, with few family members and some villagers arriving. Other attendees were a group of small boys who had been walking past as we were about to start and who were invited in. Ms Hall began by explaining some of the isiZulu terms used in the performance, so that the non-isiZulu speakers would understand the narrative. The performance then took the form of a variety show, beginning with a dance by one of the older girls who had choreographed the piece herself. The songs that had been written or learned over the past year were interspersed with short plays and movement pieces extracted from previous activities.

Ms Hall's command of isiZulu, rudimentary as it is, was hugely beneficial for many reasons. It allowed her to engage with the children in a more personal manner and also enabled the performance to be presented in the children's home language instead of just English. This visibly impressed the parents and the little boys who attended at the last moment. Despite there being a disappointing turnout, both the audience and the children enjoyed the performance. Comments of congratulations from the adult audience-members attested to this, and the children were upbeat and excited afterwards. Some of the comments included the following:

- "Strong message of anti-waste but fun dancing as well" (adult)
- "You and Sue have done good work. I love the Zulu and the explanation as well" (adult)
- "This was fun Carol. I want to do this some more" (Litter Lion).

5.3.5.4 Reflections on process drama

Ms Hall and I agreed that if only one piece of information was gleaned from an intervention such as process drama then the endeavour could be considered worthwhile. From what the children wrote about recycling, it was clear they knew not to throw diapers into waterways, that they could generate cash from waste, that they should not throw litter on the ground, and that they should reuse and recycle. Yet from the behaviour of the Litter Lions, as part of the scenario built during the process drama, it was very clear that the children had no real frame of reference as to what a Litter Lion is or what a Litter Lion does, besides being part of a club. The other 'stations' had a clear frame of reference and so the children knew how to perform in role, but the Litter Lion station provided no real, concrete frame of reference. Wagner states that, "[t]he child who perceives an entire scene to be strange and outside all previous experience will not be able to get inside it and make sense of it" (1979, p.70, and this was conceivably what had occurred with the Litter Lions' station in the context of the scenario. This meant that more intense work needed to be done if the concept of Litter Lions as champions for our local environment amongst the youth, was to be productive in the long term.

The comment made by the boy regarding the parents and littering behaviour was also extremely important, since it prompted an important adaptation to the study.

5.3.6 Concurrent work with the children of The Potters' Place

Since work with The Potters' Place continued concurrently during Cycle One with work with the Litter Lions, and since the work dealt with the same issues, it is important that this work is

recorded as well. Also, many of the Litter Lions attended The Potters' Place, so this provided a space to build on their experiences. These workshops, too, generated as much data as the Litter Lions workshops did, and made it possible to monitor the school grounds to check if there were any changes in littering practices. This was important since the school grounds were one of the areas identified as being affected by the behaviour of children. During the three weeks that Ms Hall was in Wakkerstroom she agreed to attend The Potters' Place with me. Together we were able to plan and run a range of activities for the children.

At times there were two groups of children, which meant that the interventions were held over two weeks, and at other times I worked with both groups together. Each intervention is described and tabulated separately below. The tables differ somewhat from each other, since there were different objectives and expected outcomes. However, the numbers on the right-hand side of each table refer to the number of responses from the children, in relation to the specific themes that emerged.

5.3.6.1 Response to "What should we do with pampas?"

This activity was aimed specifically at the disposal of diapers, which are referred to as 'pampas' by the residents of eSizameleni. The children were asked the question and then required to respond by producing a drawing. The objective was to encourage them to think about the toxicity of diapers and how this could affect natural waterways when dumped there. Prior to the drawing exercise, I discussed the length of time that a diaper takes to decompose in the natural environment, which is up to five hundred years in a landfill, and the problems of faeces in water.

For analysis the drawings were divided into three categories: those that had images with no written text, those that had some written text with images, and those that consisted mostly of writing. The mainly written texts were from the older children and those consisting solely of images were from the youngest of the children. There was no copying during this activity, as there were two workshops over the space of two weeks, so each child was able to have his/her own table to work at.

Table 5 presents an analysis of 37 submissions, in 24 of which there was reference to diapers, with the rest referring to waste and littering and one not referring to waste at all. There were some interesting suggestions as to what could be done with diapers, such as burying them in the garden to nourish the soil, or telling the mayor to call a community meeting. Whether this intervention could have an effect on behaviour with regards to dumping of diapers in

waterways is impossible to establish, but there is the possibility that at least the intervention caused the children to reflect on the problem. The table below summarises children's responses to the question raised. In the drawings below the table, human actors, behaving well or badly, are highly salient to all but one (Figure 5.26) of the responses, suggesting children's awareness of the interrelationship between people and their environment.

Table 5 Theme: "What do I do with pampas?"

number of drawings	37
unclear response	0
copies	0

drawings and no text		comments
no reference to waste at all	1	
reference to littering, but no pampas	5	
reference to pampas	2	pampas in water with dog eating it pampas in water; people removing it

drawing and some text		
responses to littering and waste	11	no mention of pampas

mostly textual		
put pampas in the bin	7	
burn pampas	2	
bury the pampas	6	one thought that covering them in soil is good for the soil
put pampas out for the truck	2	
politicized response	1	mayor to call a community meeting; put up posters
put pampas in plastic sacks	3	one said to put the sack in the garden
tell parents to stop dumping pampas	1	



Figure 5.23 Image showing children cleaning water



Figure 5.24 Image showing a dog eating pampas, pampas in water, person throwing pampas in water

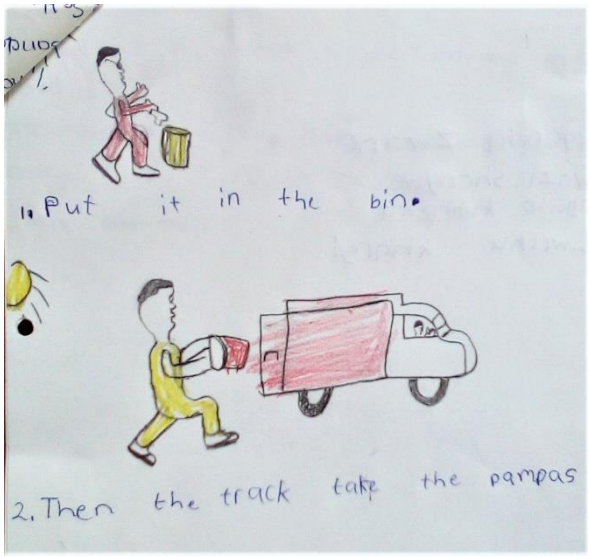

Figure 5.25 Some suggestions as to what to do with pampas

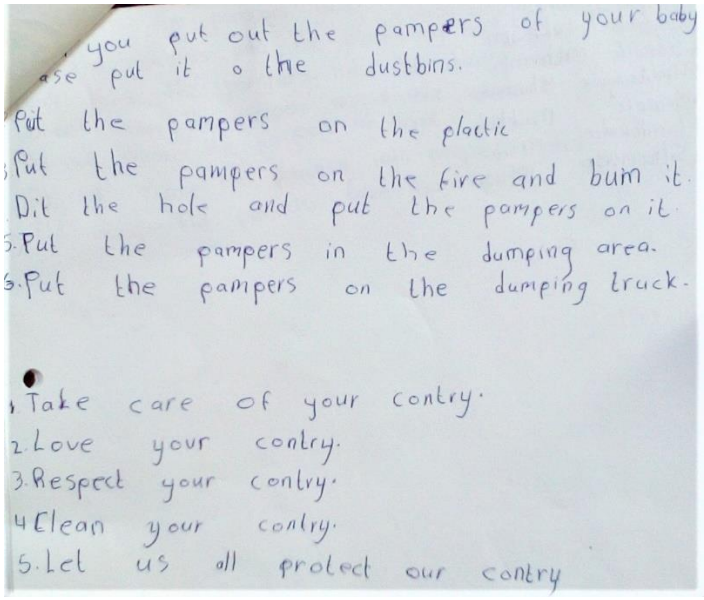

Figure 5.26 Written suggestions as to what to do with pampas



Figure 5.27 Younger child's response to the question



Figure 5.28 Younger child's response showing reference to chemicals

5.3.6.2 Response to "Why do you litter?"

For this activity the children were asked to draw a response to the question: "Why do you litter?" The focus here was on the word 'you' to encourage them to reflect on their own behaviour, rather than blaming others.

Three children responded in the first person, accepting that they are responsible for littering, and seventeen said that people litter because there is no dustbin available. Since I have noted the positions and number of bins at the school, I know this to be untrue. Furthermore, I installed

the swing bin outside the school grounds, next to the Spaza shop where the children purchase their snacks. Five children confessed to laziness being a reason although only one of these conceded that it was him/herself that was lazy.

Below is the tabulated analysis of the responses, followed by two drawings, both by the same participant, in which he refers to himself as responsible for littering. This particular child comes from a broken and violent home, is teased by the other children, and always tries to be the clown. He is particularly bright, which goes unnoticed by his peers since he plays this down. I have included his drawings because he specifically referred to himself as responsible, saying "good S" in the image of himself putting waste in a bin, and "who put the rubbish on the ground: S".

Table 6 Theme: response to "why do you litter?"

number of drawings	36
unclear response	5
copies	0

focus of images	
no dustbin available	17
no pocket	2
laziness	5
wanted to play	1
are not educated	1
I put it in my pocket	2
I put it in a bin/ground	1
I want to be a Litter Lion	1

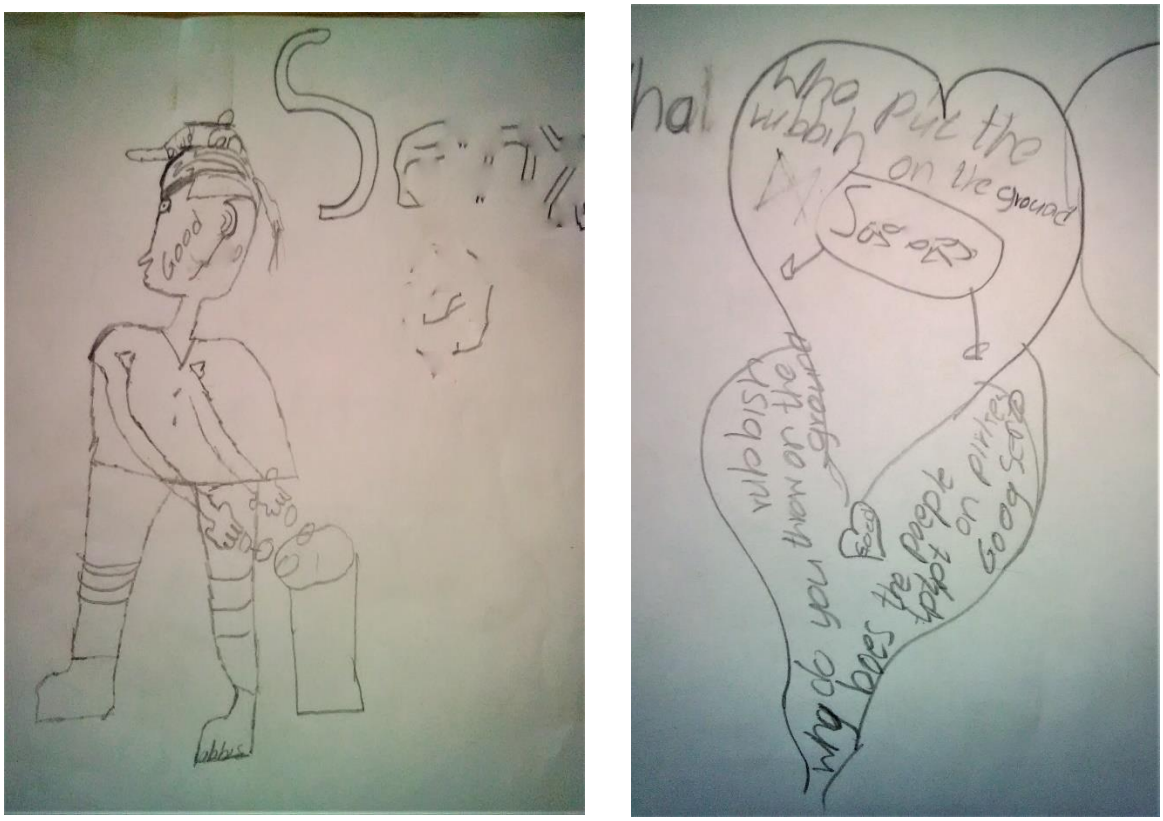

Figure 5.29 Two images showing personal littering behaviour, drawn by the same child

5.3.6.3 Response to "If I know not to litter, why do I still do it?"

This activity was built on the previous one, with the aim of encouraging children to reflect on their actions. That there were seven unclear responses may have been due to a problem with translation, or because these children were reticent to respond to the question. This time there were eight children who confessed to being lazy and six children who said that there were no bins nearby.

Some interesting responses emerged: two children assumed that the problem would be solved by others; one stating 'I want others to sort the problem' and another 'I think workers at school will take it for me…'. One child stated that s/he litters 'because other people throw paper on the ground', a statement that relates to a comment made by an adult interviewee during the reconnaissance phase who mentioned that if an area was free of litter she would not consider dropping more, but if an area was already littered then adding to it was not a problem.

Below is the tabulated analysis of responses to this activity with examples of the images that the children produced below Table 7. In the three examples in which there is a combination of images and writing, the gaze of the viewer is drawn to the downward movement of actors

dropping rubbish. In Figure 5.31 acknowledgement of responsibility for the littering action is in the most salient position while in Figure 5.32, the statement ‘I know better’ is the dominant message, with the excuse (no bin nearby) less visible. The written response in Figure 5.36 suggests that for this child ‘what happens next’ (e.g. getting to class on time) is more important than taking time to find a rubbish bin.

Table 7 Theme: response to "If I know not to litter, why do I still do it?"

number of drawings	31
unclear response	7
copies	2

Responses	
laziness	8
no bin nearby	6
don't listen to the teacher who says don't litter	4
children don't listen	1
I throw down before class	1
ignorance	2
forgetfulness	1
I want others to sort the problem	1
I think workers at school will take it for me because sometimes I see them taking it from the bin	1
even me, I throw paper on the ground	1
because other people throw the paper on the ground	1
we want the world to be clean; we are Litter Lions	1

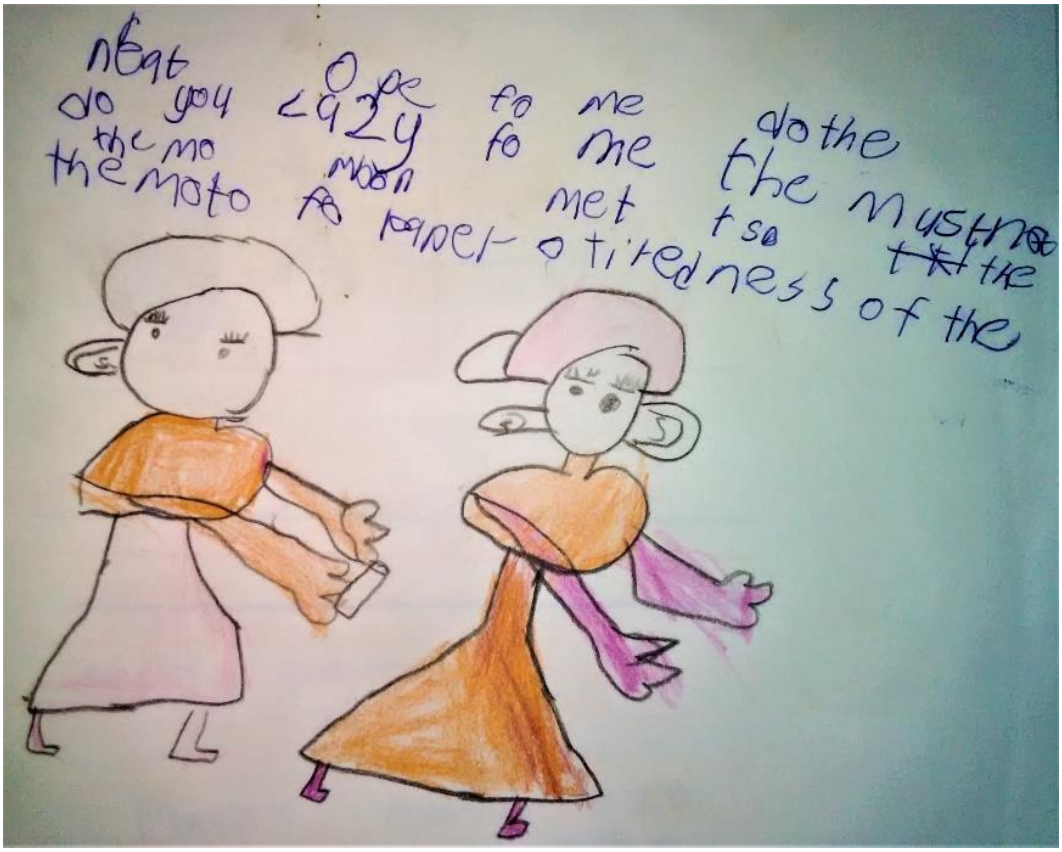

Figure 5.30 Image stating laziness and tiredness as being reasons for littering



Figure 5.31 Image stating that the respondent drops litter before class



Figure 5.32 Image stating that the respondent litters because s/he does not see a bin

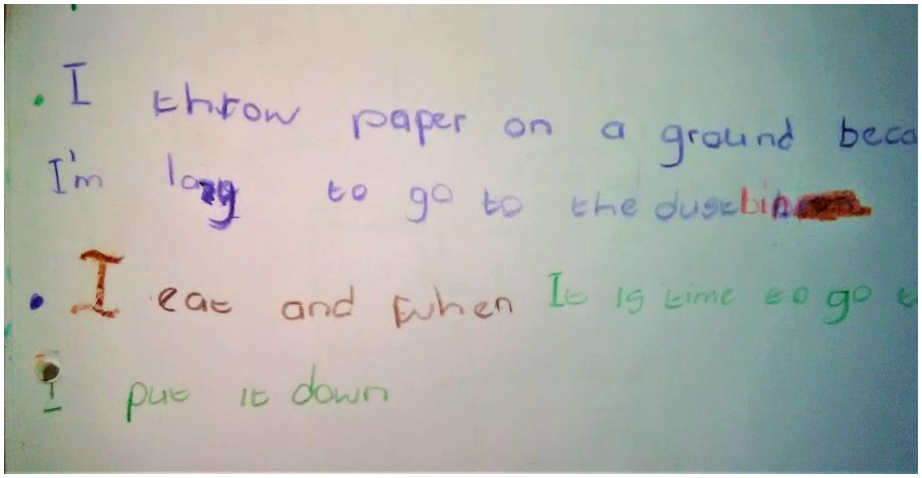

Figure 5.33 Written response stating laziness as a reason for littering

5.3.6.4 Tourism workshop and drawings

Since tourism is vital to the continued existence of Wakkerstroom-eSizameleni, I decided to focus on tourism and the importance of keeping the natural environment healthy at two workshops held over two weeks, with separate groups of children. The first workshop was somewhat challenging for me as my usual translator was unavailable. The next two post workshop journal entries indicate differences in children's responses to the two workshops:

I asked them where they'd like to go touring to and why. Many said Durban, some Cape Town and a few Johannesburg. They wanted to see the sea and to meet new people, so it seemed that they understood the concept of going to a different place to experience something new. I then told them that many people want to come here, but they did not know why anyone would want to. Then when I said: "To see the birds, the vlei and the mountain", it seemed that a light went on. They were astonished at how much money people were prepared to pay just to see the innocuous little Rudds' lark. Then when I asked how it benefits us to have tourists here, I was faced with blank expressions. I then outlined the money that tourists bring in. Then, when I rubbed my fingers together to show the gesture for money, some of them said: "Ker-ching, ker-ching." This was what I'd said and did when I spoke about making money from waste previously. At least this shows that they'd remembered something.

Without a translator it is questionable whether they understood the task, even though I called the BirdLife SA assistant in from next door to assist, since he speaks isiZulu. The results were ok in terms of sweet children's drawings, but whether they grasped the concept is anyone's guess. Some did, however, show images of people throwing litter into waterways, which had not been discussed at this workshop. This shows that they, or some of them, are able to make the connection between littering and clean waterways. It still does not indicate anything about their behaviour.

Chatting to the BirdLife SA assistant in the car afterwards, as he flipped through the images, it became clear that what he had translated to the children was not what I had said in English. I was furious with myself that again, I had presumed that what I said was being accurately translated. (journal, 13th September 2018)

The second workshop was more successful than the previous one, in terms of understanding the concept of tourism and the subsequent drawing task. On reflection:

This group were more engaged and responsive than the previous group. What made it this way? Possibly the presence of a teacher which I didn't have the last time – no, this was not the reason. The teacher was disengaged and I had to constantly draw him into the conversation. Furthermore, I am not sure if he translates what I ask him to – does he understand the content himself?

When asked where they would like to travel to as tourists, this group of children said America, Rwanda, Zimbabwe, Europe, as opposed to the Durban and Cape Town answers of last week. Again, why the broader references?

For the most part the drawings were the same, but this group also indicated an understanding of the cycle of water, i.e. water – clouds – rain (with one showing lightning and hail) – rivers and wetland. This group also added images of the bird hides (journal, 20th September 2018)

The table below includes the drawings from both the groups, since it was the same activity despite there being some differences in the responses of the two groups.

Table 8 Theme: response to tourism workshop; Potters' Place

number of drawings	23
unclear response	5
copies	2

focus of images	
bird hides	3
bird watching	3
landscape	3
international birding hotspot	4
pond with ducks	1
mountain, river, tourist, bus	2
birds + snakes of Africa	1

The responses showed that the children had remembered what was taught to them by Ms Garland during her birding workshops, as was evident in the images of people watching birds with binoculars, and images of bird hides. The children had made the connection between bird watching and tourism. With the exception of Figure 5.36, when children chose to include the information that Wakkerstroom is an international birding hotspot, the positioning of the writing makes this information peripheral to the main communication of people engaging in outdoor activities, with an emphasis on bird watching. While the number of drawings is too small to allow for generalisations, there is some evidence of greater detail in the responses of participants in the second workshop, which may indicate a higher level of engagement, with

the poem also being indicative of this in the poet's use of colour and punctuation to highlight the message.

Below are some examples of the images from the first workshop.



Figure 5.34 Image showing visitors enjoying the natural environment



Figure 5.35 Image showing visitors enjoying nature, including animals, and a mention that Wakkerstroom is an international birding hotspot

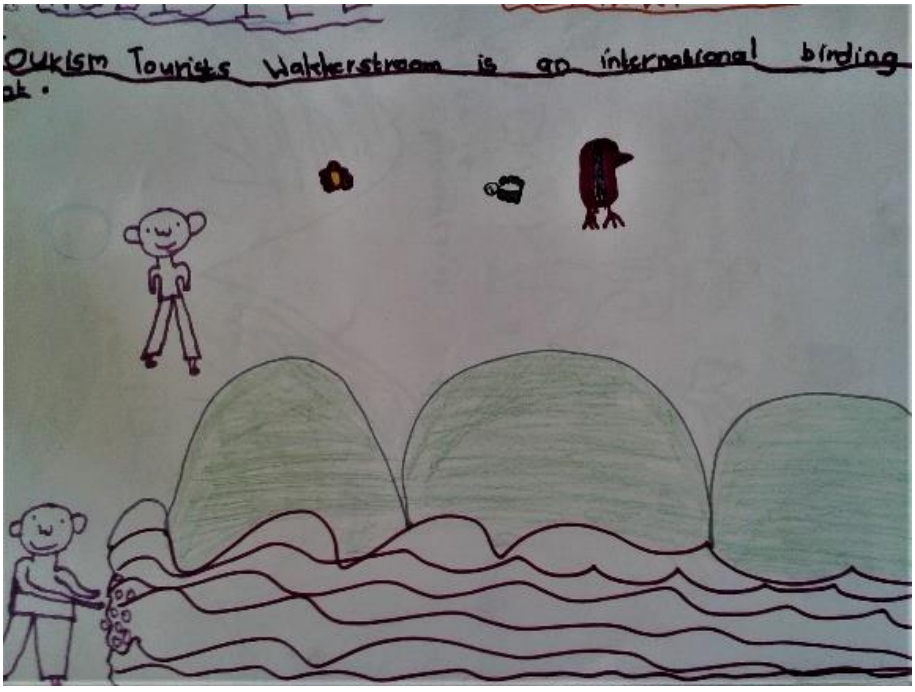

Figure 5.36 Image showing tourists, the vlei, and the mountains, including mention of the birding hotspot



Figure 5.37 Image showing a tourist bird watching

Below are images from the second workshop showing the inclusion of bird hides, Ossewa Kop and one submission presented as a poem.



Figure 5.38 Image of tourists bird watching with binoculars



Figure 5.39 Image of American tourists watching and photographing birds



Figure 5.40 Image of the Ossewa Kop

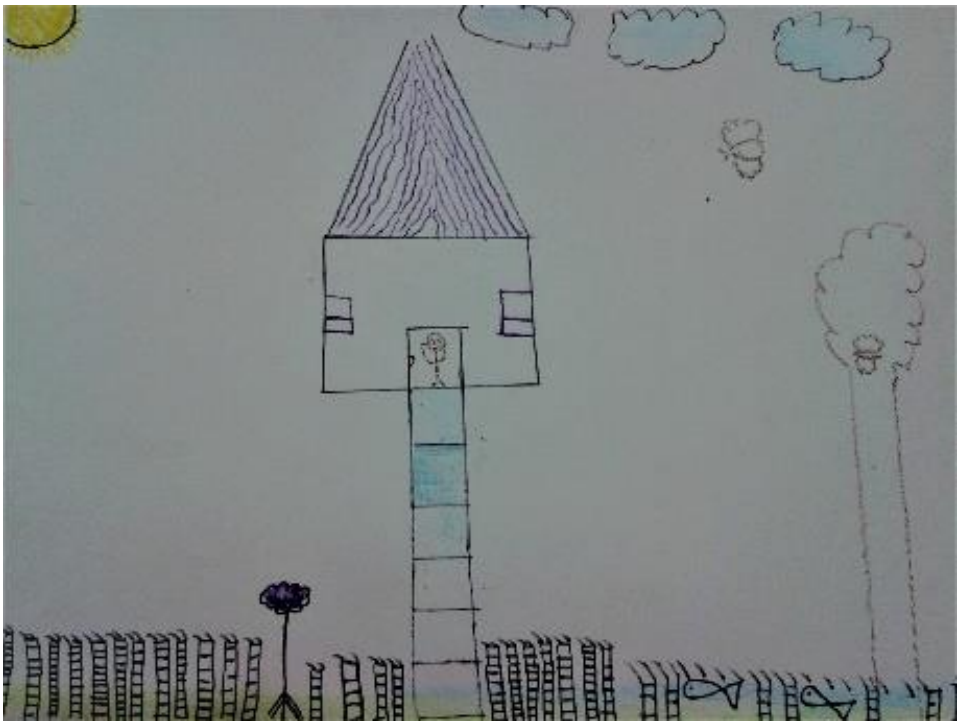

Figure 5.41 Image of a bird hide



Figure 5.42 Image mentioning the hotspot and littering, with tourists getting a helicopter view of the area

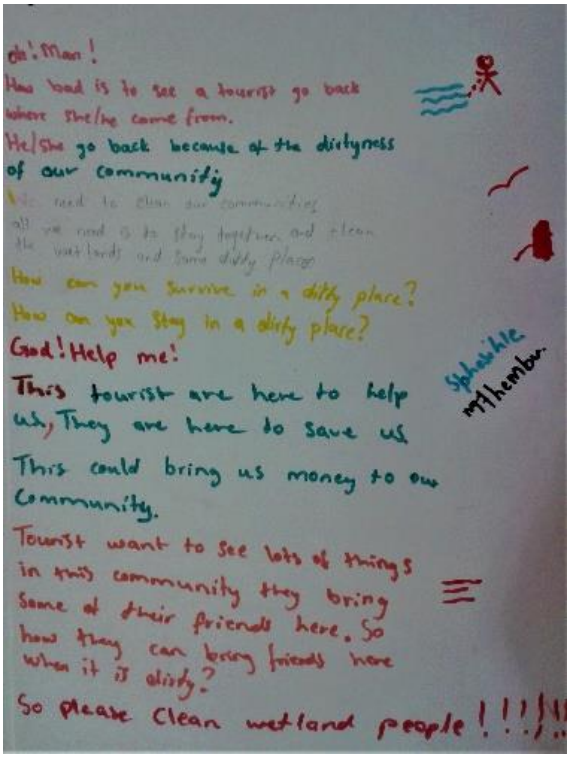

Figure 5.43 Poem response asking to keep the wetland free of litter

5.3.6.5 Soundscapes and story

In order to reaffirm the possibility of generating an income from the reuse of rubbish Ms Hall told the children a story about a young man from eSizameleni who went to Johannesburg. Here he made a living from creating aesthetic sculptures from plastic waste. One of these sculptures was 'discovered' by an international art collector and the young man then became an internationally known artist, who continues to work within his chosen medium. (See Appendix H).

The children were taken into a world of sound where they were guided to imagine the young man moving from his home village, via the various transport vehicles that he used, and finally arriving in the city. The sounds of livestock, pets, children playing and calling to each other, followed by the sounds of taxis and buses, were all made by the children using their bodies, the floor, the desks and any waste material that was lying around in the classroom. This was followed by sounds made by the trolleys used by informal recyclers, and the sounds of gentle rain that developed into a thunder storm, and then subsided to gentle rain again. Next the children were placed in groups and allocated a specific sound, which they were tasked with inserting in the appropriate place in the story. Finally, Ms Hall repeated the story, and the children inserted the appropriate sounds as the narrative evolved.

The children loved the story and embraced the process of making the sounds. They were attentive when the story was repeated and excited when it was their turn to add to the soundscape. When the complete soundscape was recorded and played back to them, their excitement grew.

A discussion was held afterwards, about how Blessing, the central character in the story, was able to generate a living out of waste, and become an internationally-known artist. For the most part the children indicated that they understood this (some were too young), and showed excitement at the prospect of earning an income from waste. Whether there would be follow through with any making of objects, either aesthetic or useful, remained to be seen.

The following week, once Ms Hall had returned to Johannesburg, I asked the children to draw what they remembered from the soundscape workshop the previous week. They were given the option of working in pairs, as I wanted to establish firstly, whether this was possible for a drawing exercise, and secondly whether the children were able to discuss the story and translate it coherently in drawing form without there being conflict about what was remembered. In a post-reflection journal entry I wrote the following:

Some of the children did some lovely drawings, and there was one I especially liked which had a most interesting viewpoint of a train [See the image below]. *For the most part they were able to work in pairs and they were able to negotiate what they were going to draw and who was going to draw what – which was the task."* (journal, 8th November 2018)

Table 9 Theme: response to Blessing's story

number of drawings	16 (32 children divided into pairs)
unusable drawings	0
copies	0

focus of images	
train	11
museum	2
Blessing's art	2
visit to the uncle	2
in the city	1
waste collector	1

Since most of the children drew images of the train, eleven in total, it would seem that the train had the most impact on them. It was disappointing for me that only two pairs of children focused on the art made out of plastic waste, and only one focused on the waste collector.

In this first action research cycle, analysis of children's responses to a number of 'representation' tasks suggests that some enjoy working visually and are able to produce images that are visually appealing (as in Figure 5.44) or that convey a scene vividly (as in Figure 5.45 with young men facing a six lane highway in the city), while others prefer to write a story or a message. The drawing in Figure 5.47, in particular, needs the support of the written story to communicate what the child has understood.



Figure 5.44 Image of the train with interesting perspective

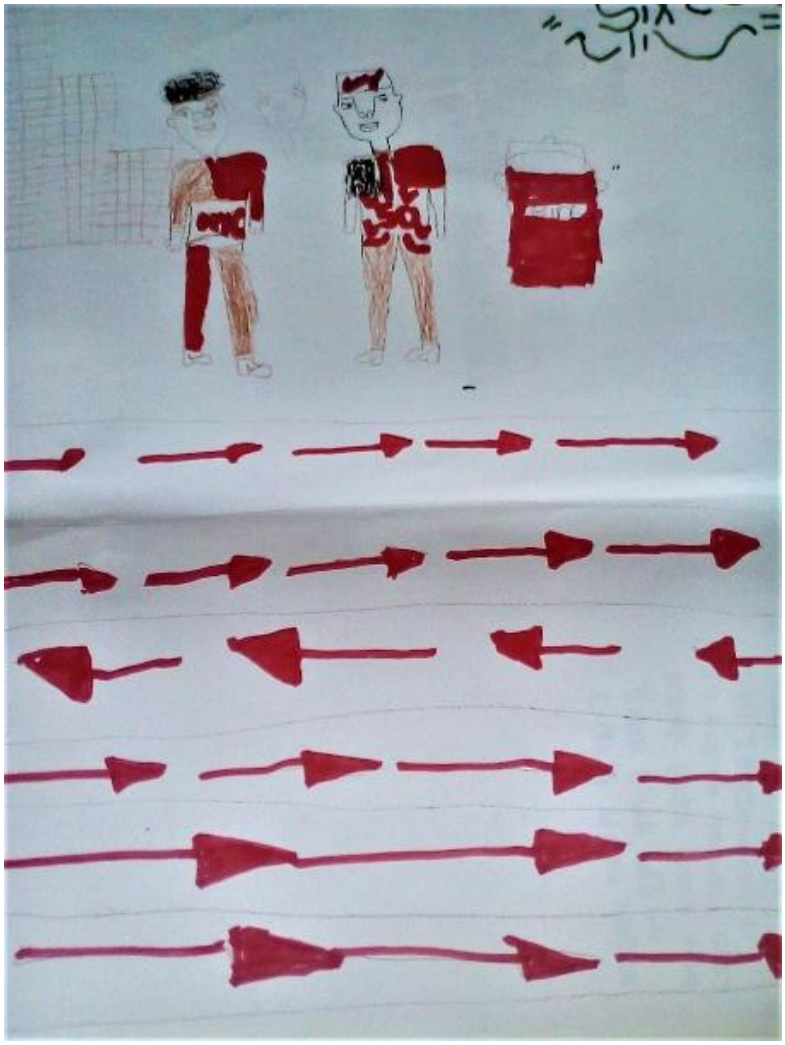

Figure 5.45 Blessing in the city

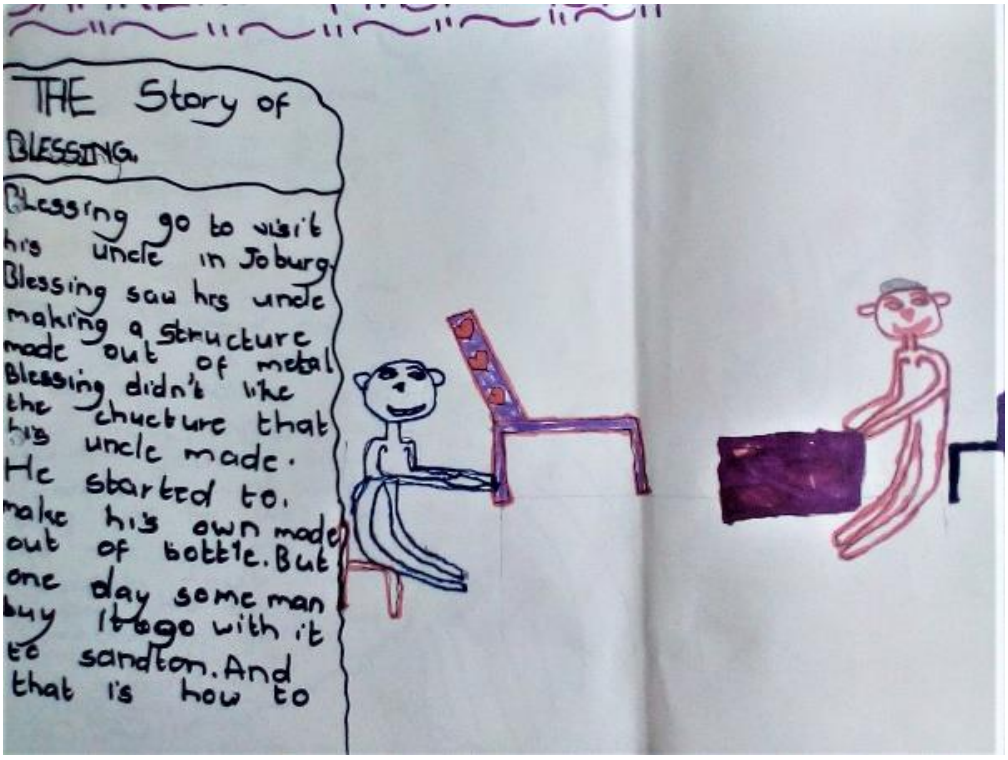

Figure 5.46 Blessing visiting his uncle

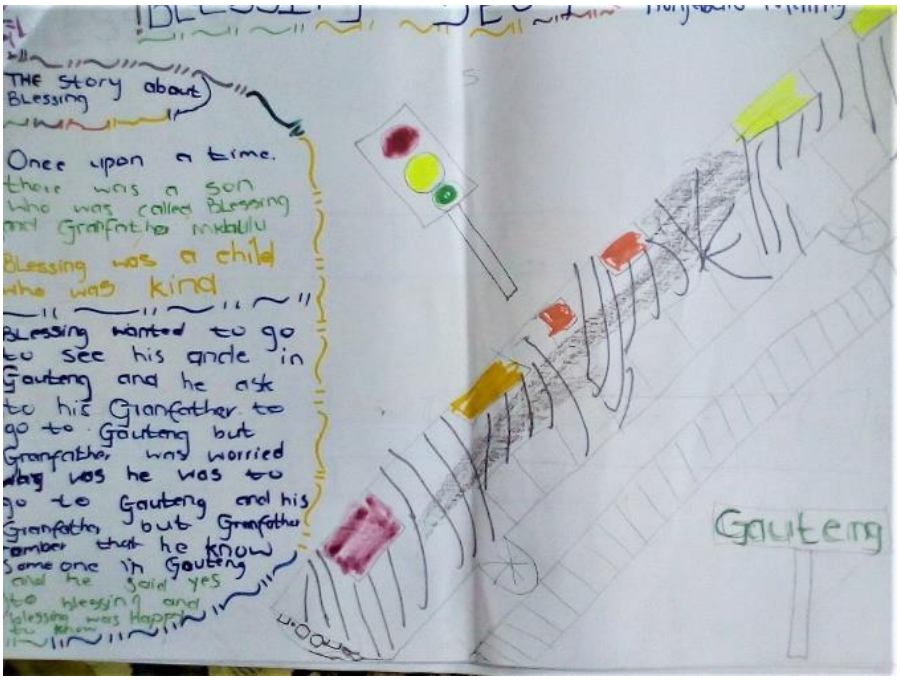

Figure 5.47 Cityscape of Gauteng where Blessings went to

5.3.6.6 Plastic bottle drumming

As a follow up on Ms. Hall's soundscape workshop, I decided to work on a second soundscape using empty cold drink bottles. The primary objective was to demonstrate first-hand how it is possible to create something musical, or at least rhythmical, out of waste. The secondary objective was to guide the children in the creation of a rhythmical soundscape that they would create themselves. This was a relaxed workshop because although its intention was to expose the children to the benefits of reusing waste, I did not want to 'hammer' a point but instead encouraged the children to lead the process. This workshop was held close to the end of the school year, so the children were tired. The workshop was a great success as the following journal entry testifies:

> *Today I took a huge pile of plastic bottles to The Potters' Place. After chatting about Sue's soundscape we had made previously, I demonstrated banging two bottles together, and against various surfaces. Then they dived into the bottles and each took two.*
>
> *What fun they had! We broke into four groups and each group worked on their own rhythm, which we then put together. There was much hilarity, laughter and dancing. The second soundscape was made by banging bottles against walls and bodies, with the same method of different rhythms making up one piece.*
>
> *When we got back to the classroom, I played the videos that I had made, back to them. They were super excited and it was so good to see them so involved and enthusiastic. Finally we discussed what we'd done, besides making a soundscape/video, which was a clear example of the rethinking of empty plastic bottles into making something new and useful. Did they get this last point? How on earth should I know? But* really, really *worth working on some more for Litter Lions in the future.* (journal, 15th November 2018)

The experience for me in this workshop put to mind Harrop-Allin (2011), where she states that "[c]hildren's use of rhythm, intonation, words and dance demonstrates their ability to work across expressive modes …" (p.3).

5.3.6.7 Reading articles from National Geographic

In the following week, in which a second group was scheduled to work on bottle rhythms I was requested to work with both groups together. Because I did not have enough plastic bottles to accommodate all of them, I instead used a copy of *National Geographic* which featured an article on plastic waste. The first image I showed the children was of a white stork wrapped in

plastic. The stork is a bird with which they are familiar from their workshops with Ms Garland. They were able to see the effects of waste on birds, and the image had all the more impact because it was a bird that they recognized instantly.

Other images that they were shown were of a tiny seahorse wrapped around an earbud, a turtle caught in a fishing net and a woman sorting plastic by colour on an Indian beach. These images had an impact on the children, and they showed a marked level of distress when looking at them. An image of children on a landfill had the most effect of all. Whether viewing and discussing these images of environmental bad practice and its consequences could elicit a change in poor environmental behaviour was impossible to establish as was the children's ability to make a connection between the environmental destruction in the photographs and what occurs in their own environment.

However, what this experience highlighted was that planning for interventions, whether for the Litter Lion research participants or for The Potters' Place children, often had to be improvised and is an example of the messiness that sometimes occurs in research endeavours of this kind.

5.4 Learning from Action Research Cycle One

Cycle One produced a wealth of learning experiences, many of which informed the planning for Cycle Two. What I learned has been organized under thematic headings in this final section of Chapter Five.

5.4.1 Participant attendance

I had anticipated a significant dropout rate among the research participants because I discovered during the reconnaissance phase of this research that this had been the experience of facilitators of many of the previous projects in the area. In reflecting on the children's motivation for continued attendance and participation I turned to the eco-feminist literature. Brisson argues that "[i]t seems necessary that we construct an ecofeminist space which is not dominated by wealthy, able-bodied, straight white women" (2017, p.31), and that "[c]ertain identities are oppressed in distinct ways, and it is exactly this reality that eco-feminists seek to address, which necessitates the construction of a movement that prioritizes the marginalized voices" (p.30). These marginalized voices include those of children, and especially rural children. As observed in a journal entry, the attention given to each child at the workshops may have been a factor that contributed to the high level of regular participation:

…I gave a big bear hug to a boy who arrived late, because he looked as if he was expecting a beating, and I told him that I had missed him. After the workshop he wanted a hug again and three other children asked for hugs too. This reminded me of what K had said – that the children crave contact; they are probably not getting it at home and certainly not at school. It's just discipline, beatings (maybe) and who knows… (journal,13th September 2018)

5.4.2 NIMBY

The notion of 'not in my backyard' (NIMBY), was evident in discussions with both children and adults throughout the first action research cycle. The Oxford Dictionary defines a 'nimby' as "a person who objects to the siting of something perceived as unpleasant or hazardous in the area where they live, especially while raising no such objections to similar developments elsewhere". In this context, for example, NIMBY refers to the reticence that people may have when faced with the threat of the construction of a wind turbine or a landfill near their homes. They have no objection to such construction as long as it is not done near them. In the context of this study, it is residents not wanting waste in or near their gardens and homes that has led to the practice of dumping it elsewhere. As long as waste is not dumped in a location near the individual there is no objection to it in an informal dump. This is a practice that occurs across all socio-economic strata of the community. The concept of NIMBY was a focus of my reading in preparation for cycle two.

5.4.3 Political factors affecting the study

In many parts of South Africa, and certainly in this research site, there is limited acknowledgement of the role of past socio-economic policies of the apartheid era in current poor environmental behaviour. Obtaining assistance and buy-in from members of the upper socio-economic strata of the community, both 'black' and 'white', is difficult.

My journal entry for 12th September 2018 attests not only to despondency regarding the possibility of the research project being successful, but also to the magnitude of challenges to be faced:

Behaviour is learned in the home, and it is very difficult to change this despite what is learned at school – there is no connection between what is taught at school and what is observed and accepted as normal at home;

Homes in rural areas are steeped in poverty; many of them are grandmother-headed households, where elderly women take care of any number of toddlers with very few resources; many children have absent parents who go to big cities to earn incomes, some homes are children-headed households with parents having died or absconded;

Aids and HIV are rife but the stigma attached is archaic, so there remains a silence around this, making prevention and cure impossible; unprotected sex continues; teenage pregnancy is common rather than the exception

Teenage girls often fall pregnant on purpose because of the attraction of the child grant that the government provides (R440.00 per child), without understanding that this is still too little to support a child, and certainly won't pay for nice clothes and hair that they think it will;

Corruption is rife in local, provincial and national government; this means that none of the social ills outlined above will be addressed in the near future.

(journal, 12th September 2018)

This journal entry indicates that it is not possible to ignore the issues and factors that create and perpetuate the socio-economic problems affecting the children involved in the study. Schratz and Walker put this succinctly when they write: "Our experience of everyday life is marked by domination and power. If we are to understand it, the structures lying beneath our experience must be made visible" (1995, p.60).

5.4.4 Knowledge-building

Analysis of the drawings produced, and reflection on the performances presented, indicates that the children were able to draw on what they had learned in earlier workshops and to make connections with what was new for them. This retention of knowledge and ability to make connections across topics may suggest that it will be possible eventually to bridge the gap between environmental awareness and environmental good behaviour.

5.4.5 Engaging with adults

As implied in a statement made by one of the child participants in the activities of the first action research cycle, if community spaces are to be clean and attractive, then adults need to show the way. And it is some adults, at least, who have the means to be environmental champions as indicated in one of my journal entries:

The young couple running one of the restaurants said that because of me and what they see me doing with the children, and the knowledge of recycling that I am spreading, they are now 100% driven to ensure that their restaurant is completely green as soon as possible, and that they are committed to help and support me in any way. Their ethic can only rub off on their staff and on the other restaurants in the village. Just shows – I am *making an impact.* (journal, 5th September 2018)

5.4.6 The challenge of attempting to be value neutral

Maintaining personal neutrality during the first research cycle was a constant challenge and care had to be taken in this regard. As Schratz and Walker state:

> Allowing researchers personal concerns licenses them to practice in new ways but also requires them to be increasingly accountable. Once we admit that, as researchers, we hold values that affect the research that we do, we have to find ways to scrutinize our actions and our motives more closely (1995, p.5).

In a self-assigned task, in order to scrutinize my actions as Scratch and Walker suggest, I asked myself the question: "What is it that I bring into the creative process? I cannot be value-neutral." From a body map the answer to myself was the following:

I really am feeling the weight of the colour of my skin. Now in rural South Africa I find myself in circumstances that many people were in when I was growing up: a corrupt, dysfunctional government, who cared less or nothing for the poor and disadvantaged, and an ignorant and blinkered uncaring middle class. Nothing has changed. Except perhaps I *have, at least I hope I have.* (journal entry, 5th September 2018.)

Shulanuit Reinharz discusses bringing various "selves" into the research field. By careful analysis of her own journal entries, she was able to categorize these "selves". She explains

> …how the self actually does serve as 'the key fieldwork tool'. I propose that we both *bring* the self to the field and create the self *in the field*. The self we create in the field is a product of the norms of the social setting and the ways in which the 'research subjects' interact with the selves the searcher brings *to the field* (Hertz ed., 1997, p.3, italics in the original).

Continually trying to consider the self I was bringing into the research site, in order to prevent my values 'infecting' the study, has been a most difficult challenge. As mentioned in the journal:

The important thing is to continually second guess, and second guess the second guesses. The challenge is to know when to stop. (journal, 13th September 2018)

5.4.7 Ethics and the researcher

Working with lower-income groups puts the researcher in a vulnerable position in that there is always the distinct economic difference between the researcher and the researched. Handouts are often requested, and in this first cycle of the research project it was not so much hand-outs that were being requested, but time and space. Often, children arrived uninvited at my home, wanting to play, or just 'hang out'. It was difficult to establish parameters in this respect.

Another hazard that emerged was eco-anxiety. This can be a real and damaging affliction, which has been recognized in psychology for some time. Kelly (2017), notes that "While the term eco-anxiety was introduced relatively recently, the idea that it is based upon – concern about the environment – is nothing new…The term eco-anxiety allows us to express the way in which environmental concern is having unprecedented impacts on personal wellbeing" (p.2). I had tried to protect the research participants against this, but failed to consider myself. Kelly found that it is the marginalized of society (the elderly, children, rural and urban poor, racial and ethnic minorities), that are more likely to suffer from eco-anxiety and have less opportunity of avoiding disaster (2010, p.47). This provided a clear reason as to why I needed to protect my research participants. But with 'global warming, loss of diversity, environmental degradation' being the phrases on many people's lips these days, it is most difficult not to become overwhelmed with distress over the magnitude of the problem. This is even more so if one is working in environmental healing as I was.

Pihkala (2017), currently considered the expert in this field, claims that "[t]here is a grave need to help people to understand the scale and hiddenness of this anxiety …" (p.113), and that "[t]here are various methods that people use to survive the anxiety. The best ways of adaptation are linked to positive action…" (p.114). In my case the positive action in the form of this study was having an impact on me in itself. Focusing on the positive aspects of the work I was doing, such as the restaurant owners' change in attitude to dealing with waste, and the enjoyment that the children were experiencing, despite the lack of evidence of changes in environmental behaviours, became extremely important to me.

5.5 Findings influencing planning for Cycle Two

One of the most significant observations recorded in Cycle One was the comment that a boy made, regarding not being able to change children's behaviour if their parents were still teaching them bad environmental practice. This made sense in that it had already been

established that the children do have a rudimentary awareness of environmental issues as a result of what they are taught in schools. Bess et al's comments are relevant here:

> For children, the first source of knowledge is most often their parents or care-givers. This method of authority is not only used by children but very commonly by each of us when we rely on the knowledge and 'wisdom' of prominent and significant people who are recognized as having a better grasp of their environment than ordinary people. Thus the statements of these 'qualified' people are rarely questioned or challenged. On the contrary, the knowledge imparted by them is usually accepted as absolute (2018, p.1, inverted commas in the original).

The need to consider the adults who are a presence in the lives of the children was reinforced by the socio-economic circumstances in which they live, as outlined in 5.4.3 above. Therefore, in planning for Cycle Two I decided to include interventions involving adults.

A concerted effort was needed to identify an appropriate research assistant. It became more and more apparent that this person could not simply be an isiZulu speaker, but had to be a person who had a specific ability to work with children. It was also decided that payment of some sort needed to be offered as an added incentive in the search for an appropriate research assistant. Mr Tshabalala was a perfect fit for this position, and worked with me for the rest of the study.

Logistical issues needed to be examined for the next cycle. The duration of the Sunday workshops was too long to sustain the concentration of the children. The workshops needed to begin later as well, since it became apparent that many children struggled to arrive on time because of commitments to household chores or church. The agreement to fetch the children from a central point and return them home again after the workshop needed to be re-negotiated.

Soliciting commitment from professional theatre practitioners had become almost impossible. There were many reasons for this, but specifically it became apparent that these companies had to be booked well in advance for there to be concrete commitment. Funding was also a problem, most specifically because many of the companies require some sort of financial contribution towards performances from the children, which could not always be possible. This meant that more long-term planning in this regard was needed, and smaller companies or individuals needed to be considered for visits, rather than larger, more expensive companies, as had been the initial intention.

5.6 Conclusion

The reflections on my learning from Cycle One included logistical and practical concerns as well as ethical concerns, all of which are relevant to both the research participants and the

facilitators. Important too, was the realization that this study could not focus on the children alone, and needed to take into consideration adult role-players in their social environment. This meant that the scope of the study had to be significantly broadened.

A disappointing outcome of Cycle One was that there was little evidence of children making connections between what they know and what they do. The fact that there was still litter dropped on the ground outside and in the gardens of The Bioscope and in vehicles during and after the workshops attested to this.

Chapter Six, describes and discusses the planning and further interventions for Cycle Two.

Chapter six: Action Research Cycle Two



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6.1 Mapping the chapter

This chapter focusses on the second cycle of action research, which took place over the course of 2019. The chapter begins with findings from the data collected and analysed during the first cycle, which were used to inform the planning of the second cycle. This is followed by a description of the interventions conducted during the second cycle and includes the analysis of the data generated by these. Finally the learning gained from this cycle is outlined, and this is what informed the final cycle of the action research for this study.

6.2 Cycle One findings that informed Cycle Two

Four key findings from Cycle One informed aspects of the planning for Cycle Two. Each of these is outlined briefly in this section.

6.2.1 Work with adults could strengthen the interventions

An important finding to emerge from Cycle One was that including adults in the interventions aimed at promoting environmental good practice, both as role models and as enablers of

community activities, could contribute positively to the outcomes of the informal education programme. As noted by one of the child participants in the Cycle One activities, parents need to set an example to their children by not littering. Given the key role of parents and guardians in children's socialization, it was decided that Cycle Two would include some environmental information sessions for adults in the community, with a view to promoting care of the local environment by both adults and children.

While some 'environmental champions' were identified in the reconnaissance phase of the project (See Chapter Four), reflections on the limited successes achieved during Cycle One suggested the potential value of including individuals and organisations who could play enabling roles, such as liaising with local government.

6.2.2 Opportunities for children to be decision-makers

Many of the children who participated in Cycle One activities indicated interest in creating their own performances on an environmental theme. Stein and Newfield state that "… students are *designers* of meaning. Meaning-making is about choosing and assembling resources in relation to individual desire as well as perceptions of audience and context" (2006, p.8; italics in the original). It was decided to incorporate designing, rehearsing and presenting a performance into Cycle Two's programme of activities so that children could demonstrate some of the meanings they made of the content of the informal education programme. I did, however, need to take account of an observation made by Hart (1999): "Many facilitators working with children in participatory projects shy away from establishing any explicit rules for decision-making processes. Fearful of imposing their own structure, they provide no structure" (p.47).

6.2.3 Changes to the structure of the workshops

During 2018 it was found that the children could not sustain concentration for more than two hours, and workshops at times became rather disruptive and difficult to manage when they ran for a whole morning. It was therefore decided to begin the workshops later in the morning and run them for two hours only. This still provided time to conduct a meaningful workshop but also enabled time for the free play that the children enjoyed so much. In a study of play conducted over sixteen countries Singer, Singer, D'Agnostino and DeLong found that "… a lack of free-play and experiential-learning opportunities was eroding childhood. The study indicates that children's major free-time activity is watching television" (2009, p.i). The focus on watching television in free time had been identified as common to the majority of children

in my research site. Burdette and Whitaker state that "[p]lay is the spontaneous activity in which children engage to amuse and to occupy themselves. It is also a way children optimize their own brain development. Viewed from this perspective, the nostalgic observation that children "no longer play" should be taken seriously…" (2005, abstract, inverted commas in the original). Given this connection between play and brain development, it seemed important to include free play in the workshop programmes not just because participants enjoyed it, but also because it was good for their cognitive development.

6.2.4 The political dimension of community-based informal education programmes

The distinction which Janks (2010) makes between big *P* and little *p* politics is quoted at length because of the relevance of her examples to this research project:

> Politics with a capital *P* is the big stuff … It is about government and world trade agreements and the United Nations peace-keeping forces; it is about ethnic or religious genocide and world tribunals; it is about apartheid and global capitalism, money laundering and linguistic imperialism. It is about the inequities between the political North and the political South. It is about oil, the ozone layer, genetic engineering and cloning. It is about the danger of global warming. It is about globalization, the new work order and sweat-shops in Asia.
>
> Little *p* politics, on the other hand, is about the micro-politics of everyday life. It is about the minute-by-minute choices and decisions that make us who we are. It is about desire and fear; how we construct them and how they construct us. It is about the politics of identity and place; it is about small triumphs and small defeats; it is about winners and losers, haves and have-nots, school bullies and their victims; it is about how we treat other people day by day; it is about whether we learn someone else's language or recycle our own garbage … (Janks, 2010, p.188).

My initial intention had been for the research project to be apolitical, but from the outset it was saturated with little *p* politics, and during Cycle Two became infused with local and regional elements of big *P* politics as well. Taylor (2003), claims that as much as "…applied theatre operates from a central transformative principle: to raise awareness on a particular issue" (p.1), he also states that "… sometimes this mission will have a political orientation to it" (p.3). He goes on to write "it is useful to consider the work of applied theatre as a partnership" (p.54), here referring to participants, teacher actors, other stakeholders and the community as a whole. As much as this research project initially hoped to disregard political factors and focus solely on children, findings from the reconnaissance and then from Cycle One suggest that this was a naïve aspiration.

It was for the reasons mentioned above that Cycle Two actively included adults with political agendas within local governance as well as adults from the broader community.

6.3 Interventions

Having acknowledged that the outcomes of the research project might be more successful if adults were included in it, the interventions in Cycle Two were divided into two. These are the arts interventions involving children in line with the original plan for the project, and interventions involving adults.

6.3.1 Interventions with children

All workshops with the children began with warm-up exercises and had a component of free play. The following sections on the interventions are not presented chronologically as they occurred over the course of Cycle Two. This is because many of the activities were revisited over a number of months, or ran concurrently.

6.3.1.1 What is at stake? process drama

Following the process drama workshops conducted by Ms Hall during Cycle One, it was decided to plan another one where issues such as 'staking a claim' and 'what is at stake?' could be explored. This is an important topic in the context of this study, since there are many instances where conflicting entities have a stake in the natural environment. The objective for the workshop was to show, through discussion and play, how various entities have claim to a piece of land, which was presented as also having a body of water on it, and to question which of these entities have more right to the land than others, if in fact anyone has more right over the land than others. Prior to the workshop I set out a demarcated area in the garden of The Bioscope, which was to be used for the process drama activities.

There were sixteen participants in the workshop that day and when they arrived they were taken outside into the garden, where they were led through a series of drama exercises, making shapes with their bodies to form a mayor, a sangoma (traditional healer), a farmer and a tourist, building upon the physical exercise that Ms Hall had taken them through in the process drama activities in Cycle One. The children were then instructed to run randomly and to freeze in a specific shape when a whistle was blown. The objective of this game was to provide an opportunity for them to think about how these specific people would look and behave, as preparation for the process drama. The demarcated area was then shown to them and the concept of 'staking a claim' was discussed. Neither the children nor the research assistant had heard of this concept prior to the workshop.

The children were engaged and excited when they were split into groups according to the four categories of 'claimants'. They were told that they would find their 'homes' in the hall, and that each group was to come up with valid arguments as to why a particular category of claimant should have access to the water. Following this there would be a community meeting where their arguments would be presented.

The children found their respective corners in the hall but also had the opportunity to look at a chart that I had put up. (See figure 6.1.) Please note that the chart initially presented only contained the drawing and the title – the words in boxes were added during the course of the workshop. A pile of bits and pieces of costumes had been placed in the centre of the space, and the children were encouraged to pick out items that would be appropriate for their respective roles. They were then given time to discuss within their groups how they would present their arguments and what specific reasons they would give as proof that they were more entitled to the land than others.

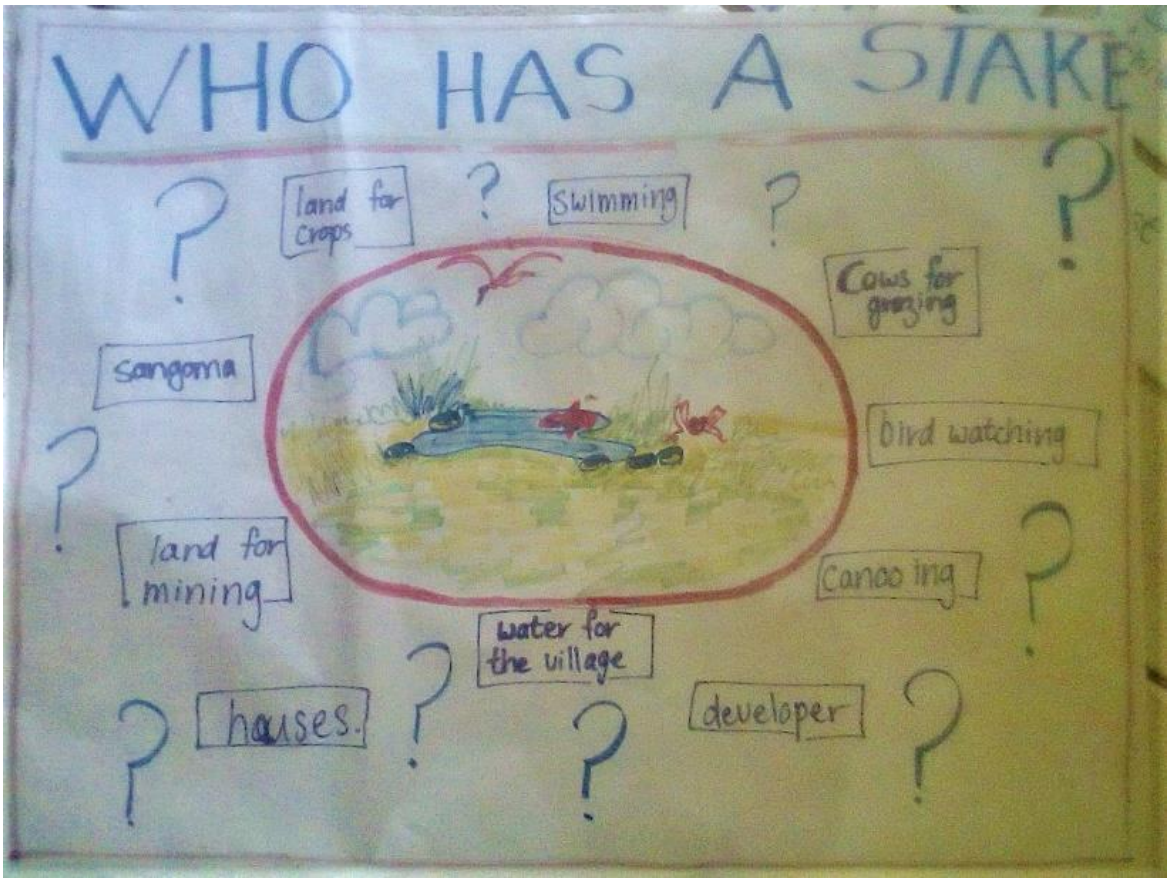

Figure 6.1 The chart that was added to with children's suggestions

A call to a community meeting via a loud hailer brought the separate discussions to an end, and the children gathered in the central space. My research assistant acted as the chairperson of the

meeting and the topic was again outlined. As the children presented their arguments, words were written on cards and allocated to each group. (See figure 6.2). These specific words were added to the chart in accordance with instructions from the children who expressed their views on the most important aspects discussed.

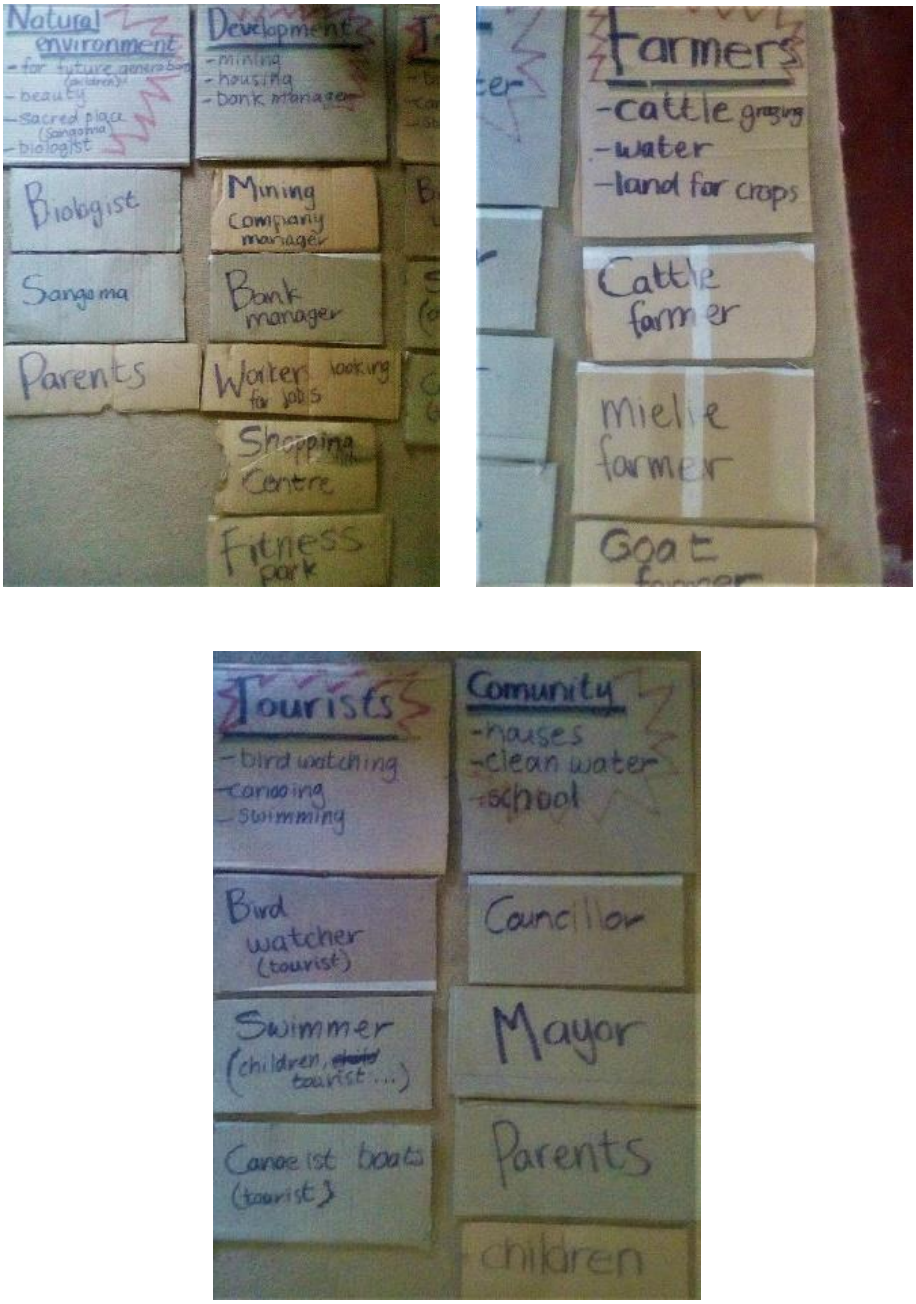

Figure 6.2 Cards with the children's arguments

After each group had been given the opportunity to present their arguments, the floor was opened for debate, with the research assistant acting as mediator. The debate became somewhat heated at times and was difficult to contain, which in itself was exciting as it meant that the children had become absorbed in the topic and had fully embraced the process drama.

The outcome of the process drama was far more successful than anticipated, in that the children were able to come up with many terms relating to the environment as it affected each of the claimants. For example, a sangoma would require the land and the body or water for traditional rituals, or a tourist would want the land to be left pristine for bird watching or swimming. This showed an understanding of how different groups of people make use of natural resources. The heated discussion also showed that the children had a good grasp of the notion of staking a claim and also understood that, once a piece of land has been appropriated, built upon and changed, such changes are difficult to reverse. Much of the discussion was around access to the water on the land and concern about its preservation for future generations. This suggests that knowledge from the work in Cycle One on the value of water had been retained.

6.3.1.2 Desert scenario

Continuing on the theme of water at The Potters' Place the following week, a workshop on a desert scenario was held. What follows is the journal entry made after the workshop:

> *I took the children to the assembly point where I had set out cups against one wall. Some of the cups had a small amount of water in them and some had none. The children were told to sit against the opposite wall, close their eyes and then listen to the scenario I gave them.*
>
> *"We are all in a desert. It's very, very hot. It's lunchtime. The sun is burning our heads. Our mouths are dry. We are dying for just a little bit of water. We are all very, very thirsty. We open our eyes. In the distance we see cups of water."*
>
> *Here they were encouraged to crawl across the space towards the cups. When they arrived at the cups some received water and some did not. There was no more water. We went back to the classroom and I drew a diagram of Martins Dam, Zaaihoek Dam, the vlei, the village, pumps and the proposed pipeline* [this is elaborated on in section 6.3.1.3]. *The children were extraordinarily attentive and were horrified at what was going to happen to our water. I encouraged them to talk to their friends and families about this.*

One of the teachers on duty with me that day, then suggested that we hold a march to the municipal offices. I was astonished and encouraged. This is exactly what could bring the communities together – a common, and very dire problem that will affect us all. (journal,18th January)

The following week at The Potters' Place I repeated the workshop with the second group of children, and this time I was able to concretise the information because there had been no water in the village from the night before. When the children reached for the cups, I prevented them from drinking what was there because the water was undrinkable since when water is interrupted in Wakkerstroom it is muddy for a day or so after it is turned back on again. Again, I drew the same diagrams of the various dams and pumps as I had done the previous week, but this time the discussion took on a different theme:

The discussion surrounded corruption as the cause of the water cut – no maintenance or upgrade of the equipment by the council because the council is bankrupt. The council is bankrupt because of corruption. (journal, 25th January)

In both of these workshops I found that the children were much more engaged in the material presented than they had been in previous workshops at which more abstract concepts were discussed. In other words, here there was specific information that pertained to physical aspects of their local environment, that they could see and understand as affecting them directly. This was important for this study and useful for building upon. As Cohen, referring to the cognitive development of children in terms of Piaget's theory, states: "Around the age of seven, children start to be able to handle concrete operations. They can master some basics of logic as long as they are dealing with the here and now and the practical" (2006, p.45). Further to this, Formanek et al state that "[t]he growing child, interacting with his environment, constructs for himself a picture of the environment; that is, he builds up mental representations of his world" (1976, p.9).

6.3.1.3 Pipeline proposal

To build on the what the children had learned from previous workshops, and taking into account that political factors could not be ignored, it was decided to run a workshop with a focus on the pipeline that was planned between Volksrust and Wakkerstroom. The proposed pipeline would take water from Martins Dam, which provides water for Wakkerstroom, to supply Vukuzakhe, the township attached to Volksrust. Many meetings with the council had

been called by the WNHA, to which nobody had responded at the time of the intervention. The Briefing Meeting Document A on 17 April 2018 drawn up by the WNHA and interested parties, states that:

> On 29 July 2018 the Dr Pixley ka Isaka Seme Local Municipality placed an advertisement in City Press for tenders to build a 29 km long, 26 cm diameter pipeline from Martins Dam - the small dam which supplies municipal water to Wakkerstroom and eSizameleni - to Vukuzakhe, on the outskirts of Volksrust. No further details are yet publicly available and there has been no public consultation regarding the project.

The document also states that there had been no environmental impact assessment done prior to permission being given to proceed with the construction of the pipeline, which began in mid-2019 despite protests from Wakkerstroom residents. The community of eSizameleni was informed by their current councillor that any protest by the 'white' community was counter-productive and racist, and therefore there was resistance within eSizameleni to any formal efforts to halt the construction of the pipeline. The relevance of this information for this study is that it had a direct influence on the planning of the workshop outlined below as it was considered important for the children to be made aware of political factors that were affecting, or could have a severe effect, on the local environment. This decision was influenced by Hart's (1997) argument that "[w]e need children to become highly reflective, even critical, participants in environmental issues in their own communities. We need them to think as well as act locally while also being aware of global issues" (p.5). For Roseland (2000) it is important that communities become aware of what he terms 'natural capital' and its role in 'natural income':

> Natural capital refers to any stock of natural assets that yields a flow of valuable goods and services into the future. For example, a forest, a fish stock or an aquifer [such as the Wakkerstroom vlei], can provide a harvest or flow that is potentially sustainable year after year. The forest or fish stock is "natural capital" and the sustainable harvest is "natural income" (p.78; inverted commas in the original).

Since Wakkerstroom exists and remains functional due to the water in the area, which is then the natural capital, with natural income sustaining the entire village, it is important for children to be aware of the tenuous position of their community. It seemed paramount that the children should clearly understand how the political agenda of the local council could potentially have a negative and long-term effect on the very natural resource that ensures the livelihood of the people in their community. Hart (1999), has also stated that "[w]hen children begin to observe their environment and to also question about why things are the way they are, they may be quickly elevated to a higher level of social and indeed political consciousness" (p.25). And

Randle (1999) urges teachers and other adults to "…enable and encourage pupils to find out about the political dimensions of environmental problems" (p.86).

The workshop began with the children being divided into groups of three. Again they made shapes using their bodies; here though, they made shapes of water in a pipe, water stealers and water pumps. The shapes were then put together to make one system. Next they were given paper and crayons and encouraged to write or draw a response to the issue. What emerged was thoughts on various things that could be done to protect our local water supply and the wetland, which was encouraging to me, since they had not been instructed to do this. On reflection in the journal I wrote:

> *The interesting thing that emerged in their work was their interpretation of pictorial representations of environmental concepts that I'd given them over the past year. Some gave a combination of the water flow diagram that I had done, showing precipitation, run-off, ground water, streams, rivers, dams, vlei and the pipeline. One drawing showed Wakkerstroom, Martins Dam, eSizameleni, the pipeline to Vukuzakhe and Volksrust, plus Zaaihoek Dam. Many children spoke about keeping our water clean, and others spoke about 'what can we do as community members to prevent the pipeline?'* (journal, 28th January)

Once they were finished with their work we placed all the drawings around the hall and I made a colour chart which summarised their ideas. See figures. 6.3 through 6.7 for some of the children's work, a tabulated analysis of these, and the final summary.

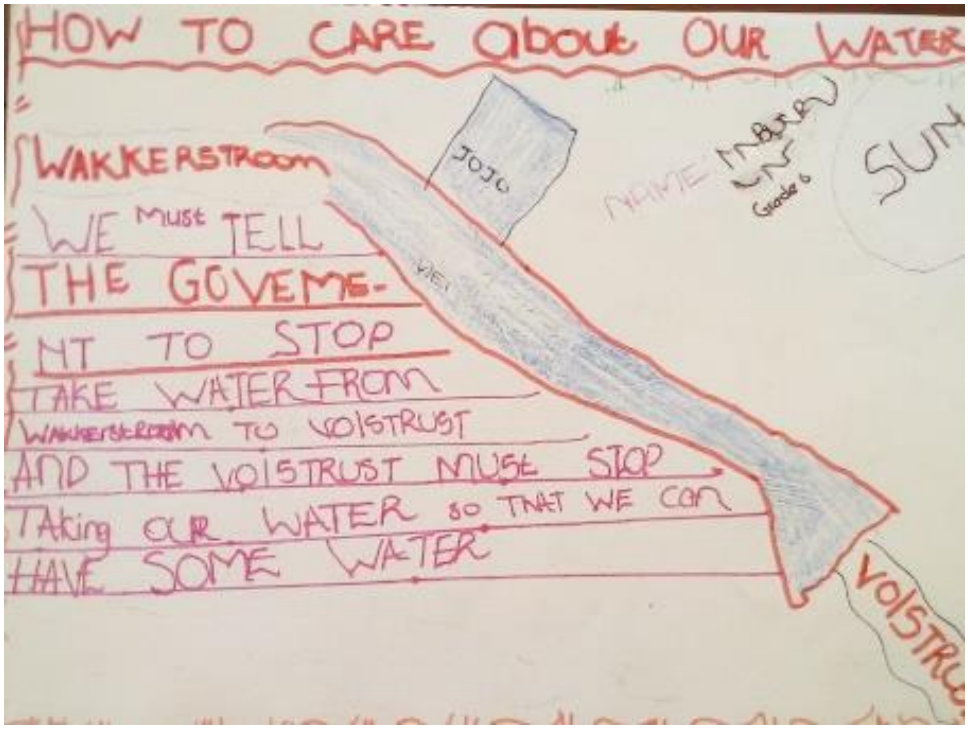

Figure 6.3 Image showing the pipeline and written suggestions

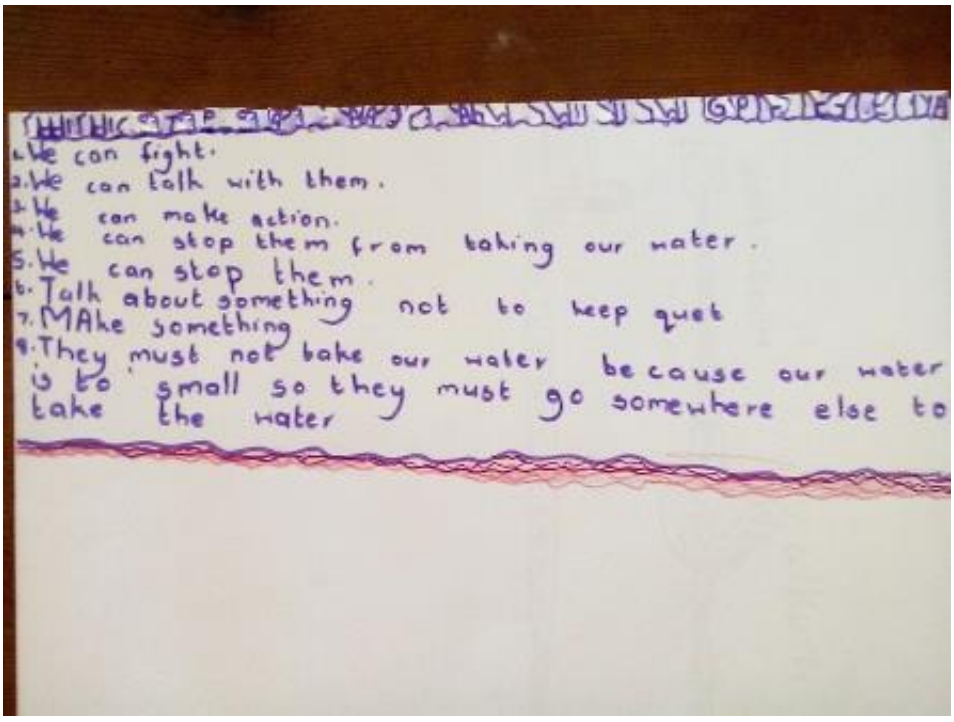

Figure 6.4 Written suggestions

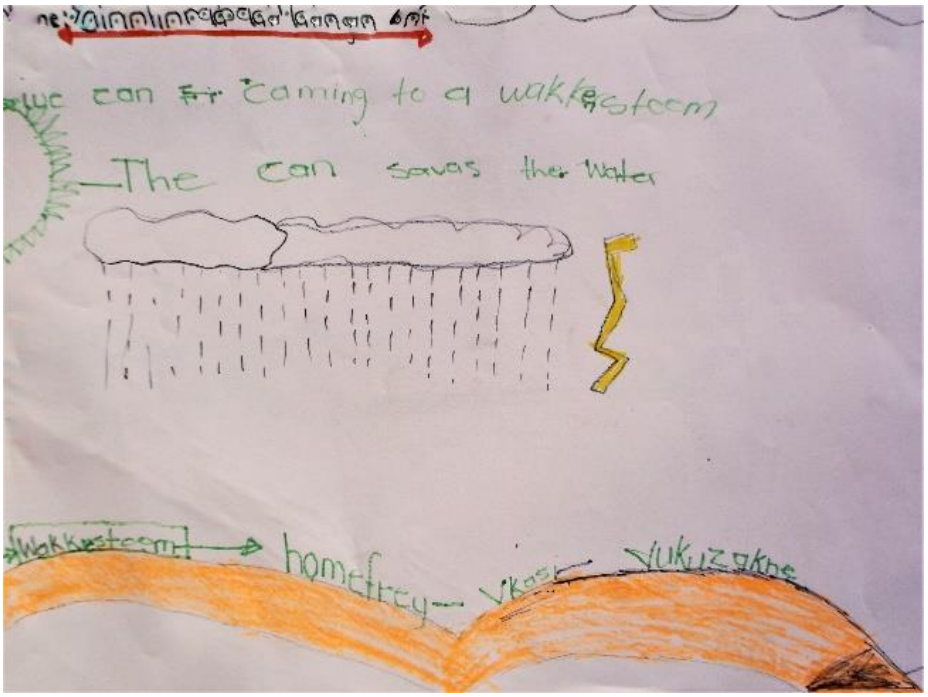

Figure 6.5 Image showing the pipeline and the water cycle

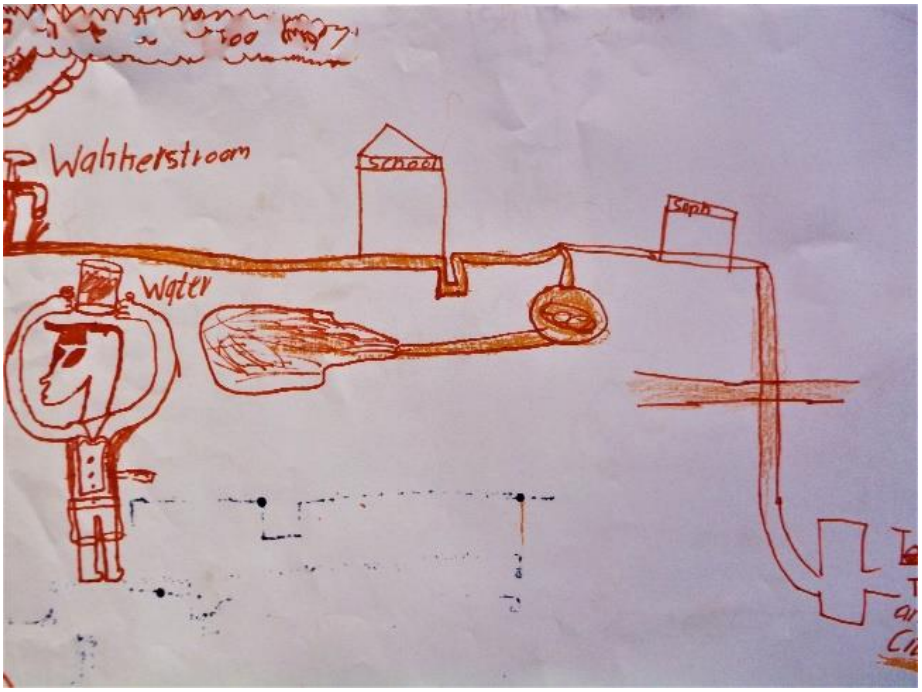

Figure 6.6 Image showing Martins Dam, the pipeline, and water pumped into homes

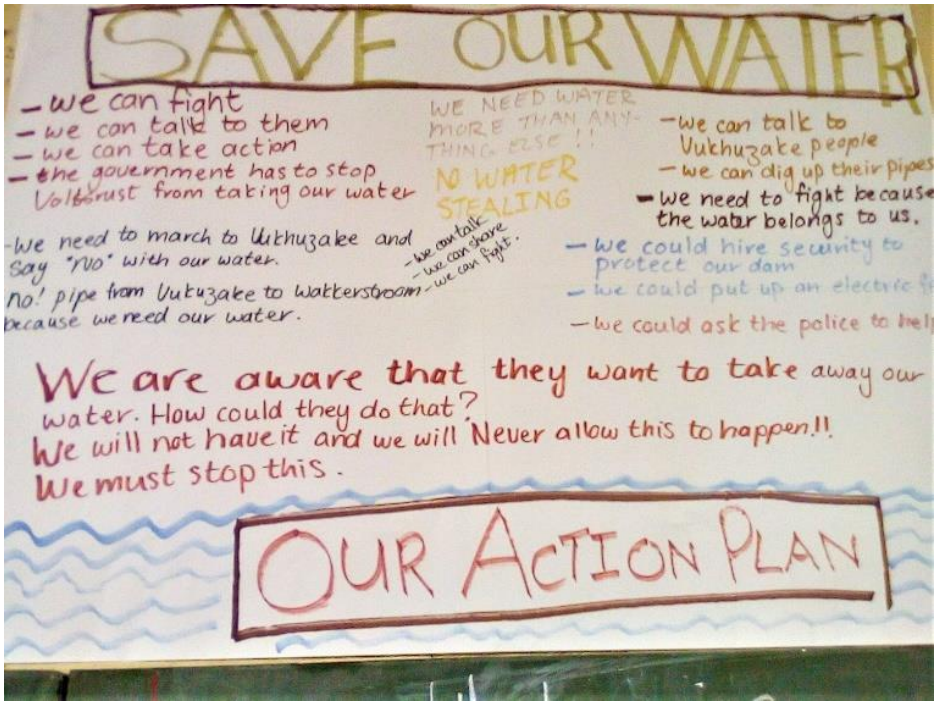

Figure 6.7 The action plan consolidating all the children's suggestions

Table 10 Theme: response to water pipeline issue

num. of drawings:	13
unclear response:	3
copying:	0

drawing number	focus of image
1. image + words	shows connection between eSizameleni + Vukuzakhe
	"let's talk, we can share" (very young child)
2. image + words	houses and the pipeline
	"We must take action! They must leave our water. We won't have it!"
3. image + words	pipeline, cow + person with crosses through them
	"Cattle will die, people will die, no pipe. We cannot live without water" We need to march to Mavuso (councillor) + say no!"
4. words only	1. build electric fence 2. hire security 3. place cameras 4. put dangerous dogs

	5. tell police to help monitor
5. words only	we need water - gives a list of water uses
6. image + words	pipe between Volksrust + Wakkerstroom; jojo tank
	"We must tell the government to stop take water from Wakkerstroom; Volksrust must stop taking our water"
7 words only	"no water stealing" etc
8. image + words	one person facing two people
	"We can talk with Vukuzakhe people we can tell them to stop this we can dig up the pipe"
9. words only	"Fight, talk, take action, stop them from taking our water, tell them to take water from somewhere else"
10. image only	two towns connected by a pipe, includes vlei + tap

In analysing the drawings, it is evident that the children were able to understand the information given to them. The pipeline, the connection between the two villages and the dams that supply water, were all present. Some drawings focused on the pipe, while others focused on ways of challenging the powers that wanted to construct this pipeline. Their responses confirmed my growing understanding of the impossibility of ignoring local and regional politics in this study, and also that it is not necessarily unhealthy to politicise children.

(The communities of Wakkerstroom-eSizameleni did hold a march to the municipal offices. Both the mayor and the councillor were invited to receive a letter of demand regarding the closure of the pipeline project, among other issues. Neither the mayor nor the councillor attended, but sent the local chief of police to receive the letter. Subsequently the pipeline issue went to court and the project was halted, due to the efforts of members of the WNHA committee and two lawyers who worked tirelessly in this regard.)

6.3.1.4 Payment for work

I had experienced some disappointing responses to requests for volunteers to help with various village clean-ups and other activities. An example was a call to a young man to assist with the repair of his mother's home which had been damaged in a hurricane. His response was to enquire how much he was going to be paid for the work. On investigation I discovered that there is no term or concept for 'volunteer' in isiZulu. However, it is important to take into consideration what Hart (1999) has to say regarding time/effort expense for low-income

earners: "[t]he need for communities to learn how to manage their own closed-loop, non-polluting systems of fuel production is most obvious in poor communities, where families spend sixty to ninety percent of their incomes and/or working effort obtaining food and fuel" (p.119). If this figure is correct then it may provide a reasonable explanation for the reticence to work for no renumeration. I decided to run a workshop dealing with the notion of volunteering, but specifically focusing on a clean environment.

After warm up games the children faced the board where I drew a diagram of the following:

WORK → PAYMENT → CASH/SOMETHING ELSE

This was followed by an explanation of the concept of work for no cash, but instead something else that is beneficial, for example, cleaning up the vlei or the village. The 'something else' could be clean waterways or a clean village. We give of our time and our efforts, not for renumeration but for something else that we feel passionate about. I mentioned the work being done by scientists and lawyers who had been working hard to prevent the pipeline from going ahead. They were not being paid in cash but they hoped that their reward would be water for the village. I then wrote the following on the board:

KNOWLEDGE → AWARENESS → ACTION

Here the intention was to extend the concept of 'volunteering' in order to think about what can be done when we know something, and are aware of something, for example a polluted environment, and what can be done physically to bring about improvement. If we take action there can be a positive outcome, even though the reward is not a financial one.

The children were then divided into groups of five. Each group was to come up with a scenario where they would indicate understanding of the notion of working for something other than for payment. They were given time to develop their scenarios and to rehearse. Each group then presented their scenario to the rest of the children.

All five scenarios dealt with subject matter that had been covered in previous workshops. This was disappointing because I had hoped that the children would be able to apply the concepts to new issues, yet it did show that there was an understanding of the environmental issues that had been presented to them previously. The important thing is that the children understood the notion of work for reward other than cash. Two examples of the scenarios are provided below:

Scenario 1: two people discover that the waterway is blocked with litter. They ask their friends for help to clean it up. The friends want to know how much they will be paid to help, and they are told that they must help without payment because 'we need clean water'.

Scenario 2: a boy visits friends who are sitting at a tavern/home, where he tells them about the proposed water pipeline. He asks them to come with him to court, but he also tells them that they have to work for free. The friends leave, with disparaging remarks, but the boy goes to court anyway.

6.3.1.5 Crisp packets and letters to the president

For this intervention the children were taken through a series of exercises where they used their bodies to make rain, wind, thunder and lightning. From there they formed a vlei with water life in it, a dam, a river going to the sea, using all their bodies together. This was a fluid exercise, where children were encouraged to improvise. When instructed to become a dam, for example, they were to use their imagination, and become any aspect of the dam that they wanted to. It was exciting to see them working together and where one became the water, another would become the bank, with yet another playing the part of a frog jumping from the bank into the water.

Next the children were given a packet of crisps with their cold drink, and were told to keep their empty packets. There were two reasons for this – firstly the empty packets were to be used as part of the workshop, and secondly, I wanted to see if any of the children dropped the packets on the ground afterwards. After the cold drink break the previous exercise was repeated, but this time with specific groups becoming the vlei, the dam, the river and the sea. Others were a thunder storm with rain, lightning, wind and thunder. Three oldest children were then assigned to be the empty crisp packets. As the wind blew, the packets went into the air; as the rain fell, the packets went into the vlei, then were washed into the dam, then into the river, and finally into the sea. There the packets were eaten by turtles, who then died. The game was chaotic, with seemingly no structure and direction, yet in retrospect it was successful in that the children had a good time and were most attentive when, afterwards, I repeated three times to them: "If you drop a snack packet, I promise you, it will end up in a waterway and maybe even the sea, even if it is far away from you." However, despite the attention they gave to the process there was no changed behaviour with regard to dropping crisp packets.

At the time of this particular workshop Mr Ramaphosa, the President of South Africa, launched his anti-litter campaign. Using my cell phone, I showed the short video clip of the launch to

the children. When I asked them what they thought we, as a small village in Mpumalanga, could do as part of the president's campaign, there were a number of suggestions. One child suggested writing letters to the president and issuing a challenge to the rest of Mpumalanga. This was that our village would be the cleanest in Mpumalanga in one year's time, and this was unanimously agreed upon. I handed out paper, crayons and pens and the children wrote their letters.

This workshop taught me much. The children were able to come up with their own ideas about how to contribute towards the president's campaign and were also able to come to an agreement in choosing one idea and running with it. It was also exciting to me to experience how a workshop can take a sudden and different direction to what had been planned.

The other important point that I took note of was that it is erroneous to base my attitude to any workshop on how I feel straight afterwards, and that subsequent reflection and conversation is vital. Although reflection had been a specific part of the research methods from the outset, there were moments when I needed to relook at what I had recorded directly after the intervention, and re-record, so to speak, what I remembered. The reflective process then became layered and richer. Often a post-reflection reflection was needed, and more insight was gleaned as I was able to step back and view the events with less emotional involvement. As Taylor (2003) so succinctly puts it: "The most effective facilitators are able to reflect on the kind of teaching artists they are and the possible ones they can become", adding that "[r]eflection, though requires distance" (p.71). The later development of my role as what I term the *Inside I* is what allowed me to begin to include this distance. During the subsequent week I couriered the children's letters, with a covering letter of my own, to the president's office. I followed up with an email to his personal assistant. Disappointingly there was no response either from Mr Ramaphosa or his personal assistant, neither was I able to establish if in fact the envelope with the letters arrived at the correct place. This became an ongoing embarrassment for me in that I had to constantly tell the children that there was no response. Eventually, we had a discussion around possible reasons for the lack of response. In the discussion the children brought up corruption and lack of interest from political powers, and subsequently, and understandably, lost the impetus to follow through with their challenge. Figure 6.8 show some of the children's letters and drawings.

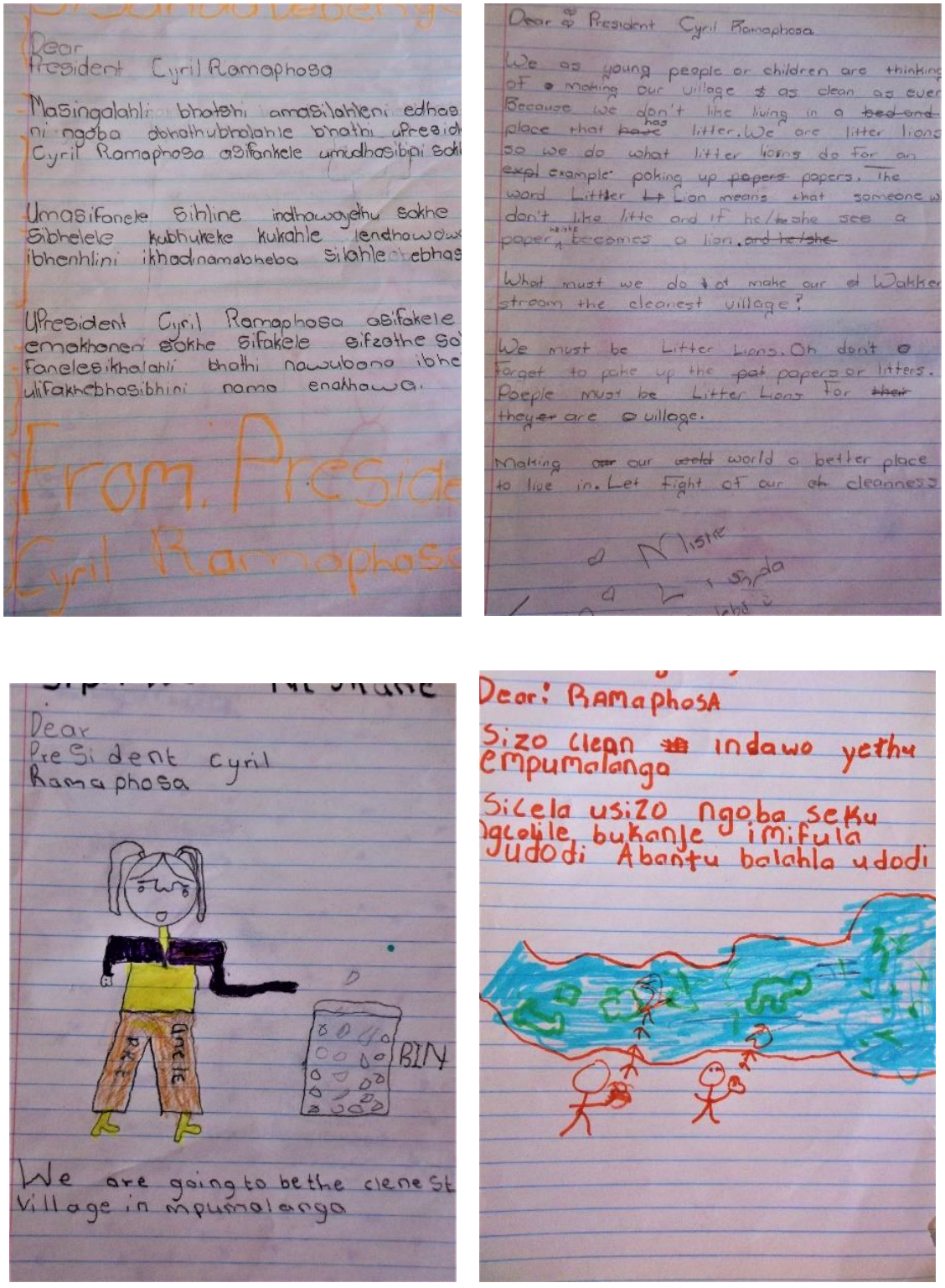

Figure 6.8 letters to the President by the Litter Lions

The letters and drawings revealed some of what the children had learned from the Litter Lion workshops so far, in that they spoke about the need for a clean environment. Of interest was that they came up with corruption and lack of interest from political entities by themselves,

which showed that they have some understanding of the broader implications of these socio-political challenges that South Africa faces. Also of interest was the choice of some children to address the president in their primary language.

6.3.1.6 Response to "If I have a snack packet and there is no bin, what do I do?"

In continuing with the theme of personal responsibility for littering, I asked the children to respond graphically to the question "if I have a snack packet and there is no bin, what do I do?" The objective here was to establish if they knew what alternatives were available for them if there was waste at hand but no dustbin nearby, also to establish if there were any new alternatives that the children could think of. Below is the tabulation of responses, with an analysis below that. The numbers on the right hand side indicate the number of children making a particular suggestion.

Table 11 Theme: "If I have a snack packet and there is no bin, what do I do?"

number of drawings	35
no response	8
copies	1

Responses	
put it in my pocket	11
put it in my bag	19
burn it	6
put it in a bin	24
take it home + bin it there	4
ask for directions to a bin	1
tell the mayor	1
instructing someone to put it in his jersey	1
reuse it to make a mat	1
I will throw it on the ground	1

The non-responses were those that showed no response to the question and were therefore not included in the analysis. Many children gave a number of suggestions in their responses and these are all tabulated accordingly. Twenty-four either drew themselves binning the packet or stating that they would throw it in the bin, when the question was what they would do if there was no bin at hand, and it is likely that these children did not understand the question. Thirty-

four indicated that they would keep it in their pockets or bags, with most of these 'saying' that they would bin or burn it when they got home. One child said that she would ask for directions to a bin, which was innovative, while one image showed the respondent instructing another person to put the snack packet in his jersey, presumably jersey pocket. One child suggested telling the mayor about it, and one child confessed that he would throw it on the ground. Below are some examples of the drawings. In this set of drawings several children used speech or thought bubbles (with some confusion between the two) for the first time – perhaps indicating that they had been taught about these at school or perhaps because they had encountered them in comic books. Their use of these indicates awareness of an alternative way of making a personal response to a task instruction. With the exception of Figure 6.13 the figure(s) is 'centre stage' positioned as responsible for the action to be taken.

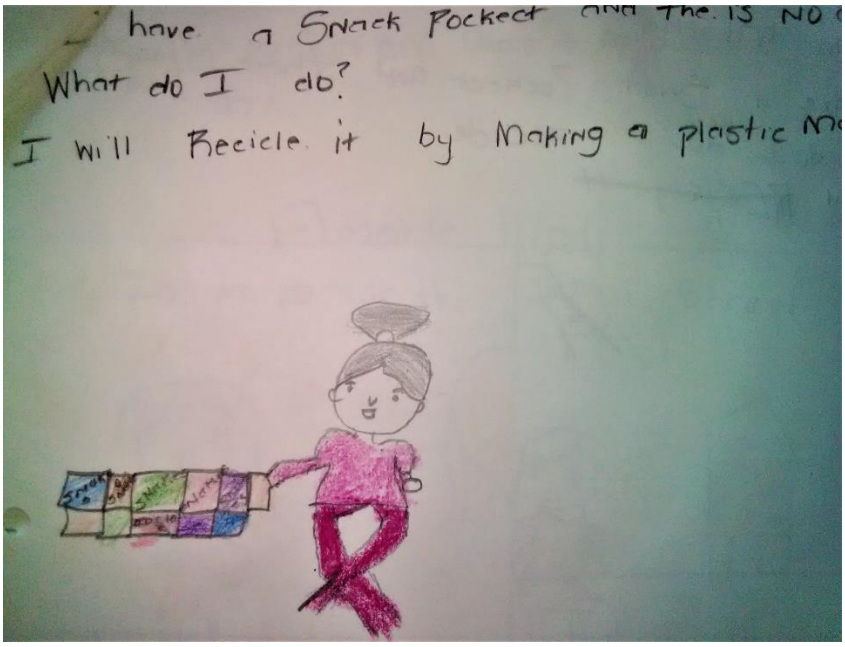

Figure 6.9 Image showing the reuse of plastic to make a mat

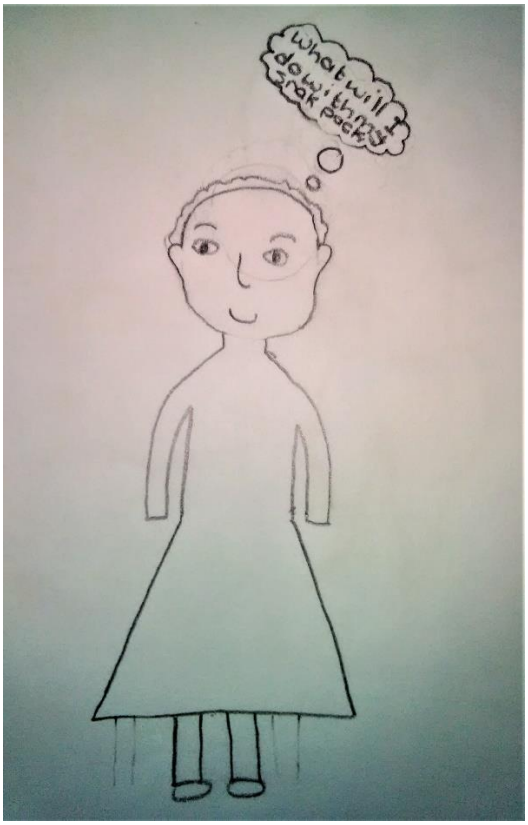

Figure 6.10 Image showing a thought bubble

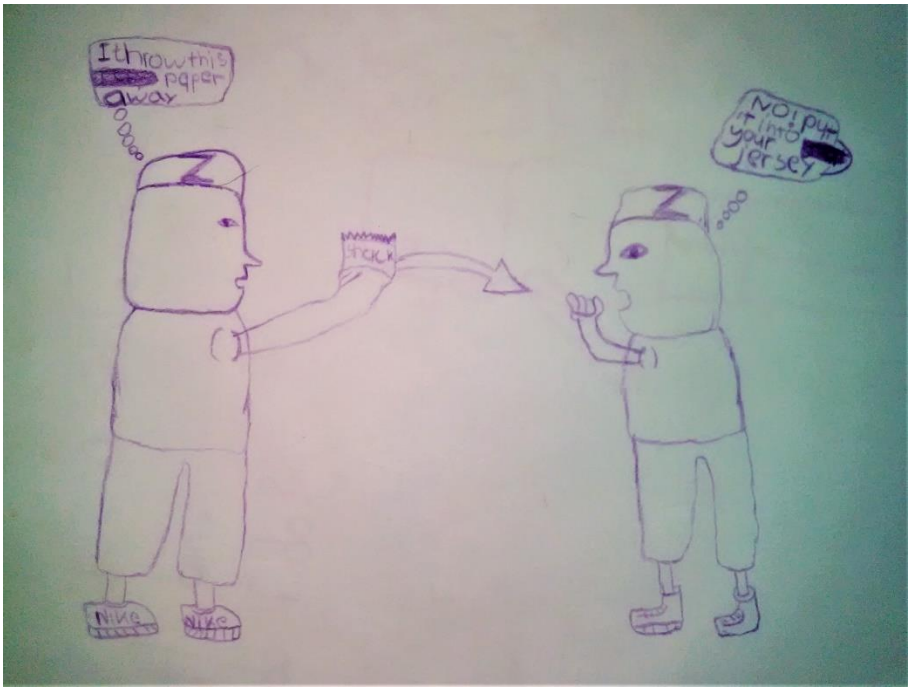

Figure 6.11 Image showing one person instructing another to put the packet into a pocket

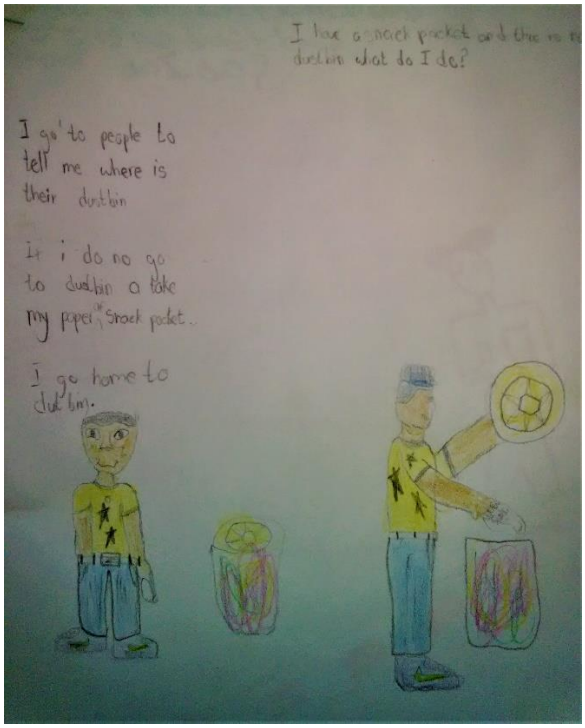

Figure 6.12 Image showing person looking for a bin



Figure 6.13 Image showing person putting the packet in a bag

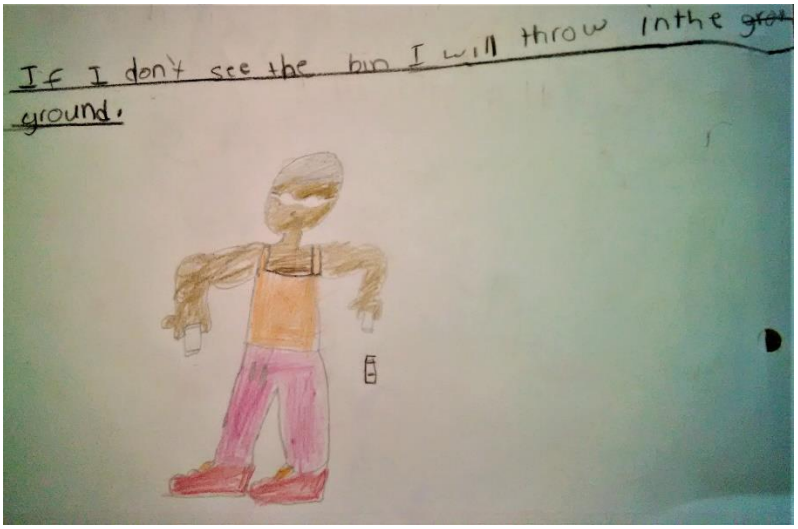

Figure 6.14 Image showing the person throwing the packet on the ground

The most important data that emerged from this intervention was from the two children whose responses differed from the others. I was most encouraged by the child who stated that she would reuse the snack packet to make a mat, and I was impressed by the child who said that she would ask someone to tell her where she could find a bin. However, the most poignant response was from the child who confessed that he would throw his snack packet on the ground, and this is relevant because it was this specific child who eventually emerged as a champion of the environment as a result of this study. Not only this, but he was honest about his littering habits, where others were conceivably paying lip service.

6.3.1.7 Rod puppet story telling

Since I have experience in puppetry, and considering how much the children had enjoyed making paper bag puppets in Cycle One, I decided to use a rod puppet to tell stories to the children. My objective was to establish if it was possible for children to absorb information through a simple story, using one puppet.

The story concerned the "Tops and Tags" wheelchair programme that runs in Wakkerstroom. Usually the bottle tops are sent to a location removed from the communities that collect them, and there is little connection between the collectors and the recipients of the wheelchairs. It was for this reason that I specifically sourced a similar programme to the national one, but one which enabled me to identify a disabled person in the local community to benefit, instead of someone far away. During the course of the year enough bottle tops had been collected for a wheelchair to be allocated. The process included sourcing a disabled person who needed a

wheelchair, taking the person and the bottle tops to Newcastle where the handover was to take place, and participating in a photoshoot for the local newspaper. I decided that it was important for the children to see first-hand what can be achieved through voluntary efforts, such as collecting bottle tops.

The rod puppet used to tell the story is a small puppet called Mr Mouse, and the story was titled *The lunch box boy*, which has as its theme the small things that one person can do, (such as collecting bottle tops) that can have a big impact (such as providing a wheelchair for a disabled person); an impact that can have long-lasting effects. (See Appendix I).

The children love the puppet, and I am tempted to say, love the story-telling. (I wonder if this is because they are so infrequently exposed to the arts such as puppetry, and do not have stories told to them – interesting question). Once I had finished, they broke into applause, which really moved me. (journal; 28th August, 2019)

After the puppet show a photograph of the woman who had received the wheelchair was shown to the children. Unbeknown to me she turned out to be the grandmother of one of the children, and this made them excited. The children were then shown on the board a diagram of a bottle top, a pile of bottle tops and a wheelchair, in order to reinforce the message. They were encouraged to collect bottle tops towards the next wheelchair.



Figure 6.15 The recipient of the wheelchair and the bakkie-load of bottle tops

The following week they were asked to present any tops they had collected. Many of them, mostly girls, had collected tops during the week. The following journal entry outlines the course of the subsequent activity:

I began by holding up a single bottle top. I then asked them what they remembered about these tops. One of them replied saying that I had asked them to collect them for wheelchairs. Then I asked them what the connection between bottle tops and wheelchairs is. Some thought that wheelchairs are made out of recycled bottle tops. I redid the drawing of the wheelchair and the process involving the bottle tops and the recycling company that doesn't give cash in exchange but gives a wheelchair. (journal, 5th September)

On a subsequent occasion when I asked if any of the children had collected bottle tops towards the wheelchair project, a number of them came forward, again mostly older girls. What followed was enlightening as it indicated little understanding of reuse with regard to the cold drink bottle tops Instead, the children saw collecting bottle tops as a competition to see who could collect the most, as the following journal entry shows:

I asked them what they thought would make me the happiest. "If we found lots of tops" they said. "No!" I said, "Actually I would be happy if you found no tops, because this would mean that there was no more littering."

This is a constant challenge – they think that when I ask them to collect a specific item of waste, that it is a competition. As much as I try to show that this is an amount of reusable/recyclable waste that doesn't go into a landfill for hundreds of years, and is instead put to better use, they still think it is a competition. This is a mindset that is difficult to change. (journal, 12th September 2019)

Here I needed to remind myself of what Formanek et al write, when they state that:

> The child's thought should be viewed as part of a lengthy and complex organizing process which begins with an inability to comprehend one's surroundings. This first infantile stage is followed by misconceptions and fragments of ideas, slowly leading to intuitive and partial comprehension, and finally to adequate approximations of reality (1976, p.8).

After the Mr Mouse puppet story the children were given paper and crayons and asked to show in any form (e.g. story, poem or drawing) their response to the story that Mr Mouse had told them.

Table 12 Theme: response to rod puppet show

number of responses	71
no response to topic	6
copies	1

images or text responses	
those showing the connection between recycling and donation of tops in exchange for wheelchair	10
those showing the connection between tops and wheelchair but no recycling	21
those who thought that the wheelchair was made out of tops	14
no connection between the wheelchair and tops	17
reference to the puppet, but no reference to the topic	3

The results showed an understanding of the connection between the large quantity of plastic bottle tops that went to Newcastle which was swopped for a wheelchair for a specific person. What was not so clear in some of the work was the connection between the wheelchair and the bottle tops being related to recycling. Some still believed that the wheelchair was made from melted down plastic. Many of the children presented images that were reproductions of the photographs of the wheelchair recipient, and this suggests that the gift of a wheelchair to a local resident had had an impact on them. The questions that I subsequently put to myself were the following:

- Was it the impact of the puppet that enabled the children to absorb this information?
- Was it that there was a visible result of their efforts in collecting bottle tops that enabled information retention, coupled with the impact of it being the grandmother of one of the children who received the wheelchair?
- Was it because the children had received constant reminders and reinforcement of the information that they were able to retain it?
- Was it a combination of all of the above?

The conclusion that I came to was that it was probably a combination of all of the above. However, the impact that the little rod puppet has had on a range of audiences cannot be underestimated. This cannot only be put down to the likelihood that the children of eSizameleni have had little, if any, exposure to the arts, and therefore are intrigued and excited when exposed to something new, such as a small rod puppet.

Puppetry has entertained and educated children and adults alike for hundreds of years. For example, Javanese culture is intricately linked to the shadow puppet, and the puppeteer, known

as the ‘dhalang’, is afforded high esteem. Javanese culture is reflected in the shadow plays – who holds power, respect, social standing and reciprocity, including household relations, in the village and the broader spectrum of society (Keeler; 1987). Francis (1988, p.2) states that “[s]ince the most ancient times, puppet theatre has been an illuminating source of metaphor, some of which illustrates the relationship between the Creator and His creation”. Puppetry cannot, therefore, be restricted to the genre of entertainment for young children.

The value of material evidence of the result of efforts made cannot be underestimated. In this instance, for example, the children knew who the recipient of the wheelchair was and were subsequently able to see her going to the shops or sitting in her garden in her wheelchair, and make the connection to the information given to them. This is entirely different to collecting plastic bottle tops and never seeing the results of time and effort put in. Disappointing though, was the inability of most children to grasp the importance of recycling, and the threat of litter to the environment. Below are some of the responses that the children presented after this workshop:

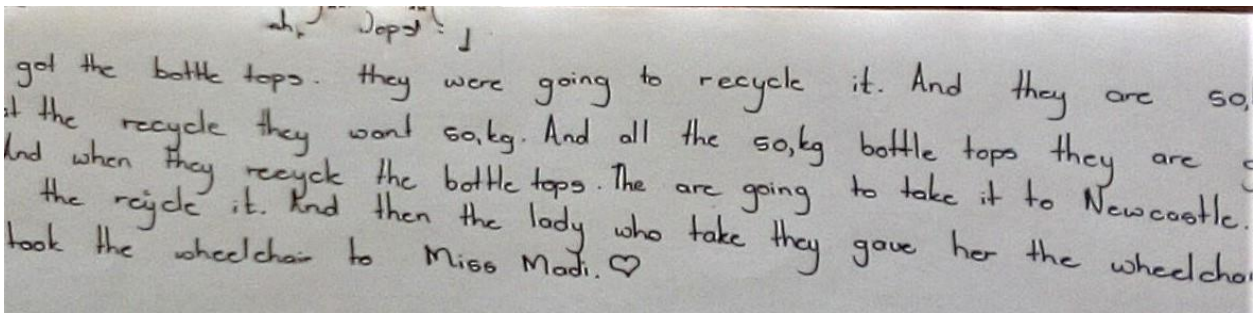

Figure 6.16 Textual response, showing the understanding of the recycling in exchange for the wheelchair

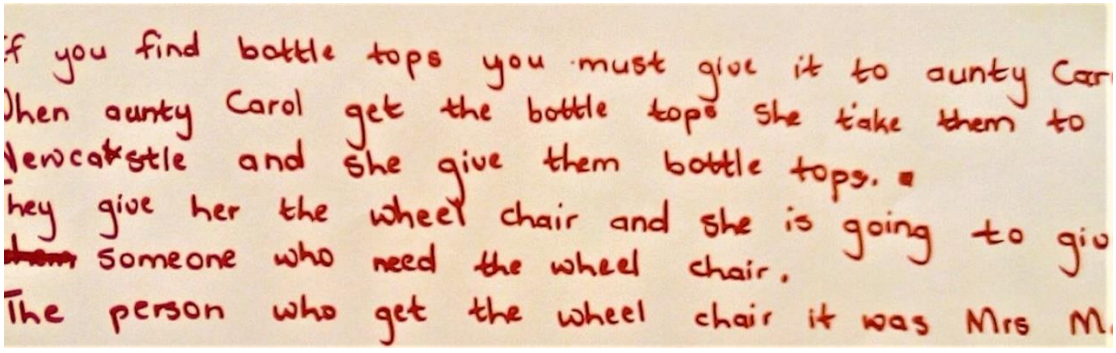

Figure 6.17 Textual response, showing no understanding of the recycling concept



Figure 6.18 Image by a young child showing the wheelchair recipient



Figure 6.19 Image showing the wheelchair recipient

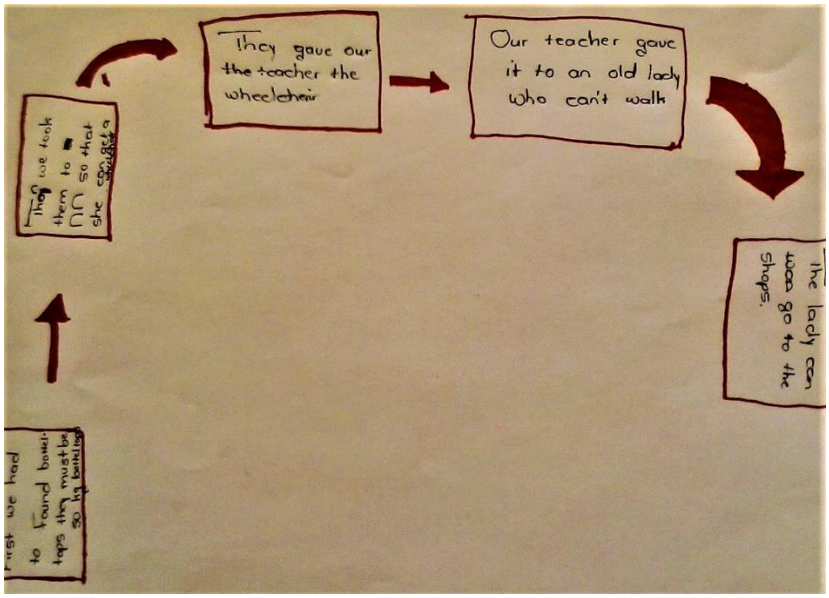

Figure 6.20 Mapped image showing the path from the bottle tops to receiving the wheelchair

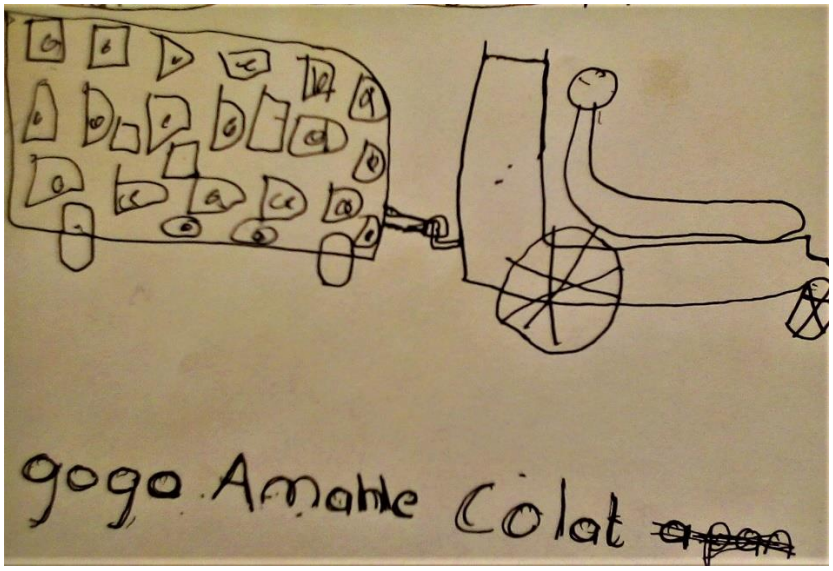

Figure 6.21 Image by a young child showing the wheelchair recipient and the bakkie load of bottle tops

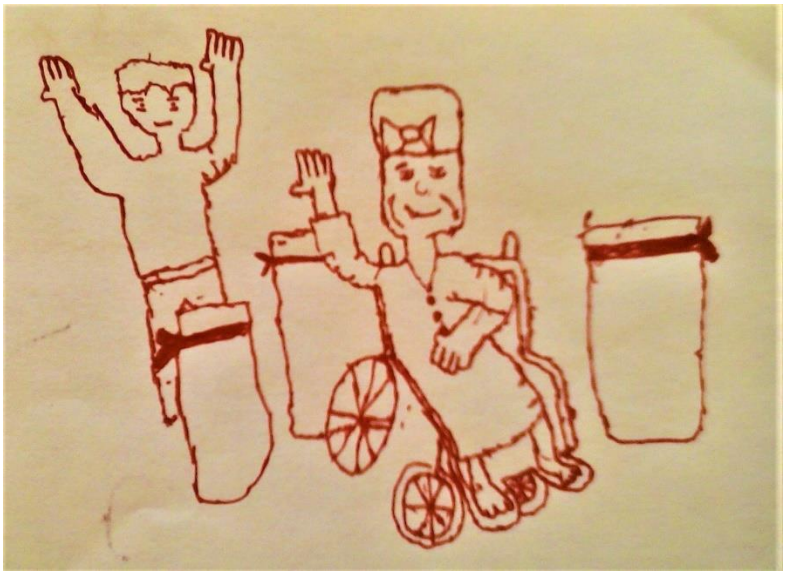

Figure 6.22 Image showing the bags of bottle tops and the recipient of the wheelchair

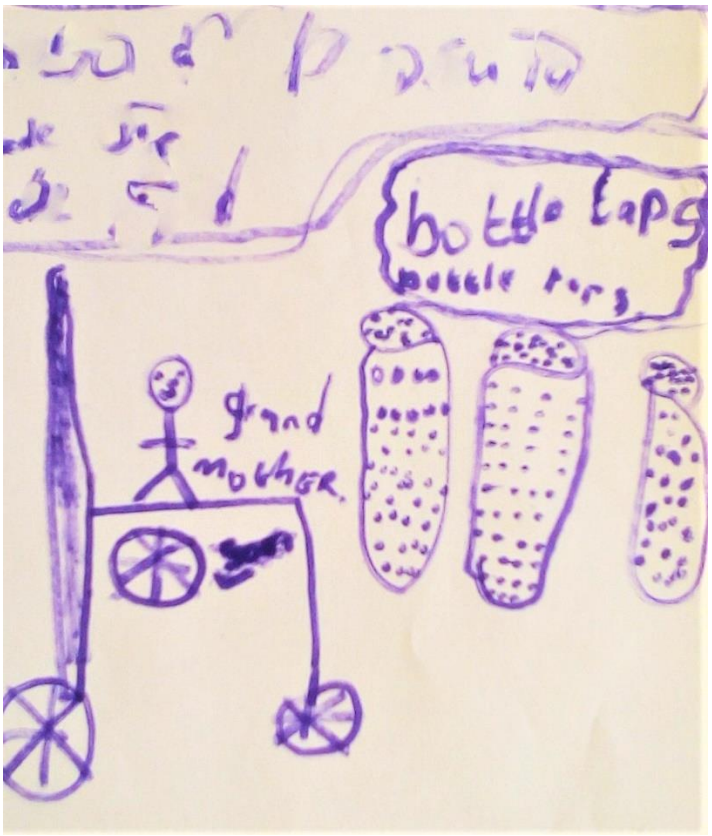

Figure 6.23 Image by a young child showing the bags of bottle tops and the wheelchair recipient

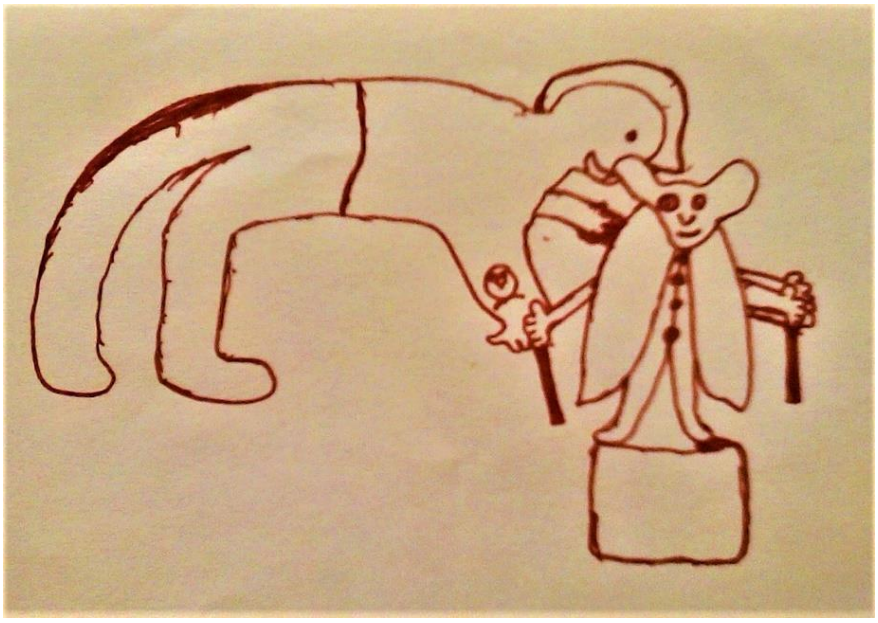

Figure 6.24 Image of the rod puppet and the puppeteer

In analysing the drawings the specific elements foregrounded indicate the focus of the child's response. For instance, one drawing shows that the child was more interested in the rod puppet than the content of the story, while several showed the happy recipient of the wheelchair (e.g. Figures 6.19, 6.22 and 6.23). Yet others showed understanding of the connection between collecting waste and obtaining a wheelchair (e.g. Figures 6.21 to 6.23). Particularly delightful is the 'cart before the horse' image of grandmother in her wheelchair pulling a van loaded with bottle tops.

6.3.1.8 Personal space and embodied environment

The concept of understanding the body and being aware of personal space is an important aspect of drama and dance. In this workshop, which only eleven children attended, the focus was on personal space. The workshop was conducted by Ms Hall, who had returned to the village in 2019. The objective was to build on movement processes that the children had learned previously, to enable the children to put together and perform a dance/drama at the end of the year. In other words, it was hoped that, through workshops such as this one, the children would be provided with the rudimentary tools with which to make their own performance with an environmental theme, thereby showing what awareness they had. Despite this, this workshop was intended as a break from an explicit environmental education focus, in alignment with my determination to minimize the risk of eco-anxiety. Pihkala (2017) notes that "[m]any studies

have revealed that youth experience much anxiety about the global situation" (p.120), and I wanted to avoid this at all costs.

The workshop examined the concept of levels within movement. This was explained in terms of high, medium and low levels in relation to the ground or floor level and the children were then encouraged to form shapes with their bodies that indicated these. Then in groups they made shapes that encompassed all three levels but which also made an interesting shape when combined. From there a movement piece was made where the groups moved from one shape to another and then froze in the final shape. Then all the groups were put together and instructed to move slowly as one group, using the notion of the different levels, to make one encompassing movement piece.

Afterwards Ms Hall took the children through a process of reflection and discussed the manner in which personal space is important. The children were encouraged to talk about their own experience of the workshop. The following are some comments made by the children:

- "If I put my arms out that means that the space around me belongs to me".
- "Sometimes I can be a small shape with myself, and then I can be big too".
- "But I can be big and then S (friend) can be small next to me, and we make one shape".

A second workshop extended the work on awareness of personal space. The children were encouraged to cross the hall while acting as various animals and, at the same time, to consider the three levels experienced in the previous workshop. They chose their own animals accordingly, so a snake would move at a low level while a giraffe would move at a high level, and so forth. Then, when Ms Hall shouted "Freeze!" they had to find their corresponding animals and form a group that was appropriate for that animal – so, for example, individual fish would then form a school of fish, and hold that specific shape. From there they were split into groups to devise a short play using the animals that they had chosen. The groups were specifically constructed to ensure that there was an older child and an equal gender balance in each one. Three plays were presented all of which displayed understanding of the notion of levels as previously worked on and demonstrated a solid grasp of the concepts the children had been taught. This showed that the performing arts were having an impact on them, and confirmed that what both Mr Morris and Ms Hall had taught the children had been retained and was being used in their movement pieces.

6.3.1.9 Texture workshop

This workshop had as its objective the development of understanding of the concept of texture, in both the visual and performing arts, and was an extension of the previous embodied work. It was also to indicate to the children that similar concepts are integral to both these modes. The children were divided into the same groups as in the previous workshop. This time the instruction was to move from a smooth experience to a rough experience and then to freeze, also remembering to make use of the three levels and to consider personal space. Time was given for the movement to be decided upon and to be practised, and then each group presented to the others. Once all the groups had presented, everyone was encouraged to comment on the other groups – this provided space for critical reflection and it was the first time that the children had been exposed to comments by their peers. They were also asked to talk specifically about how they felt doing their own pieces, what they thought could have been done better and what they thought was successful. Many of the children were too shy to talk and there was much disruption by the younger ones, but the older ones engaged in both their own work and the work of their peers. Some of the comments follow:

- "I liked T's play. She is clever with her body in big and small, and I could see rough and smooth too."
- "The small shape of A was good. It was different."
- "I don't like to do the rough shape. It makes me feel sad."

They repeatedly mentioned that they wanted to choreograph and write their own end of year performance and, at this stage, it looked as if this was a distinct possibility.

Ms Hall had facilitated the first part of the workshop, since she is more of a dance practitioner that I am, and I took over for the second part since I am more of a visual artist than she is. Elaborating on the concept of texture I showed the children how to take graphic rubbings from the environment around us. They were then given paper and pencils and free choice of what they could take rubbings from. The children loved this task and were most innovative in their choices. After half an hour they were called together and all the work was put on the floor and examined. The children were challenged to guess what the other children had used to make the specific patterns, and there was much excitement and animation in the discussion. The interesting objects they had selected included tree bark, a scratched bumper of a car outside, the sole of a shoe of a visitor, leaves and a gravel pathway.

Again, it was hoped that this would feed into a performance that the children wanted to make themselves. By this time two teenaged girls had said that they had a plan for a play already and just needed time to rehearse.

6.3.1.10 Performance at the end of semester one

In support of the decision to allow the research participants free reign with planning, writing and rehearsing their own performances for Cycle Two, Preston (2016) claims that "[w]hat makes Applied Theatre work so fascinating is the way it can incorporate the full scope of drama practices and ideas, adapting them to suit the needs and interests of a particular group. Intrinsic to Applied Theatre is the tenet of active participation and ownership in cultural production" (p.153, capital A and T in the original). She adds that "Applied Theatre's responsiveness through form rightly implies that the interests of the participants are prioritized," (p.168). For Hughes and Nicholson (2016)

> …performance is an act of intervention, a method of resistance, a form of criticism, a way of revealing agency. Performance becomes public pedagogy when it uses the aesthetic, the performative to foreground the intersection of politics, institutional sites, and embodied experience. In this way performance is a form of agency, a way of bringing culture and the person into play (p.209).

The authors quoted suggest that there is value in giving performers agency to plan and present their own performances. However, when children are not used to taking an agentive role, support from a facilitator is crucial, as the journal entry below indicates:

I tried to let the children run with their own programme, which of course came with its own challenges. M., who was the one who had indicated that she wanted to perform, was suddenly shy, and struggled to come up with dance moves. She wanted music to dance to and the pieces on the various phones were too slow and the volume too low. (She had not brought any music as I had suggested previously). It was after drinks break that really good stuff emerged, where they sang two songs which had some lovely dance moves. With a few suggestions we turned them into possible performance pieces.

I then suggested adding something about litter and immediately it was there – two verses which they made up on the spot.

Pedagogically, I affirmed that as a facilitator it is good to go from what the children know and have experienced. This then makes the point of departure their own. (journal, 7th April)

The next time I met the children was the 17th April and by then they had forgotten what they had done previously. Not only this but one of the older girls, who had indicated that she was keen on taking a more active role in the procedure, arrived late and then left early without any explanation. Somewhere during the workshop, the children seemed to become lost. There were any number of reasons for this – they may have become tired and distracted, they did not want any outside ideas imposed on them (for example the suggestion that the dance pieces that they had were too long), or they simply wanted to play instead of working on a play/dance piece. It was difficult to explain to them that there was not enough time to create a piece of work by themselves without more structured rehearsals and guidance from facilitators. However, as is attested to in the following journal entry, there were some positive outcomes:

> *The exciting thing was though, that the children came with shakers, made out of bottles filled with stones, beer tops strung on string, and a drum made of a coffee tin. This shows a commitment to the process and an understanding of using waste to make percussion instruments.* (journal,17th April)

The final performance, for friends and family, had to be structured and rehearsed by Ms Hall, Mr Tshabalala and myself since, as much as they had a desire to, the children were unable to put it together in the end. The post-performance reflection shows that there was a learning experience for me, and that the performance itself successfully entertained the audience, but in terms of contributing to environmental education, it failed. The entry reads thus:

> *The most important thing about this performance is that it was the children who provided the material for the show. This shows that they are enthusiastic about performance and contributing towards it, and also that it's best not to always impose material on them. The other thing that was valuable was that I can see how the work I've done with them has brought them out of their shells. I was bowled over when L. decided to play piano as part of the show. He played a nursery rhyme and a classical piece. He is a very shy boy but he had no qualms about performing in front of an audience. And S. performed a rap piece that she had written herself.*
>
> *This is not the first time that I've noted other emergences from my work, which I've not focused on because my focus has been on environmental education.* (journal, 11th June)

According to the goal of the intervention, which was to present a dance or a play on littering, that specifically built on the performances from Cycle One, then the children's performances

were a failure. Their performances, while entertaining and showing enthusiasm, had no message regarding environmental good behaviour for the audience. However, since the children had brought musical instruments that they had made themselves at home out of waste, without any prompting from the facilitators, this aspect of their creativity and agency was encouraging. It was also meaningful that it was the quieter of the girls that had made and brought instruments for the piece, suggesting that the workshops were having an impact which I might otherwise not have noticed. Further to this, the fact that L had decided on his own to play *Twinkle Twinkle Little Star* and Bach's *Minuet*, and that S had volunteered to perform her own rap composition showed that the children were benefiting in a range of ways, beginning to become more confident and more able to communicate with each other, the research assistant and myself.

6.3.1.11 Year-end parade as part of an anti-litter campaign

The first time that I considered the possibility of an anti-litter campaign was in mid-April 2019 during Cycle Two. The questions I put to myself in the journal were as follows:

> *What would it take to conduct a massive anti-litter campaign here? What form would it take? What events could be planned? When would be the best time to have this? How long should it be?* (journal, 17th April 2019)

The parade by the children, as part of a bigger anti-litter campaign that involved the broader community, came about because it became impossible to create and rehearse an end of year play or dance piece as we had done in 2018. As a result of inconsistent attendance there was no way of rehearsing what had already been planned without having to reorganize parts to be performed. This was disappointing because some of the children had begun to understand how to create a play with an environmental message as described in the following journal entry:

> *The play that the children wanted to do included a pond with creatures in it; then two women walk past on their way to the dump with rubbish. They are then mugged by* tsotsis *who think they have money in their bags. When they discover it's only rubbish, they throw it all into the pond, and all the creatures are affected.* (journal, 18th August 2019)

When reflecting on what had been learned from Cycle Two I subsequently wrote the following:

> *As much as the children really want to take control of performance, and as much as I've tried to let them, I've realized that it's not possible. They are too young to really understand the*

complexities of putting a performance together, and certainly not experienced enough to improvise. (journal, 8th October 2019)

This realisation was important for planning for the final cycle of the study.

Because of the lack of consistent attendance by some children, it was decided that there would be no formal performance, but a parade instead, which would be part of a broader anti-litter campaign with adults in the community. The parade would take the form of songs learned during Cycle One and Cycle Two, which would be sung while carrying placards and walking a pre-determined route from Wakkerstroom into eSizameleni. While the Cycle One parade had taken a route from eSizameleni into Wakkerstroom and had been part of the Wakkerstroom Art Ramble, this second parade was not attached to any official community event. The thought processes that led me to the final design of this activity are expressed in the mind map (figure 6.30) included at the end of this chapter.

Thinking that the children would enjoy making their own placards, as they had done the previous year, two workshops were devoted to this. Firstly, a discussion was held as to the purpose of a parade. Secondly, workshops were held where placards were made with the intention of using them for the parade. For the placards the children suggested content by writing suggestions on cards. Many of these suggestions were in isiZulu, and many of them showed a good understanding of information on littering and the importance of a clean environment addressed during Cycles One and Two, and this was encouraging as far as this study is concerned. During the discussion one of the children, a particularly difficult child, who caused conflict among the group when she attended and was consistently disruptive, made a very interesting comment which is reported in the subsequent journal entry below:

While we were discussing the parade, which we decided was somewhat like a protest or a toyi-toyi, B made an interesting comment. She said, almost aggressively, but most definitively, that "people will never stop dropping litter; children would never stop dropping litter; we will never stop dropping litter". I think that the most important thing here, is that she included herself in this, and this is not something that happens often. Mostly the children blame other people for dropping litter. (journal, 20th October 2019)

Figure 6.25 shows some of the placard suggestions written on cards.

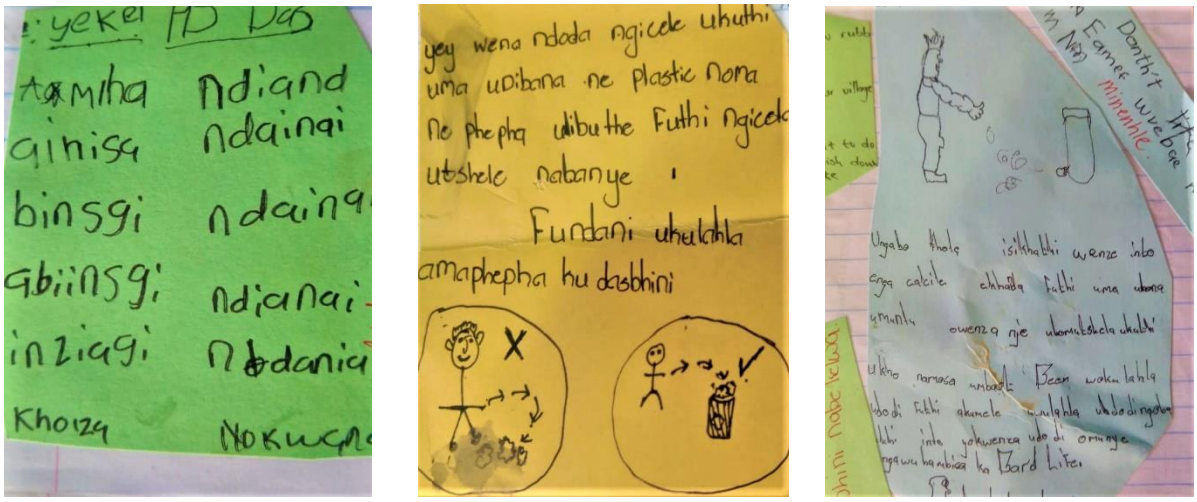

Figure. 6.25 Suggestions by the Litter Lions for placard messaging

The suggestions were then placed on the ground and through a democratic vote, the children chose a few that were most appropriate. The messages were then transferred to large pieces of cardboard and attached to branches collected from underneath trees in the area. The messages, which were mostly in isiZulu, showed that the children understood the concept of the parade, and also the need for clear messaging to the community.

The parade was a damp squib in terms of support from the community. However, there was much interest once the parade entered eSizameleni and many children joined us as we made our way, just as they had the previous year. These children, and many of the adults that showed interest too, were most keen to read what was written on the placards. Some of the children that joined in along the way were children who had been research participants previously but who had dropped out, and it was interesting to note that they remembered the songs that they had learnt.



Figure 6.26 image of some of the children at the parade

6.3.1.12 Other interventions at the research sites

Some interventions during Cycle Two, while contributing to learning, did not take the form of workshops.

An intervention that I added was a reflective process with the children, and small notebooks were given to them in mid-September. These were kept in the venue and handed out at various workshops, and the children were told that I would only read them with their permission. Although many of the children are rather young for this type of activity, some interesting information emerged. It was useful, for example, to get a small insight into social dynamics between the children – who bullies whom, who is friendly with whom, and so forth, but also to learn that some children feel compelled to attend the workshops because they feel that the younger children need them to be there. Some of the children wanted to attend church and wrote that they missed not being able to go to church because of the workshops. In the journal below I reflect on the children's journals:

The journaling was not specifically aimed at what they'd learned through the Litter Lions programme, so I wasn't expecting anything of that. But it's good to get a different perspective on the children – a tiny glimpse into their lives. Clearly they enjoy what we do; they enjoy the dancing, the performing and the games. Whether any environmental awareness is happening is still unknown. (journal, 4th November 2019)

During the construction of the eco-brick bench (See Figure 6.29), at least five children had seen me, along with the friends who assisted me, at work. Then during a Litter Lions workshop, they questioned me about what they had seen us doing. I took the opportunity to briefly explain this project, after which I wrote as follows in my journal:

They were really attentive when I explained how we had made the eco-bench, and I did a diagram representation on the board for them. A picture of the bench = 128 eco-bricks = 128 bags of non-recyclable waste not going into a dump/vlei/sea = not harming wildlife/humans. They got it! They had all the correct answers to my questions and were intrigued when I converted the concept of the bench into bulk waste. (journal, 19th September 2019)

Subsequent to these workshops I held a competition where the children were encouraged to make their own objects out of waste, using the information they'd learned, where the objects could be aesthetically pleasing or useful. Disappointingly only three children entered the competition but their entries showed considerable ingenuity and creativity:

A made two little objects out of mulched egg boxes. One is a little bowl and the other is a planter. T is collecting sweet wrappers and making rings and bracelets. C made a traffic light out of cardboard. The prize is a mirror made out of waste that I had bought years ago and never used. As much as I don't want to provide an incentive, other than having a clean environment, for them to think about waste, this time I've decided to provide a really nice incentive just for a change. The exciting thing is that A has absorbed what I'd shown them when we made the masks, and T is showing initiative with her sweet wrapper jewellery. (journal, 2nd October 2019)

Subsequent to this reflection the child who had made the jewellery continued to make further pieces, and sold them at a village market, earning a substantial amount of money. This was a remarkable step towards experiencing first-hand the results of the work that this study had as a goal by choosing to work with the arts. Being able to generate an income from items made of waste was to have an impact on more of the children the following year.

While the children were busy with a drawing workshop, I left the venue and spent some time collecting sucker sticks which I took back to the venue and placed in a pile on the floor. When I asked them who was responsible for dropping these on the ground there was a resounding answer: “We are!” This response may indicate a meaningful shift in the children’s perspective in that prior to this they would not have admitted to being responsible, blaming others instead. While they are not yet changing their behaviour, they appear more aware of their behaviour than at the start of the research interventions. However, I also needed to consider that owning their behaviour may also have been due in part to the children feeling more relaxed and confident in their responses to me.

6.3.1.13 Interventions with children beyond the research sites

There were opportunities to work with other children in addition to the research participants, on themes similar to those used in the research study. These were relevant to the study as each provided insights into aspects of the research, and some useful connections and learning experiences were enabled. These connections and experiences were exciting and encouraging because they revealed that there are many other projects, both locally and internationally, that are similar to this one.

The first involved a visit to the Luneburg Primary School, where I was invited to be the guest speaker at a year-end function showcasing the work that the children had done during the year. Like eSizameleni Primary, this school is a government school, and the children who attend are largely children of German farmers and farm workers in the area.

The school has an eco-club where children choose the theme for the year – water and plastic for 2019. This meant that the focus of the work done was on innovative ways of reusing plastic, recycling plastic and taking care of water. All the work was on display in the school hall, and there were numerous items made out of plastic waste, such as a cooler box made from bubble wrap and insects made of plastic bottles. The children also make eco-bricks which they send to a central drop off place in Johannesburg. As guest speaker I was asked to present the various projects that are underway in Wakkerstroom, either as part of the Litter Lions or the WNHA, and for this I gave a power point presentation. Here I described the tops and tags project, showing photographs of the recipient of the wheelchair, the eco-brick project showing photographs of the eco-brick taxi bench we had constructed. I also outlined this doctoral research where the arts are used to raise awareness with regard to littering. Finally, I did my puppet show, using the rod puppet, Mr Mouse, and told the story of the *Lunch box boy*. This

was done with some trepidation since the audience was made up of approximately eighty children and eighty adults, all either German, Afrikaans or isiZulu speakers. My impression from feedback over coffee was that the presentation, including the puppet show, was a great success. The children were excited to see the photographic evidence of the success of the tops and tags and eco-brick projects, and unanimously decided that all collections and construction of these items would be donated to Wakkerstroom in future instead of being sent out into the 'ether' where no concrete outcome could be observed.

The second opportunity to work with children came during a social visit which Ms Hall and I made to Morija, a small village in Lesotho. On arrival it was clear that a clean-up was being held involving the children in the village. Since the clean-up was to run over two days, we took part in the second day's activities which comprised various talks and games with an environmental focus, as well as a further clean-up. I was given a slot where I did a puppet show improvised with the help of Ms Hall. Afterwards the facilitators posed some questions to the children about what they had understood from the puppet show.

The experience taught me that there is a vast difference between the children of eSizameleni and the rural children of Morija. The participants in the research site have access to television, cell phones and computers, at least at the internet café and the library, if not at school. The Morija children were far more enthusiastic to engage with any learning experience given to them. The children and adults alike were deeply attentive to the performance and the contribution of the translator I had asked to assist did not detract from the flow. The children understood the content of the story and were able and willing to repeat the message back to the facilitators. Whether the weekend's events were to have an impact on the behaviour of the children was for the local facilitators to follow up on. Figure 6.28 shows the performance of the puppet show.



Figure 6.27 Impromptu puppet show in Morija (photograph courtesy of Mari Hyokyo)

I was also able to set up an interview with the facilitator of the programme, who had come from Maseru. She runs a programme there almost identical to the Litter Lions programme and there is much congruence between the two. This can be seen in the following excerpt from the interview:

F: We would help them with their homework, but then from there, we thought why not bring that environmental consciousness here. From there they started having that idea – let's do a drama about this, let's do a poem, let's do dancing. We had monthly clean-ups. It just turned into that – it's about the drama, the community clean-ups, the ways we can raise awareness in the community. In a simple way, 'coz we're dealing with kids of all age groups – they range from four to 16/17.

C: Why particularly poetry and dance?

F: To be honest it's entertaining. It was something they were doing already, naturally. If they were bored you would see them doing pretend drama. If that's what engages them, why not use it? For us it was just what they were already doing.

Ms F agrees with me that the arts are an appropriate way in which to raise environmental awareness and to change bad environmental behaviour. She faces the same challenges that I

face, in that there is a dropout rate among the older children, especially the boys, although she also questions why other children continue to come. We agreed that it is likely to be because there are few opportunities for children in both Maseru and Wakkerstroom to socialize after school hours, and both Ms F's programme and my own give children something different to do. She also mentioned that she had identified the need to take care of other needs in the children's lives, particularly the adolescents, and not only focus on environmental awareness. She agreed that reaching the broader adult community is important as well, and this concurs with the findings of this study at the end of Cycle One. Both of us still struggle with the question of whether we have made any meaningful impact on the children in terms of how they view, and behave towards, the environment.

This meeting was not only informative, it was encouraging in that I had made a valuable contact with a like-minded person, and collaboration opportunities will continue beyond this study.

6.3.2 Adult interventions

McNiff (2014) claims that "[v]alues, logic and practices are mutually influencing: what we believe in and value influences how we think; how we think influences what we believe in; and values and logics influence, and are influenced by our practices" (p.34). The beliefs, values and practices of parents and other adults in Wakkerstroom-eSizameleni are likely to inform the beliefs, values and practices of the children of the area. The following section describes the interventions facilitated for adults during this cycle.

6.3.2.1 Power point presentations

Swanepoel and de Beer (2006) argue that, "[y]ou cannot make informed decisions if you do not receive the necessary relevant information" (p.63), and therefore it became important to me to provide what information I could to the adult members of the broader community. The assumption that educated adults have sound knowledge of good environmental practice is incorrect, as was seen first-hand in many instances during the reconnaissance phase of this study. Many people did not know what waste is recyclable and what is not; many people assumed that a plastic bag is biodegradable when they perceived it becoming brittle and breaking into tiny particles, rather than understanding that this is the worst of plastic waste that enters the natural environment.

I therefore decided to give a number of power point presentations to adult audiences during the course of Cycle Two and these took into account the advice of Swanepoel and de Beer (2006)

who advise that "[i]nformation should not speak only to the minds of the people, but also to their hearts" (p.64). Some of these presentations were repeated to the same audiences with some changes, in order to reinforce the information. "Talking garbage" formed the basis of the topic, which was adjusted according to the audience at any given time, i.e. English, Afrikaans or isiZulu speakers, or various community groups or NGOs. A presentation on the benefits of earthworm farming was also given and this was to result in many families starting their own earthworm farms, mostly with children being the driving forces behind this activity.

Subsequently many residents informed me that they had begun to recycle waste after the presentations, until unfortunately the depot was closed.

6.3.2.2 Questionnaires

For Cycle Two I decided to use a questionnaire to establish whether the adults who had attended the local high school had been taught anything at all about littering, dumping and environmental awareness and also to find out what explanations they would give for why littering was so prevalent. (See Appendix A). Fifty questionnaires were sent out via Ms Nsibanda and Mr Tshabalala, and twenty-one were returned. Seven males and fourteen females responded, with most of them aged between thirty-one and forty. Eighteen of the respondents had attended high school in Wakkerstroom, with one person having been born here but not attending school. All except one of the respondents who attended high school here, said that they were taught about environmental degradation and the importance of keeping a litter-free environment. Responding to a question as to why people dump, eight of the respondents said that people are lazy, seven that there are no dustbins, and one that the waste removal truck does not come regularly. In response to a question as to why people dump waste instead of putting it out for the truck, seven answered that there are not enough bins, while four stated that there is no education as to what to do with waste. Two people said that there is no municipal waste collection. Most interesting was that one respondent said that if the streets were clean then people would not use the streets for dumping, similar to a number of comments from residents made reconnaissance phase of this study.

The next question dealt with why people dump diapers in waterways. Once again four said that it was because there are not enough bins, one said that mothers are mostly teenagers who have better things to do, while one said that people do not do this – it is pets and wind that are responsible for this. One said that it is because water takes the diapers away, and two said that

people are uneducated. Six people said that people simply do not care, which is interesting as this was the highest number of responses giving the same reason.

When asked how they thought the village could be made cleaner the response was mostly around education, with four suggesting awareness campaigns, three suggesting that people be taught how to use bins, two suggesting teaching high school children and one suggesting education on reuse and recycling of waste. One respondent suggested providing a monetary incentive to clean up regularly, one that the municipality should provide strong bags and one calling for a functional municipality and better supervision for the CWP workers. Below is the tabulation of the responses.

Table 13 Theme: adult questionnaire on knowledge of waste/recycling

female respondents = 12 male respondents = 9

Question 1: how long have you lived in eSizameleni?

1-10 years = 1 10-20 years = 6 20-40 years = 6 40+ years = 8

Question 2: how old are you?

20-30 = 2 30-39 = 9 40-49 = 5 50-59 = 4 60+ = 1

Question 3: did you attend high school here?

yes = 17 one did not attend school 3 no responses

Question 4: were you taught anything about litter/waste in school?

yes = 16

Question 5: What do you think causes people to dump rubbish into water and onto the ground?

stubborn/laziness = 8 no bins = 7 no education = 8 no truck to fetch waste = 1

Question 6: Why do you think people dump instead of putting waste out for collection?

People don't want to buy bags = 1
People don't have bins = 7
There is too much waste and people don't like full bins = 2
There is nobody in the home willing to take the bin out = 1
People don't care = 1
If the streets were clean the people wouldn't use them to dump = 1
No education as to what to do with waste = 4
There is no truck collection = 2

Question 7: Why do people dump pampas in the rivers?

People don't care =6
There are no bins = 4
The water will take it away = 1
People don't like the smell and germs in their homes = 2
There is no alternative = 1
I don't know = 1
It is the teenagers who do this = 1

People don't do this; it is pets and wind that does this = 1
People are uneducated = 2
Question 8: How can we make the village clean?
Have places to send rubbish to =2
Reward people for collecting rubbish = 1
Provide bins = 5
Teach people how to use bins = 3
Hold awareness campaigns = 4
Teach high school children = 2
Provide wheelie bins = 1
Municipality to provide black bags = 1
Truck to collect once a week = 1
Have a community group to clean the village = 1
Better CWP supervisors; functional municipality = 1
Eliminate single-use plastics = 1
Educate people on recycling and reuse = 1

The information gained from the questionnaire was interesting. Lack of education came to the fore as a leading reason for poor environmental behaviour, despite most of the adults having been taught good environmental practice at school. This response suggests that I was correct in assuming that this study needed to include adults as well as children and it reinforces the need to bridge the gap between awareness and action. It also meant that the work of raising awareness and education needed to continue with adults and children alike, well beyond the timeframe of the research study.

That the respondents suggested that bins be provided was also interesting, since I had been told that all homes had been provided with bins in the past, and these were then used for purposes other than waste collection. Some respondents statement that the municipal truck needs to collect waste regularly, was strange to me, since I know that the truck does this once a week.

That some people believe that wind and pets are responsible for diapers entering the waterways, with no responsibility attached to humans, was alarming to me, as was the response where it was suggested that water takes the diapers away. That people cause a problem in polluting water is not considered.

Findings from this small survey provided the impetus for a project to provide sealable bins, in the form of up-cycled paint drums, to new mothers, to be distributed through the local clinic.

6.3.2.3 Clean-up campaigns

A community vlei clean-up was held on 2nd March 2019 and there was a good turnout of volunteers, although not as many as had participated in the first clean-up. Eight bags of waste were pulled from the waterways and surrounds with the bulk of the waste being plastic and glass bottles. Items left behind after traditional rituals were also found, and a pile of bags of diapers that were so waterlogged it was impossible to remove them. Although there were fewer people working than during previous clean-ups, there was also substantially less waste. This however, cannot be taken as conclusive evidence of improved practices with regard to littering and dumping, since the first clean-up, which resulted in the removal of a greater amount of waste, had pulled waste from the waterways that had been building up over many years. What is relevant to this study is that, despite the call to all sectors of the community, all the volunteers were members of the WNHA or the WWT (Wakkerstroom Walks and Trails) groups, with the addition of one gardener who was paid to assist.

Through the WNHA I decided to run an anti-litter campaign that involved the children from the parade, as described above (see 6.3.1.11), and the various groups that are supported as job creation initiatives, in a large-scale clean-up of an identified area in eSizameleni, the day after the parade. In the short term the objective was to clean up an area that was particularly affected by litter and to raise awareness in the groups that participated and, through the visibility of the work done, to raise awareness in the community as a whole. This entailed meetings and requests for permission from the supervisors and heads of departments of these groups as well as approaching the municipal manager and his assistants. The groups that contributed were the WOF (Working On Fire*)* team, three CWP teams and the Delta Environmental Group, and the municipal workers who are usually employed to keep the village clean. (The Delta Environmental Group will be referred to in section 6.3.2.6.) A call to the rest of the community was made for volunteers to assist in providing black bags, transport of waste, refreshments and also picking up litter.

There were approximately eighty people involved on the day and 346 bags of waste were pulled from the area. The value of the day, besides cleaning up the area, was that many ongoing conversations were initiated. The mind-map at the end of this chapter, in figure. 6.31, outlines the various components, organizations, equipment and groups of people worked with in planning the campaign and in follow up monitoring.

The children who had participated in the previous day's parade had been shown the area to be cleaned and asked to take special notice when they came home from school, of the difference

the clean-up campaign had made and also to monitor how soon the area became polluted subsequently.

Despite the fact that it took just approximately one week for the area to become as polluted as it had been prior to the clean-up event, there was a significant outcome. The Delta Environmental Group decided to hold a clean-up of the same area again. This time they made all the arrangements themselves, ensuring that there were enough protective gear and black bags for the morning, the municipal truck to come and pick up the bags and a lunch provided for all who participated. None of the people who attended this clean-up were paid, except for the ladies who made sandwiches for lunch. It was impossible to establish how many bags had been collected because by the time lunch was served and people gathered, the truck had removed everything.

This truly was a significant event and, despite its having nothing to do with the raising of environmental awareness in children through using the arts, concurrent conversations indicated that my work in this village is making a positive difference. People spoke about the Environmental Impact Assessment that had supposedly been conducted and which permitted RDP homes to be built in the surrounds of the area we were cleaning, where clearly the water table was far too high to have structures safely built; they spoke about the problem of diapers in the waterways and the possible ways of preventing this by providing information to mothers and teenage girls; they spoke about the various art and performances that I had run during the course of the previous two years; they spoke about how disappointed they are in the ward councillor, who is always invited to these events but who never attends; they spoke about the pipeline proposal and how the councillor had lied to them. All of this showed how important visibility is, particularly in a small village, and very importantly, visibility in the form of me getting my hands dirty (literally) and being prepared to engage in activities that have traditionally been undertaken by simply paying someone else to do them.

The trainer engaged by the Delta Environmental Centre, to conduct the training that is mentioned below, told me that he has run the programme all over the country, but the one in Wakkerstroom has been the most successful by far. He said that one of the reasons was my contribution to alleviating environmental degradation that encompassed all sectors of the community. Whether this is true or not, it certainly was most encouraging to hear. None of this is to say that littering and informal dumping will halt in the near future, but a seed has been sown, and bears nurturing. Changing habits can be extremely difficult, as Kollmus and

Agyeman (2002) note: "[a]nyone who has ever tried to change a habit, even in a very minor way, will have discovered how difficult it is, even if the new behaviour has distinct advantages over the old one" (p.241). They use the example of a person trying to give up smoking.

6.3.2.4 Eco-bricks and tops and tags projects

It was just as important for the adults in the community to experience first-hand the outcome of efforts such as the eco-brick and tops and tags projects, as it had been for the community's children. A number of social events were held where eco-bricks were made, and such events were both fun and productive. Outlining these projects in the power point presentations mentioned above (section 6.3.2.1) created awareness, and resulted in many villagers getting involved, including residents at the retirement village, domestic workers and their children, and visitors to the village.

The first eco-brick construction was decided upon by vote and this was a taxi/bus bench erected at the entrance to the village, situated next to a swing bin that had been erected the year before. The positioning of the bench has meant that it is visible as people enter the village and has provided a place for people to rest while waiting for their transport. There was much encouragement during the construction of the bench and its success has resulted in many more people contributing to the making of eco-bricks. Since the taxi bench took 128 eco-bricks to build, the other meaningful result is that far fewer non-recyclables went into a dump.

Similarly successful was the outcome of the tops and tags programme, where a specific person with a face, a name and a reputation in the community benefited. Because efforts resulted in a material outcome locally (the provision of a wheel chair to a local resident) awareness has been raised far more than if these locally produced eco-bricks and tops and tags had been donated to national programmes. Evidence of this is that many individuals and organizations now collect tops and tags for the wheelchair programme. This was one of the most important aspects of any success in this study so far, especially since the work that goes into the collection and construction is across all socio-economic strata and age groups.



Figure 6.28 Eco-bricks under construction



Figure 6.29 People waiting for a taxi at the eco-brick bench

6.3.2.5 Champions of the environment

One of the findings from Cycle One was that a champion, or champions, of environmental projects needed to be sourced. I made a concerted effort to search for these individuals in order to establish relationships with a view to creating synergy between the Litter Lions and other organizations. Although Block (2009), claims that "we have already learned that the transformation of large numbers of individuals does not result in the transformation of communities" (p.5), in my view such transformation is possible, especially if we consider the work of people like Jane Goodall, as quoted at the beginning of this thesis, who is amongst the many individuals who have transformed communities in very meaningful ways. It also seemed inconceivable that the barriers that existed between residents, the council and the various organizations could not be broken down. The effort made has yielded encouraging results which are described and discussed in this section.

A Facebook post by a young man living in eSizameleni, who communicated that he was fed up with the littering and dumping in the village, resulted in a meeting where an immediate relationship was developed. He is a supervisor of one of the groups of CWP workers and he tasked himself with cleaning up waterways and dump sites. Through him I have been able to bring organizations and individuals together, and have accessed areas that I would otherwise not have been able to, such as communication channels with the council. He has attended the power point presentations and works tirelessly in trying to educate and raise awareness among the people responsible for the dumping of waste. The community of Wakkerstroom supports his efforts on an on-going basis by donating black bags, rubber gloves, dust masks and, at times, refreshments. He has also been sponsored a bicycle which makes his work easier by enabling him to monitor work faster and come to events held as part of this research project. His is also willing to work as a volunteer after hours, for example in community clean-up events. As a champion of the environment his visibility and engagement with the research participants is invaluable. Here is conceivably evidence that the statement by Block (2009) quoted above regarding individual transformation having no capacity to transform communities is incorrect.

Another champion that emerged was the *dominee* (minister) of the local NG Kerk. Through him many people were encouraged to contribute to the various projects that are running, especially in the retirement home. Through his contacts in the Afrikaans farming community he sourced resources such as building materials needed for construction of the eco-brick

benches and swing bins. Unfortunately, he passed away in 2020, and this was a huge loss to the community and to this project.

Informal recyclers, who make their living from collecting recyclables from dump sites, were engaged in conversation to establish where they store their material prior to collection and whether they were willing to receive donations. These are some of the means that were found to solve the challenge of the recycling depot's closure. These conversations resulted in new recycling depots, which are discussed further in Chapter Seven.

Finally, and fortuitously, in a restaurant I met a man who was in the village facilitating the work of a group of young people as part of a national job creation programme focusing on the environment. This is the Delta Environmental Group mentioned previously with reference to the village clean-ups. As a result of conversation with him I was able to access the group during one of his classes, and here I performed my Mr Mouse puppet show, adjusting the content to align with the age of the group. The following journal entry attests to my feeling of encouragement:

> *I talked to them about what I am doing with the WNHA and the children. None of them knew anything about the WNHA, which is a very important piece of information. I did my short puppet show for them, ostensibly to show them how I work with the children but also because it doesn't matter how old a person is – we all like a puppet show. Then I spoke to them about the anti-litter campaign and the parade. I emphasized that one doesn't always have to be motivated by financial payment, that a clean and healthy environment should be payment for work that we do in this instance. It was refreshing to be listened to, to be able to pitch to adults and to know for sure that they understood what I was talking about. If at least one person in the group of about 20, is moved to action and changed behaviour, and takes it home to his/her children, then I am doing my job properly.* (journal, 15th October 2019)

Many of the people in the group were already known to me through various projects or social interactions and this helped in forming relationships. From this fortuitous meeting I have been invited to various events, such as the clean-up described in section 6.2.3.2, run for and by this group who are in the process of applying for NGO status. Since the programme has been implemented through local government, I have also been able to access key role-players through this group, that I would otherwise have not met or had access to. One group member has indicated that she would like to sit on the WNHA committee and this will contribute to making the committee more inclusive of the whole community. Her son is also a member of

the Litter Lions. This woman has become a key representative of the Delta Group and has indicated to me that, prior to the course she undertook, she had no idea that the practice of littering and dumping had such a negative effect on the environment, even though she had been taught this at school.

Providing some useful advice on the success and sustainability of projects such as this one, Rodda (1991) stresses that …"[i]n particular, with regard to combating environmental degradation and establishing sustainable and wise use of natural resources, it is crucial to ensure that women, as key actors, can support the activities and will be motivated for implementation and long-term sustainability" (p.151). This woman has agreed to participate in, and contribute to the work with the children on an on-going basis. This is relevant in that the contribution of women in addressing environmental issues and the importance of women as knowledge holders with reference to local natural resources need to be taken into consideration.

The importance of these individuals and groups is that they have emerged from the communities of Wakkerstroom-eSizameleni. As early as 1988 Coetzee recognized the importance of engaging with 'non-experts' in projects such as these, when he wrote that "[t]he assumption that development is not merely the result of the master plans of the so-called experts implies that development (as a process with deeply embedded moral overtones) must be approached from other points of departure as well" (p.88, brackets in the original).

Thus it became vital that in further work in the field, the champions identified during this study, such as the woman discussed above, be involved as planners and implementers of any project, rather than have projects imposed from 'above' by outsiders.

In addition to discussing natural capital, Roseland (2000) discusses "social capital", explaining that … "social capital gets created by the individuals who form social networks, to produce goods and services, non-monetized as well as monetized. Networks are usually informal groups who know each other personally, such as villagers who help each other…" (p.83). A valuable aspect in the development of the relationships with the champions described above, is Roseland's term "non-monetized", since these people are willing to participate in activities in the environment without payment. Additionally, they are enthusiastic about creating their own events aimed at alleviating environmental degradation, and inviting me to participate with them. The value of the social capital gained through these interventions cannot be overemphasised.

6.4. Personal challenges

Besides the inappropriate behaviour of some of the children with regards to my private space, there emerged other challenges that threatened to disrupt the study during Cycle Two, and further into Cycle Three.

With the work that I do and the constant reminders of the state of the village and the world in general, the eco-anxiety that afflicted me in Cycle One, became exponentially worse in Cycle Two. The closure of the local recycling depot exacerbated this and I soon learned that people are very comfortable with passing the problem (in this case the challenge of finding alternative means of recycling) on to other people. In my opinion this particular challenge should have been one that the community and the council faced together, but it was not so.

This was a learning experience in that I saw first-hand the notion of NIMBY playing out. Community members wanted to expend as little effort as possible on recycling or reusing waste, but to alleviate their consciences would make it my responsibility. On at least three occasions, I was aggressively confronted with the question 'what are we now supposed to do if you don't accept waste?' People constantly told me that they do not have time to make eco-bricks, to which I began to respond by asking if they thought that I did have time.

However, despite the irritation and sense of being overwhelmed, these experiences opened new avenues for raising awareness in the village. Instead of refusing to assist in responding to the challenge of the closure of the recycling depot, I chose to engage the community in thinking about how the problem could be solved. I also engaged the champions that had emerged in the adult community in conversation to this end and used the situation to further awareness and education.

As much as I knew from what I had learned during Cycle One that I had to place clear parameters on my own space, both emotional and physical, the challenge became more serious in Cycle Two, and had to be faced consciously in going into Cycle Three. Bess et al (2018) warn of this: "Throughout the research process the philosophical, political and religious beliefs of the researcher, as well as their racial attitudes and other convictions, all play an underlying role. As human beings, researchers can never be completely objective, particularly when dealing with social phenomena" (p.360). Being outside of the socio-cultural sector of the community within which I was often working within forced me to examine myself, my values and my behaviour.

6.5 Findings

Analysis of activities undertaken by the children indicated increased environmental knowledge and awareness but there was still no indication of any change in behaviour. The inclusion of adults in the study afforded some good results, especially with regard to identifying champions of the environment. The findings are discussed separately for children and for adults.

6.5.1 Children

As had been found at the end of Cycle One of this study, the children continued to drop litter on the ground, which was very disappointing. There were a number of incidents that were indicative of this, as the following journal entries show:

> *S was eating snacks when I arrived to fetch the children, and as I was closing the doors of the car, there was her snack packet on the road! I asked her why she'd dropped it and she said: "I forgot". She then authoritatively told a boy to pick it up. It was only when I made it clear that I knew she had dropped it that she confessed.* (journal, 15th September 2019)

> *C dropped the wrapper from her frozen juice on the pavement when I went to fetch them. They were all sucking on these things when I arrived and I decided to watch them carefully. Of course, I called her on it, and she was appalled that she had done it, and it was absolutely clear that it was a completely subconscious action on her part. T accused her of being a fake Litter Lion. Later the research assistant dropped paper on the ground outside the venue, which the girls called him on. He denied it, but the interesting thing was that none of them picked it up, despite the argument as to who was responsible.* (journal, 4th November 2019)

Formanek et al, writing about the child's intellectual development, and in reference to the journal entry above, state that "[s]ince he [the child] believes he is the centre of his universe, he responds only to his own needs and his own perceptions. He does not understand the difference between cause and effect, between subjective and objective, between dreams and reality" (1976, p.15). In consideration of this it is not surprising that the younger children behaved in the manner in which they did though the older ones should have been aware of cause-and-effect relationships.

Another aspect of my findings was confirmed by the experiences of Ms F. Children in both eSizameleni and Maseru experience teasing if they are seen cleaning up their areas without

adult supervision. The children have told me this on numerous occasions, when I have asked them why they do not want to clean up without my assistance. This was a contributing factor when the children showed reticence to clean up and to encourage their peers and parents not to litter or dump.

In assessment of the areas identified as indicators of children's littering practices outlined in Chapter Five, at the end of Cycle Two it was clear that no change was evident. Each time the children were requested to do a quick clean-up of the school grounds during the cycle, the same amount of waste was collected, which indicated that nothing had changed at all. However, as with the other three areas focused on for this purpose, it cannot be conclusively claimed that the research participants' behaviour has not changed, since in both these areas other children also play there, and thus it may not be possible to answer this question definitively in this study.

When the children were tasked with collecting specific items of waste, the following questions were asked in the journal:

> *Are they collecting bottle tops to please me or are they really committed to contributing towards a wheelchair for someone in need? I'm so tired of this second guessing, but without it there are no more questions to be asked, and no definitive data* (journal, 18th October 2019)

It became clear that there had been some development in the children's environmental awareness, as was indicated in the drawings and the drama workshops. Here they showed retention of information and ability to build on information previously presented. The visible effects of work in reuse of waste, such as the eco-brick bench and the wheelchair, resulted in a remarkable increase in desire to contribute towards these projects, whether they are sustainable or not. However, it was also clear, generally, that the children were still littering. The habit of dropping litter on the ground is so entrenched that they are not even aware that they are doing it, even if they really do not want to do it. Breaking this habit was not something that could easily be achieved over a period of time, and certainly not over the course of the timeframe allocated to this study.

Since the children had indicated that they wanted to make their own plays during the course of Cycle One, I had built this into the interventions in Cycle Two. However during this second cycle I discovered that the children were unable to do this successfully. There were several reasons for this, and within the scope of the study I could not take all of them into account so for Cycle Three I decided to revert to facilitator-based interventions.

6.5.2 Adults

The decision to include adults in the study was productive. Working with various adult groups and individuals in the communities provided opportunities for developing relationships, opening conversations and providing platforms for raising awareness that may have an impact on the children over time. Realizing that the arts can be used for work with adults was crucial, too, in that it offered more opportunities for events in Cycle Three where exciting interventions could be planned. Learning that my assumption that adults would not be open to arts interventions such as puppet shows is incorrect, meant that this was one form that I could use more extensively. Just as it had with the children, the visible and concrete effects of reusing waste, had a marked effect on the environmental awareness of adults. This could be seen in the construction of the eco-bench, in which a number of adults took great interest. Further arts interventions together with power point presentations for adults in all sectors of the community were crucial to continued success in this aspect of the study.

6.5.3 Self-preservation

Given the eco-anxiety that I began to develop during Cycle One, and the challenges that I experienced during Cycle Two with regard to my personal space and my own behaviours, planning for Cycle Three needed to take self-preservation into account. With reference to eco-anxiety Pinkala (2017) observes that "… most of those who wish to advance environmental matters have stressed that anxiety and guilt should not be generated" (p.112). I thus needed to put structures in place that could protect me from such anxiety, while also not forgetting the mental health of adult community members and children.

6.5.4 The need for a critical friend

It had become apparent that I needed to be able to step back from the interventions, and take a view that differed from the perspective from which I had been forming my reflection. I had become too close to both the events and the children, so therefore began to search for a new means of gathering data that did not involve my being in the middle of the work while it unfolded. In action research a 'critical friend', an external person included in order to provide insight that may be invisible to the researcher, is often used as a source of additional data. In the case of this study, however, since I enjoyed the assistance of both Ms Hall in the form of professional facilitator and Mr Tshabalala in the form of research assistant, I planned to step back from some of the activities so that I could take the position of a critical friend to observe aspects of my own research project during Cycle Three.

6.6 Conclusion

The successes in Cycle Two in regard to working with adults suggested that these could be continued, and built upon in Cycle Three. While there was little, if any, indication that the arts had facilitated any behaviour change in the children in regard to littering, which was as disappointing as it had been at the end of Cycle One, the relationships and conversations that opened up in Cycle Two were valuable. Pivotal in the learning was that the children want to be environmental custodians but have habits that are difficult to break. What I learned from working with children and with adults during Cycle Two enabled a clear direction for the planning of Cycle Three, which would involve further work with both adults and children.

Taking into account political role-players in the field, and developing relationships and communication channels with them, as had been identified as a need at the end of Cycle One, served the study in a positive manner. This enabled work to be undertaken that had previously been impossible to do. Maintaining open channels with these authorities, especially the junior members of municipal staff who work 'on the ground' as it were, was important in the planning for Cycle Three.

The interview with Ms F in Lesotho was enlightening in that it indicated that the challenges faced within this study are not unique, especially with regard to the question of changing behaviour, but also regarding personal space and eco-anxiety. The fact that the programme that Ms F runs is so similar to the one at the heart of this study was most informative and encouraging, specifically because of the issues mentioned above, but also because it opened up possibilities for further collaboration.

Chapter Seven describes and discusses the interventions undertaken for Cycle Three and ends with a critical analysis of all findings from Cycles One, Two and Three.

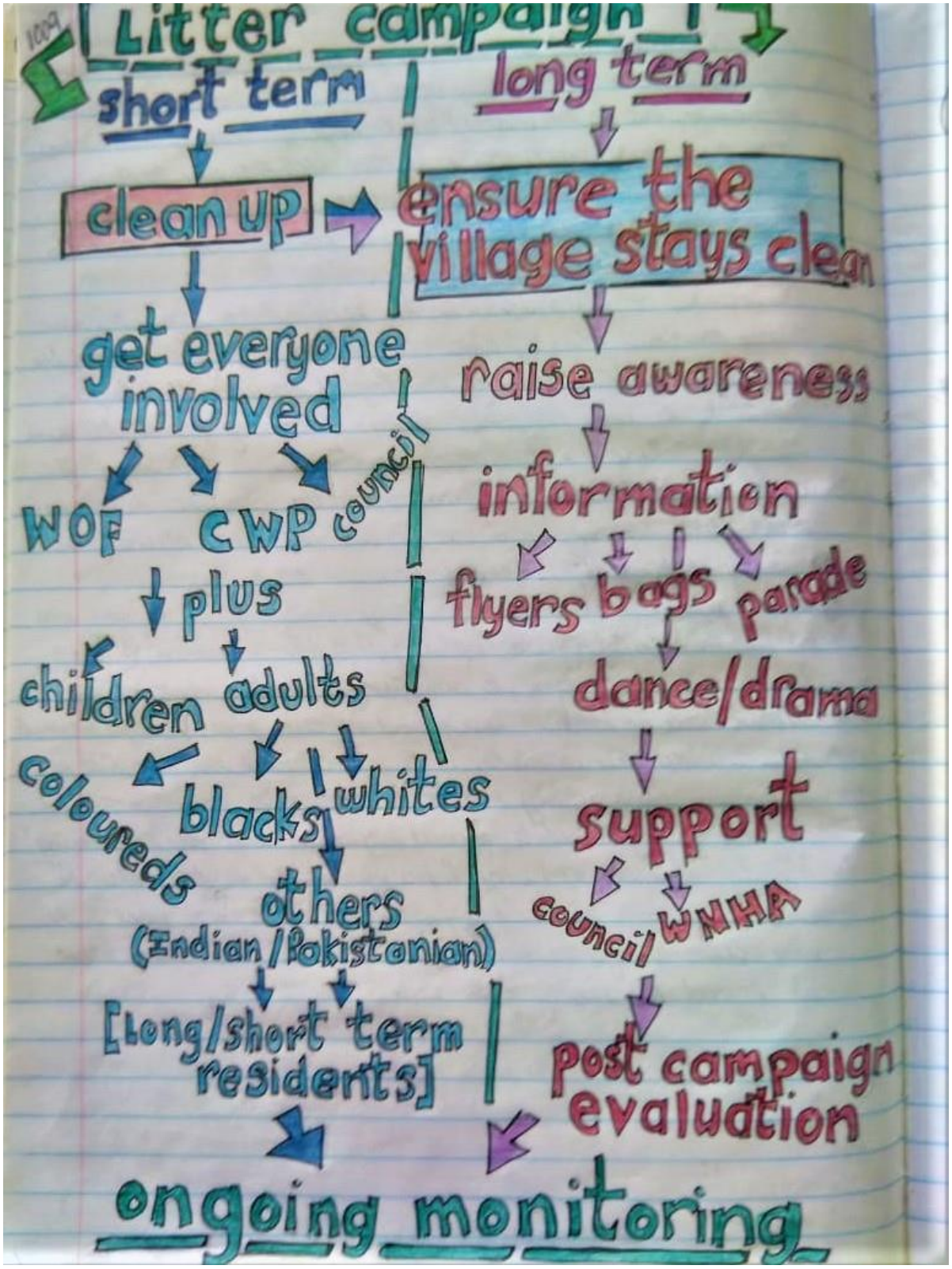

Figure 6.30 Mind map showing the thinking in the planning of an anti-litter campaign

Chapter Seven: Cycle Three



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7.1 Mapping the chapter

The focus of this chapter is the final cycle of action research, which completed the field work for the project. Interventions within this cycle were meant to take place over the course of the first half of 2020 but were disrupted by the lockdown imposed by the COVID-19 pandemic.

Findings from Cycle Two that informed Cycle Three are outlined in section 7.2 of this chapter. These are followed by a description of the interventions undertaken. Section 7.4 discusses the impact of COVID-19 and in section 7.5 the chapter concludes with a critical discussion of learning from all three cycles.

7.2 Cycle Two learning that informed Cycle Three

Key findings from working with adults and children during Cycle Two were the following:

- Children do indeed learn bad environmental behaviour in the home. This was established through observation and through informal conversations with residents.
- The inclusion of adults in interventions broadens the reach of the information made available through a range of activities. For example, the opening of informal conversations with adults during clean-up events afforded opportunities to disseminate knowledge and to gain insight into political, environmental, and indigenous knowledge.

- Adults have more of a voice in the political sphere and therefore are better positioned to make the changes aimed at in this study. Important in this regard is access to adult community-members and council employees and most particularly to women.
- The researcher who engages respectfully with the circumstances of people who live in poverty helps to create working relationships, open communication, and creates opportunities to engage with them in bringing about change.
- Adults enjoy arts-based interventions for example, puppet shows and story-telling. Adults engaging me in conversations after these interventions, showed that both the art forms and the knowledge gained from content presented had made an impact on them.
- There was a distinct need for an outside eye in interventions, since I was becoming too immersed in the creative work.
- These findings were valuable in the context of the theories of deep ecology and eco-feminism, supporting a recognition of the value of indigenous knowledge, of a relationship of equality between researcher and participants (as far a possible), and the inclusion of women in projects such as this, as called for by supporters of these theoretical positions.

It had become clear during the course of the previous two cycles that arts-based interventions with children do engage their interest. Whether such interest leads to behavioural change, and whether environmental awareness has been raised to the extent that was hoped, is less certain. As expressed by the applied drama practitioner from Lesotho who was interviewed during the second cycle of the research, "I always ask myself – are we really reaching them, or are they enjoying a drama for a while? How do you know when you're having any meaningful impact? But they still enjoy the work" (F interview; September 2019).

However, an important finding from Cycle Two was that permitting the children to create their own plays without significant scaffolding to guide their efforts was not productive. Although the children had indicated that they were keen to create and work on their own plays, it was found that they were too young and/or did not have enough experience or discipline to sustain the creation and performance of a play. The Cycle Three play-making intervention described below was thus director-driven, with only some initial input from the children.

Despite there being much reflexivity during the course of the fieldwork for this study, I had become concerned that I was missing potentially useful insights because I was facilitating many

of the interventions and then reflecting on them afterwards. Despite in many cases gleaning additional insight from further reviews of my journal entries, I was concerned that I could not observe comprehensively what was happening in real time. Therefore I took on the function of the 'critical friend' as employed in action research, in order to observe participants working with colleagues, terming myself a self-critical researcher (See 7.3.1.4 below).

7.3 Interventions

The first interventions for Cycle Three cycle focused on water, primarily because the WNHA held the first of what was planned to become an annual event - the Wakkerstroom Water Weekend (WWW). This aimed to raise awareness of the importance of clean water and to test water samples from diverse locations in the village. An additional goal here was to provide ongoing comparative data to inform scientists, who could then make recommendations to government departments.

As for Cycle Two, the interventions described below are divided into those with children and those with adults.

7.3.1 Interventions with children

These were implemented between January and March during the first school term of the year, before the nationwide 'lockdown', imposed by the government in response to the COVID-19 pandemic, came into effect.

7.3.1.1 MiniSASS

I began the term's activities with Ms Garland, the manager of BirdLife SA, by introducing the children to MiniSASS (Mini South African Scoring System). This is a tool developed to monitor water quality over time. In his report to the Water Research Commission, Dr PM Graham, representing GroundTruth, describes the programme thus:

> Reliable indicators of water quality and river health are often difficult and expensive to derive. The development of the miniSASS tool during the late 1990s was a low technology, scientifically reliable and robust technique to monitor water quality in rivers and streams.

Ms Garland and I both sit on the WNHA committee, and were also involved in the planning for the WWW, so we decided that a miniSASS could be an appropriate activity for the children. While this was not an arts intervention, it led to arts-based activities later on.

The miniSASS was held over the course of two weeks with the children divided into groups of six. Using nets, magnifying glasses, and charts provided, the children were tasked with identifying the creatures they could find in their buckets of water which we had fetched from the vlei. The intention was to indicate to the children the variety of life that can be found even in a small sample. Through this the children learned that protecting water is important not only for people and large animals but also for microscopic creatures. They identified a number of these, including tiny water snails, slugs, water nymphs, and whirligig beetles. The children were fascinated by the creatures they found as the following journal entry indicates:

> *The children were most excited by the red worms that were found in the water, and they were proud of themselves when they accurately identified them on the charts provided. One of the children particularly liked the 'jik-jik', as we all decided to call it, which was a creature that moved forward in stops and starts.* (journal, February 2020)

Whether they were able to make the connection between the wetland and the water in the buckets remains unclear, and this possible lack of connection is a concern that is discussed later in this chapter. Both workshops resulted in the same high level of enthusiasm on the part of participants.







Figure 7.1 Children busy with the MiniSASS

7.3.1.2 Water creature puppets

From the miniSASS, photocopied printouts were made of the creatures identified. During the course of the following two weeks at The Potters' Place, the children coloured in the images. These were then used as props for the water production performed by the Litter Lions.



Figure 7.2 examples of the water creature images

7.3.1.3 Galela

Galela, meaning 'pour' in isiXhosa, is a professional play, devised and produced by Wellworn Theatre, and directed by Thembela Madliki. It deals with the importance of clean water, but also has a political component to it. Because of the WWW it was decided to bring *Galela* to

the village for a performance as part of the events planned for the weekend. The following excerpt from Wellworn Theatre's website describes the production:

> Three best friends bravely embark on a project to make their town´s drinking water safe again. They soon discover, however, that they have waded into hot water and that the problems affecting the town dam are deeper and murkier than at first glance. Still determined to make a difference and to secure the future of their friends and family, the trio dive in to fix the mess, proving in spectacular fashion that children with the biggest imaginations will save the world (www.wellworn.org.za accessed 17th Oct 2020).

The cast of three cleverly played all the characters, from the children to the corrupt mayor, driver, parents and school teacher. The story unfolded with the use of song and dance, simple theatrical devices and found objects as props. In the play, the children made a stand, exposed the corruption, and saved the water.

The production was of particular importance to me as I wanted to ensure that the message of clean water went beyond villagers in the higher socio-economic categories, to reach as broad a spectrum of people as possible. I wanted to try to create an inclusive moment in the weekend, where all could attend and at the same time be entertained.

The play was performed three times – first at The Potters' Place, where 100 children watched; second in the eSizameleni Community Hall. Here approximately 850 people attended, mostly children. Both these performances had free entrance. The final performance was for the children of Village Primary, and here the children were asked to pay a nominal fee.

In terms of our objectives this intervention was overwhelmingly successful. Ultimately, we reached over 1200 people, most of whom were children. After the performances, a number of follow-up workshops were held, both at The Potters' Place and with the Litter Lions, in order to establish how much of the message of the play had been understood and retained. The results were astonishing. Children remembered the songs three weeks after the performance. They were able to describe the events of the play by re-enacting the story as it unfolded. They were able to equate events in the play with local issues: for example, they compared the situation of the corrupt government official in the play coercing the driver to dump waste into the river with our local issue regarding the pipeline planned to take Wakkerstroom water to Volksrust.

However, despite the children being able to remember the storyline and the songs, and also being able to make a connection between the play and local politics, one needs to ask whether any of this is likely to result in any long-term change of attitude and behaviour. What can be definitely stated is that exposure to *Galela* motivated a greater number of children to really

learn to act and dance, than had previously been the case. A journal entry that recorded a conversation I had with S and T, two research participants, indicates this:

> *"This is what we have been doing – like this water play; it's like ours," said S after the performance. When I told him that, yes, this is exactly the same as our water play, he said: "But ours is not like this. Theirs is much better than ours. And they are funny and clever. I wish I could be in a play like that". T agreed, and said that one day she wishes she will be able to act in a play like Galela.* (journal, February 2020)

This conversation suggests that there are already children who are enthusiastic about attending arts and dance lessons in future and in developing their creative talents.

7.3.1.4 Litter Lion water performance

In order to reinforce the message of the importance of clean water, it was decided that the Litter Lions would perform a play workshopped and directed with the participants by Ms Hall. It was showcased over the weekend of the WWW along with *Galela*. The following journal entry sums up its intention:

> *Our objective is to produce a dance/drama in celebration of water as part of the WNHA Water Weekend. For the Litter Lion study it gives me an opportunity to celebrate water rather than the usual hammering away on the hazards of pollution.* (journal, 25th January 2020)

Ms Hall began with brainstorming workshops, where the children were encouraged to give ideas and to enact various aspects of the water cycle, the possible creatures that live on or in water and their movements. Since the children had become used to working in this way with Ms Hall, they were immediately able to respond to what was required of them. From these workshops she was able to extract aspects of movement and dialogue that formed the framework of the piece, which she then honed as director.

It was during this intervention that I decided to place myself in the position of 'critical researcher', a variation on the critical friend of the action researcher described in the literature:

> The idea of a 'critical friend' or 'critical colleague' was first recommended by Stenhouse (1975) as a 'partner' who can give advice and is working with the teacher-researcher in the action research. Instead of perceiving the role as an advisor or consultant, the 'critical friends' see themselves as the 'friend' of the teacher-researcher (Kember et al, 2006, p. 464).

Because I did not need to participate in rehearsals beyond simply being present, I was able to observe more than I had been able to in the past two cycles and was able to remove myself from the activity altogether to watch and take notes. This proved to be a useful means of obtaining greater insight into the effects of the workshops than had previously been possible, since in the earlier workshops I was 'in them' so to speak, whereas now I was apart from them.

Ms Hall provided some narration, using a microphone, and music through a battery-operated sound system. Props were sourced from waste material: old tin cups, bowls, a hat stand and empty cold drink bottles, and the completed water creature puppets. The children wore blue t-shirts, donated by a local second-hand clothing shop, and their own jeans.



Figure 7.3 Copies of images for puppets



Figure 7.4 Completed water creature rod puppets

The play began with two children worrying about a lack of rain and therefore no drinking water, followed by the group deciding to make rain. Using empty cold drink bottles they created the sounds of water falling, lightning and thunder. Meanwhile behind them Mr Tshabalala, my research assistant, placed a basin of water, which was 'discovered' by the children when the 'storm' was over. Then, through movement and dance, the audience was taken through the water cycle, from rain running into rivers, ponds and dams, and then into the sea. This was followed by further illustration of condensation, evaporation and rain. In an extension of the miniSASS previously discussed, water creatures found in bodies of water were acted out, and reinforced with images on sticks. The play ended with water being offered to audience members by the cast.

There were two performances, one at The Potters' Place, and one at the WNHA Water Weekend event where results of the water testing were given to residents. Because the play was performed just before the *Galela* performance at The Potters' Place, it provided an opportunity for the professional theatre practitioners to watch, and this had an encouraging effect on the children. The cast of *Galela* were impressed with the work that the children produced and made this very clear to them.

One of the cast members of Galela was so encouraging to the children, and said that he would love to come and see further plays and dances by them in the future. The children were super happy to receive this compliment from a professional actor, whom they had seen performing

in his own play. A said: "one day I am going to be just like you! You'll see, come and see." (journal, 28th February 2020)

The children were inspired by experiencing the results of their own work and then impressed by the possibilities of play-making by watching *Galela*.

It was good for the children to perform for an audience, especially I felt, considering that the audience was made up of their peers. (ibid.)

There were nine days between the two performances which gave Ms Hall and the children an opportunity to make additions to the play. I was unable to attend the final rehearsal at which these additions were practised and was astonished at how well these had been made in such a short space of time. In Ms Hall's view the children had been inspired by their experience of watching *Galela*:

Sue took the children for a final rehearsal to prepare for the WWW performance. In that short time she was able to add two more sections to the piece! She said that she had been able to do this because the children were more focused than ever before, even during warm-up games. She put this down to their experience on Thursday when they watched Galela. (journal, 1st March 2020)

The performance at the WNHA event went well. The children were enthusiastic and energetic and the audience, made up of adults, seemed most impressed. There were many congratulations extended afterwards. A comment made by a community member who is particularly supportive of this project was that "These children have come such a long way since they first performed. Well done! The message was clear, and the children clearly had a great time."





Figure 7.5 images from the WWW performance of the Litter Lion water play

These productions can be viewed through two different but connected lenses: performance efficacy and performance affect. Performance efficacy relates to what is achieved in response to the performance – in this instance, meaningful changes in environmental practices on the part of those who perform and those who experience the performance. Performance affect refers to the aesthetics of the production and is linked to the affordances or meaning potential of the work. Hurley and Warner (2012) ask: "Which cultural forms pack the most affective power? Which emotions are likely to marshal and mobilize spectators into collectives and communities?" (p.99). While these questions are difficult to answer, there are a number of reasons why these applied drama performances were an important part of this study:

- A clear and concise message about the importance of clean water reached hundreds of people, both through *Galela* and the Litter Lions;
- Audience members from the higher socio-economic community of Wakkerstroom were able to experience first-hand the efficacy of applied theatre, both in terms of *Galela* and the Litter Lions play;
- Information was retained by the children, who could remember events in the play and the songs in *Galela*, long afterwards;
- The children were exposed to the affordances of applied drama - until then, they had been making their own productions, but when they saw *Galela* they understood a broader application of the art form and the possibilities for them in their own future play-making.

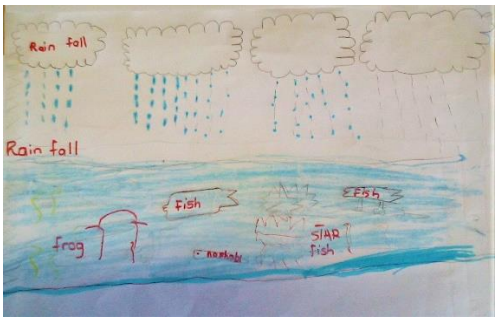
7.3.1.5 Drawing

Drawing was used twice in interventions in Cycle Three. The first drawing activity was conducted after the miniSASS, and was held at The Potters' Place.

The activity began with the children naming various uses of water, which they showed individually using mime, with their friends having to guess what each use was. The same process was used for the water cycle, followed by birds, animals and insects that live on or near water. From this rather energetic process, the children were invited to choose one or two of these components and make a drawing. Below are some of the drawings that were the result of the activity.









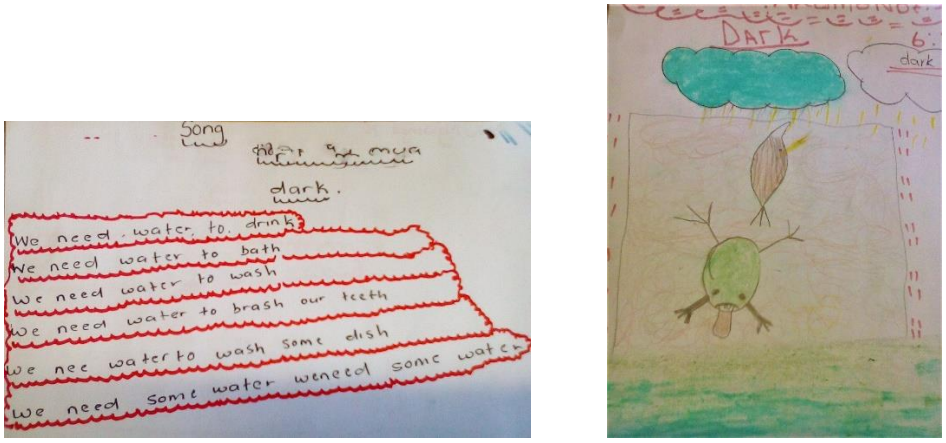


Figure 7.6 Some of the work that the children produced on the uses of water and the water cycle

The variety of 'topics' presented in the introductory drawing stimulus activity may have contributed to a greater variety in the forms (song lyrics, water cycle chart, active and static representation of marine and human life) and content of the responses than had been the case during Cycles One and Two. It is also possible that the children had become more confident in choosing a preferred response.

The final intervention that I was able to conduct with the research participants, before the lockdown imposed by COVID-19, was somewhat unsuccessful since the final art work did not achieve the outcome that I had intended. The intention was twofold: firstly I wanted to establish again, through graphic representation, what the children had retained from the previous interventions that had focused on the water cycle; secondly, I wanted to demonstrate a different way of art-making. This entailed drawing with wax crayons and then washing over the drawing with watered down paint. The wax repels the paint which then exposes what has been drawn in more detail.

I laid out a long stretch of paper on the floor and taped it down. The instruction was that we would all make one long drawing about water. It could be anything that they remembered from the past few weeks' workshops. Some of the children copied the water insects and others drew rainbows and suns, with the result that there were water creatures floating in the sky with rainbows and suns everywhere. (journal, 16th March 2020)



Figure 7.7 Details of the long drawing of the water cycle

Unfortunately, the children were unable to understand the concept of one communal drawing, which may simply have been due to inadequate instructions on my part. Then, when we washed the paper with blue paint, we discovered that the paper was too thin to allow the colour to come through, and care had to be taken that the paper did not tear while drying. The paint was too watered down to expose the image as well. It was only in retrospect that I realised that I should have done a 'dry run' prior to the intervention, but by then it was too late. Again, on reflection in my journal, I put some questions to myself.

> *Were my instructions unclear? And even if they were clear enough, did Sbu have enough visual literacy to translate the instructions for me?* (journal, 10th May 2020)

With reference to Piaget and other theorists of child development, were some of the children unable to grasp 'the bigger' picture both visually and psychologically? Bland (2011) quotes Walker's observations that "by ages 7-9, 'children have developed a graphic language … including specific symbols and rules of spatial organization" (Walker 2007, in Bland 2011,

p.97) and at around age 9-11 they strive for greater accuracy. One wonders if the studies on which such observations were based have taken into consideration children such as the research participants engaged in this study, who have sub-standard education and little parental involvement in their development.

However, everyone enjoyed themselves, evidenced by the excitement when we all stepped back and looked at the final drawing. This shows once again that children, and certainly the children participating in this study, are keen to be art makers. Mr Tshabalala contributed enthusiastically to the work. His comment was recorded in the following entry:

> *"But it's not so bad, Carol. It looks great. I like it. The children like it. It looks good on the wall. We can see the animals, the water, the river – all that."* (journal, 16th March 2020)

These two interventions both showed that the participants had an understanding of water and its roles in our lives and that they had been able to express both their understanding and, in some instances, their personal views in a range of modes.

7.3.1.6 Other interventions

As had been the case with the previous two cycles of action research, there were other interventions that had an impact on the work, mostly in the form of being able to reach a broader population than just the research participants. Again, these were limited by the imposed lockdown, but they are described below.

7.3.1.6.1 Site visit to the vlei

During one of the rehearsals for the water play there was a discussion around the children's experience of the wetland. I erroneously had believed that they had all visited the area at least once and having missed such a vital piece of information throughout the project was serious. A serious error on my part was to ignore the possibility that the very natural environment that I was trying to save and use to contribute to raising environmental awareness in the children was unfamiliar to them. My distress at this information failure was reflected in my journal.

> *What's the point of trying to instil a love of nature, value for the vlei, understanding of the value of tourism, when they have never had a real experience of it?* (journal, 27th January 2020)

Had I established this during the reconnaissance phase of the study I might have planned some of the interventions differently. The questions I then put to myself were, how do the children

perceive nature, how do they feel about nature, what do they think about nature, if they think about it at all? Brisson (2017), referring to Geng et al. (2017), states that

> [t]he way we feel about nature has a direct impact in the way we live our everyday lives. Our conception of nature is of great significance, because it has a direct effect on how we treat our environment, and to what extent we engage in environmentally conscious behaviours (p.23).

Having no green spaces to play in, the children's main entertainment is through television and social media. One parent had this to say in an informal conversation: "I would rather my child stayed at home and watched TV than be running around in the township where I don't know where he is or who he is with". She had recently had electricity installed in her RDP home, and had cut back on other purchases in order to buy a television set for her family. When I noted that there are no parks allocated for children's recreation, she shrugged and said there are continual promises made by councillors but they always come to nothing (informal conversation 17th November 2020). With children continually exposed to the offerings on television is it any wonder that they are more intent upon amassing wealth, than fostering a clean environment? To refer once again to Hart (1999), the following statement is certainly true of the children in eSizameleni:

> Fostering a sense of place and an affection for the local environment and community in childhood seems an overwhelming task when one thinks of the enormous and expanding power of technology and the mass media to seduce young children into desiring all that they do not currently have (p. 193).

Von Boeckel is of a similar view:

> Living in today's world, we are out of direct contact with the realities of earth and water. Instead we deal with the reality of technical objects and instruments that more and more constitute our environment (1998, p.41).

I had assumed that all children who live in a rural area would have at least some level of connection to nature that city children do not have, and that these rural children would have less connection to social media and technology than their city counterparts. This was an erroneous assumption. For these reasons, a plan was made to take the children to one of the bird hides. Even though there was no intention to go near the water, I was concerned about the possibility of children falling in, so great care was taken in the plan for the trip. Three adults, wearing safety vests, accompanied the group of about fifteen children. The children were expressly forbidden to go into, or close to, the water.

Hart advises that "[o]ne should aim to focus the attention on each of the senses – listening for noises, smelling of pleasant and unpleasant parts of the environment" (p. 179). Therefore, in

the bird hide, the children were instructed to whisper, and then to see what birds they could identify using the binoculars borrowed from BirdLife SA. After a few minutes of bird watching the children were asked to close their eyes and simply sit still and listen to the sounds around them. They were all very attentive and sat very still during this short meditation. After approximately five minutes I told them to open their eyes but to continue sitting still. I wanted them to hold onto a sense of peace and wonder that nature can afford to those who are willing to be still. After some time the children were taken back to the vehicles, with small flowers and insects being pointed out to them along the way.

Of 'trails' or 'sacred walks' Von Boeckel (1998, p.84) quotes the advice given to educators by Jean-Jacques Rousseau in the eighteenth century: "[i]t is nature that shows the way. Do not give your pupil any kind of verbal lesson, he ought to receive them only from experience" (p.92). I thus specifically did not ask the children what sounds they heard in the bird hide, or even what their experience of the fieldtrip had been. I wanted them to own the experience themselves, and embody it, which meant that it is impossible for me to know definitively what their thoughts were on the experience, or if they made any connection between any of the interventions and what they observed during the visit. What was clear however, was that the children enjoyed themselves thoroughly, and that was enough for me.

Regular trips into nature will be prioritized in future. This, I hope, will ensure that as the children grow older a love of nature will grow through the various experiences they have of it as they move into adulthood. After all, a love of nature, which then instils a sense of custodianship of the natural environment, is what deep ecologists and eco-feminists aim for.

7.3.1.6.2 Reading group

A child psychologist, who lives in Wakkerstroom, began a small reading and vocabulary development programme with children in the area. She aims with this programme to stimulate children's vocabulary development, since she has identified this as a problem which affects learning across the curriculum. Her modus operandi is to select one word a week, have the children look it up in a dictionary, and then write sentences with the word, accompanied by drawings elaborating on concepts and terms.

At her request I attended her group one Friday afternoon. The intention was for me to focus on the word 'litter', and then hold a discussion on it. We then took the children out into the road and conducted a clean-up, which included spaces around some of the children's homes and a local tavern. I learned from watching the children trying to read, and by the manner in which

the reading group leader explained words to the children, that I had been unaware of the depths of the problem created by sub-standard education. What follows is a journal entry after this experience.

> *Most of the children can't grasp the representational notion that letters, placed carefully next to each other, not only transfer to a sound that has specific meaning, but that also refers to a concrete thing, a concept or time/place in the world. Simply put there is a leap of understanding that say, the word 'dog' represents an animal that is usually in the home, barks and can bite. Many of these children cannot make the connection.* (journal, 10th May 2020)

Many of the children selected to be research participants in my study came from more affluent homes than most of the reading group children. This meant that they possibly had more stimulation in the home and more support for their linguistic and general cognitive development, but time spent with the reading group led me to consider whether or not I had been using language and introducing concepts that the research participants could understand. If not, being half way through the final cycle of action research made it too late to take this possible limitation into consideration. However, it did mean that interventions after the study would take this into account.

7.3.2 Interventions with adults

Plans for a big education roll-out, which would include members of the local municipal authority and other adult members of the communities, were in their early stages in March 2020. These had to be put on hold. However, because of relationships built up over the course of the fieldwork, some work with adults was able to be done during this difficult time. Through careful negotiation with all role players in the field a little further research work was able to be completed between September and December of 2020.

7.3.2.1 Questionnaires

As part of the work with adults in December, I decided to send out another questionnaire further to the one I had used in Cycle Two. The objective of the survey was to establish what awareness adults had of the new recycling depots that had recently been set up and how many people recycle.

Thirty questionnaires were distributed by hand and all of them were returned. Twenty-two people had lived in Wakkerstroom for ten years or less, three had been residents for twenty years or less, while four had been resident for twenty or more years. Only ten of the respondents

were male, and the age group was predominantly older, with eleven respondents being between the ages of fifty and sixty. Nine were over sixty with the remaining between twenty and forty. Since the survey was anonymous, and I was not responsible for handing out the questionnaires, I was unable to ascertain the racial demographics of the respondents, though I did not consider this to be important.

Sixteen respondents knew where the new glass recycling drop off point was, with one person not responding, while thirteen knew where the recycling depot was. Again, one respondent did not answer this question. Interestingly, only eleven respondents said that they made use of the drop off points, which meant that knowing about a recycling depot does not necessarily mean that one would make use of it. Of the respondents who stated that they did not use the depot, two said that they would if they knew where it was. Most of the respondents had heard about the depots by word of mouth, with nine having been reached via WhatsApp. Only one person had received the information via email. Ten stated that they had not heard about the depots from any source. The final question asked what respondents do with building rubble. Fourteen said that they take it to the dump, and seven said they ensure that the builder removes it. Five said that they reuse it in further building, and one said that he puts it on the pavement. One said that she does not generate rubble.

Within the constraints of lockdown a bigger outreach was not really possible, which was unfortunate. There were some interesting points that did emerge though. It was surprising to me that so few respondents had heard about the depots via email, since I had sent out many emails to this effect on the extensive databases that exist in the village. That more people had been reached via WhatsApp showed that this is a more effective manner in which to disseminate information through the communities, and one that I will be making use of in the future.

The respondents were invited to add further comments on the back of the questionnaire. Disappointingly only three people added comments, which follow:

Respondent 1: The extent to which the village coordinates recycling could be improved. We merely rely on C and S and the good will/decency of people to take things to them. Municipality and/or volunteers/CWP could help with collecting more and distributing to the aforementioned collectors. Alternatively, as envisioned by IM some systems could be set up at the dump, but this may cause tension between the collectors, because they would both want to benefit from the municipal drop off.

So essentially the private collecting works in a way, but it is making the overall recycling possibilities smaller than they could be.

Other programmes could be started. For example, more eco-brick making and something with polystyrene, but sadly this too requires education and coordination and probably financing for a place/space.

Respondent 2: I would never put rubble on the pavement! What happens to it then? It is bad for the environment, I think. If I can't reuse it for other building then I take it to the dump, even though I don't like doing this. It would be better if we didn't make rubble in the first place. Also, how can I be sure if the builder takes the rubble to a proper place. Maybe he dumps it where he should not, because he doesn't care. There is so much rubble at the old quarry. I know they [builders] just dump it there. It's wrong. Just because you can't see it, doesn't mean that it is right.

Respondent 3: Really, we all know S, and he is a mess. His dump site brings rats and snakes. I live there and I don't like it.

These three respondents showed three rather differing opinions on issues raised by the questions that were put to them. The first of these clearly knew who is involved in recycling and where the recycling depots are, and raised some interesting points. The suggestion of further work by the municipality, organizations and individuals, and the understanding that there are issues that may impede this, highlight the challenges that are faced in the village.

I was glad to have learned from respondent two that there are people who are aware of the hazards of building rubble in the natural environment. Since the scope of this study did not extend to the effects of rubble, I had not focused on this besides recording where it was dumped. This awareness was encouraging to me, especially since the respondent was also aware that builders are often responsible for dumping rubble in inappropriate places, and reiterates my view that people with vehicles are happy to dump waste where it cannot be seen, rather than make the extra effort to dispose of it properly.

Respondent three seemed most against the depot in eSizameleni. Prior to the collaboration with S however, I had spoken to residents around his home and his depot, with the specific intention

of establishing whether they had any objection to villagers adding to his recyclables. Nobody expressed any objections.



Figure 7.8 The recycling depot opposite S's home

7.3.2.2 Champions of the environment

As was discovered during the reconnaissance phase of this study, many projects in the past had failed due to the loss of a community or project leader. Dr Gerber, the dominie attached to the NG Church, who passed away in 2020[4] had emerged as a quiet supporter of this project through assistance gained via the church. His death left a big gap in the community and in the support for this study. The important learning here is that when a project champion is no longer available it is vital that a replacement is identified to fill this gap, in order for the work to continue. In the past the result of a loss such as this meant that the project stopped and therefore failed. While finding a replacement to fill the gap left by Dr Gerber may not be possible, I intend to seek champions of environmental conservation activities on a regular basis, because

[4] Dr Gerber's wife has agreed to his name being used in this thesis.

it became apparent during the fieldwork that champions of the environment are to be found, if one searches for them. Engaging in collaboration with these champions ensures that projects are inclusive and local knowledge can be drawn on to good effect. This confirms the need to engage with indigenous knowledge as suggested by deep ecologists, ecofeminists and social change theorists.

7.4 Impact of COVID-19

Poignantly it seems likely that the origins of the pandemic lie in human interaction with the natural environment. The following statement by Enric Sala in his National Geographic article entitled *The Cost of Harming Nature* highlights that:

> COVID-19 is yet another reminder that conservation is not just a luxury for rich countries or a romantic ideal. Our very survival depends on our being better members of the biosphere, our larger community (September 2020, p.16).

The pandemic had an impact on both the final cycle of the action research project and on my own physical and mental health. These are discussed separately below.

7.4.1 Impact on the research

Further research activities planned for Cycle Three included a series of focus group discussions in which research participants, both children and adults, would have been engaged in conversations around what they had experienced during the life of the research project. These discussions were to have been followed up with participants' journaling and drawing. As a result of the Covid 19 pandemic lockdown rulings none of this was possible and thus the level of children's environmental awareness at the conclusion of the intervention could not be compared with data obtained from the reconnaissance phase of the study and from each cycle. It was unfortunate that these final activities were prevented by the pandemic, but the possibility of further work at a later stage still exists. While it will not form part of this study, it is hoped that when community projects are able to resume there will be on-going reflection and learning from them.

7.4.2 Personal impact

The physical effect of contracting the virus myself and the emotional strain of lockdown impacted on the eco-anxiety that I was already suffering. Although this was to have a very serious effect on my psychological well-being, it also provided learning that could be taken into account when research in this field is considered by others, or by myself if I continue this work.

7.4.2.1 Illness

During the first wave of the virus only six confirmed cases were identified in the village, and one of these was myself. One man who became ill had contracted the virus while in hospital for something else, while the rest of us had no way of identifying where we contracted it. Of the six of us, one lives in eSizameleni. None of us became dangerously ill and all recovered well. It was the exhaustion that the virus caused that was to have the worst impact on me, since this exacerbated the eco-anxiety that I was already suffering.

7.4.2.2 Eco-anxiety exacerbated by the pandemic

The eco-anxiety that affected me during the course of the fieldwork for this study, worsened dramatically during the lockdown imposed by COVID-19. It became an existential crisis that was mirrored in many of my friends who work in environmental conservation.

> *Pihkala refers to 'ecological grief', equating it to other forms of grief that are not fully recognized – loss of an unborn child, death of a same-sex partner, loss of a pet. He refers to these examples as 'disenfranchised grief'. He also recognises it as an existential problem, and I think herein lies my personal problem. Environmental damage and the overwhelming sense of a problem that is too big to solve and which by all accounts will lead to certain death, brings to the fore existential questions – what is it all about? What is the meaning of my life? Where is the good in all of this? Pihkala advocates a return to spirituality and theology for comfort, but how do I find comfort in the place which deep ecologists are critical of as responsible for environmental degradation in the first place?*
>
> *A new normal goes back to littering and dumping, pollution in the air, and back to the same old disgusting behaviour the world over, and a return to the Litter Lions. What is the point? It all seems so pointless and meaningless. I am bone weary of trying to make a small difference.* (journal, 20th May 2020)

Prior to lockdown it was impossible for me to attend any village function, or even to go shopping, without being accosted by someone who wanted me to clean up an area, complain about a tavern owner and mess generated, or simply to open up a conversation about why people litter. These conversations were usually deeply negative, highly politicized, and often racist in nature.

I had not realized how exhausted I had become by these complaints and queries prior to lockdown, but the realization of this, and then the easing of restrictions, made me feel worse, since I then faced a return to a bombardment of negative energy and demands for action. Finally I sought the help of the chairman of the WNHA and his wife, both friends, both attached to the church that I attend, and both invested in the work that I do. They advised me to step away from the work until 2021, and to keep reminding myself that there will always be litter, there will always be dumping, and there will always be people in a community who make demands and behave badly, no matter where I live. I was reminded that my study had never aimed to change the behaviour of the entire village over the course of three years, but simply to change the behaviour of a small group of children.

This experience of dire eco-anxiety and despair brought on by the research, and then impacted on by COVID, highlights the importance of protecting the researcher in the field. It is likely that several kinds of research may have psychological effects on the researcher – for example, research with victims of human trafficking. The overwhelming sense of helplessness that research in environmental and other fields may induce may be even more dangerous at a time of global crisis. According to Kelly (2017) "[i]ntense feelings of being overwhelmed or burned out are incredibly common for those who consider themselves to be environmentalists, environmental activists, or for those who are currently studying or have careers in the environmental field …" (p. 8). In the same publication Kelly states that:

> Although the value of eco-anxiety has been recognized and explained by various independent sources (see Edwards, 2008), the term has not yet found its way into academia. Both the academic and psychological communities have much to gain from a deeper understanding of the root causes, manifestations, and implications of eco-anxiety (Kelly 2017, p. 3).

7.4.3 Community upliftment enabled through the study during the pandemic

As Zipplies (2008) has so accurately stated: "The unemployed and the poor are the most vulnerable to the impacts of climate change, lacking the resources and skills required to adapt" (p. 65). If we acknowledge that the pandemic conceivably emerged due to the impact of humans on the natural world, Zipplies' comment is true of the poor and unemployed who are suffering the most as a result of COVID-19. Living in a rural area, and therefore living closer to people who are compromised by poverty than one would in a city, the suffering that has occurred in Wakkerstroom-eSizameleni is highly visible to me.

Since many people in Wakkerstroom-eSizameleni lost their jobs because of the pandemic, and many of those people were already living close to the breadline, the WNHA decided to set aside funds for job creation once restrictions were eased late in 2020. Relationships nurtured during the cycles of fieldwork enabled me to identify relevant people for specific jobs. These projects have assisted a few people to overcome the devastating poverty created by COVID, and also to further my work against littering. The projects are discussed separately below.

7.4.3.1 Construction of the glass recycling drop off point

C had been collecting glass for some time and had identified a space adjacent to the town dump for people to drop off glass recyclables. She had had a sign made for this and had contacted various residents of Wakkerstroom with a request to alert the village to the new drop-off point. Unfortunately this site was not fenced off, neither was it possible to monitor it, which resulted in it becoming a hazard, with broken glass everywhere and other waste being dumped there making it an eye-sore. C then approached me and asked if I would be able to assist in fencing off an area for her.

The construction of the fence requested by C for the glass recycling depot was facilitated through the WNHA job-creation programme. Having established that the site adjacent to the dump was unsuitable for the depot, we decided to move the depot to her garden for this. Together we marked out a space and discussed how this could function. While the work of collecting glass, crushing it and communicating with the recycling company that picks it up, is entirely run by C, and generates an income which supports her family, she nevertheless still had to ask permission from her husband to erect the fence. With her glass recycling initiative, she supports her two unemployed adult children, five of their children, two of whom are toddlers, and her husband. Family structures such as C's are generally the norm in eSizameleni, and yet the women, generally the financial support of the family, remain subservient to the men. This is exactly what the proponents of eco-feminism are speaking out against.

However, C's husband gave his permission, and in a few days a fence was erected. For this project, cement, wire, droppers and a pedestrian gate were purchased through funds set aside by the WNHA committee. Four unemployed men were engaged to erect the fence. It was through the study that I knew of these men; I knew their circumstances and that they were seriously compromised by the loss of work, which had been intermittent at the best of times. Notices went out to all members of the community, with directions as to where the new site is and instructions as to how the system works.

There are a number of other points that are important about this request by C for assistance. Firstly, it was evident that C felt comfortable about asking me to assist in this project as a result of her knowledge of the environmental activities I had been engaged in with the community. Important too, was that she wanted to know whether it might be possible to use eco-bricks rather than wire to build the fence. I had not discussed the benefits of building with eco-bricks with her previously but it was clear that she had learned about them from someone else in the village. It transpired that she had been collecting non-recyclable waste for eco-bricks and cold drink tops for a while, for a friend of hers who works as a domestic worker for a woman who collects tops and builds eco-bricks. C had no idea why her friend was collecting these items of waste for her employer, but happily contributed anyway. It was only when she investigated this somewhat strange request for help from her friend that she learned about the tops and tags wheelchair and the eco-brick programmes. The fact that she was enthusiastic about building with eco-bricks showed that at least one person has been able to be reached with this cheap and available means of building, and it was disappointing that at the time we did not have enough eco-bricks to use for the demarcation.



Figure 7.9 The glass drop off point, and a section of the fence

7.4.3.2 Installation of swing bins

As a result of my portfolio of litter monitor on the WNHA committee I had received many complaints over the years, about areas that had substantially more litter than other areas. I

decided therefore to install more swing bins as part of the job creation initiative. (I had already installed a few of these, but this had been with voluntary labour.) Again, materials were purchased with WNHA funds, other than the bins themselves which were donated. Four bins were erected and this provided a small income for six unemployed residents. On final construction I sent an email to the municipal manager so that he would be able to instruct the employee responsible for emptying the bins, and gave him clear directions as to where the bins were.





Figure 7.10 Bins prior to installation and an installed bin

Unfortunately, in the course of installing the bins I was accosted by an unemployed resident of Wakkerstroom, on his way to the tavern at 9am, and an argument broke out. I suffered severe verbal and some physical abuse. It transpired that this particular man is known in the community as Mal M (Mad M), since he regularly smokes marijuana which makes him aggressive. Somewhat comforted by this information, in that it was clear that I had not

precipitated the attack, the trauma that I nevertheless subsequently suffered exacerbated the eco-anxiety that had already become a serious problem for me.

7.4.3.3 Eco-brick making

With the financial contributions of a few residents of Wakkerstroom, who were concerned about the suffering of many people in eSizameleni, a number of people were employed to make eco-bricks. While I am against payment for construction of eco-bricks, since my view is that people should want to reuse non-recyclables because it is the right thing to do, in view of the financial suffering that occurred during lockdown, I agreed that such payment should be made and thus R10 was paid for each eco-brick completed.

Approximately 300 eco-bricks were made during this time, and this achieved more than just providing some income to the impoverished. Since the equivalent of one full black bag of waste is compacted into one eco-brick, this project reflected the removal of 300 black bags full of waste from informal dumps - a substantial amount of waste that was taken out of the natural environment. Further, it has already produced enough eco-bricks to build all sorts of things, such as more taxi benches and in future the bricks may be used to build playground equipment. Below is an image of some eco-bricks that were made in 2020.



Figure 7. 11 Eco-bricks made during lockdown

Another interesting piece of information emerged during this process. One of the men employed to make eco-bricks was reticent to use non-recyclables from the waste lying around

eSizameleni, preferring to collect waste from the town dump. When asked why this was so, he said that people mock him in the township. This was not the first time this had been reported to me; the first time was during Cycle One when the children said that they would not clean up without me for fear of being teased. Could this mean that any efforts to clean up the litter, unless part of a formal event, would be a cause for mockery, even for an adult?

7.4.3.4 Recycling depot in eSizameleni

Although not specifically a project that was enabled by the pandemic, the new recycling depot was an offshoot of the glass recycling initiative described in section 7.4.3.1. S is a waste picker living in eSizameleni who, I discovered, has a large recycling concern which he runs from the field opposite his home. I had often seen S, since he passes my home twice a day en route to and from the town dump. During prior conversations with him I had come to know that he is involved in recycling, but I had no idea just how expansive his enterprise was until I visited him.

This visit began a conversation that initiated collaboration with S to the benefit of the broader Wakkerstroom-eSizameleni community. Since the closing of the recycling depot at BirdLife SA many people had asked me if there was a possibility of an alternative being offered, and this gave me the opportunity to provide it. Directions to S's recycling depot were sent out via social media and via email.

The benefits of this collaboration have been many. The provision of another recycling depot enabled those who previously recycled, to resume recycling; additional people contributing recyclables to S's depot assisted him with his work; and, importantly in my opinion, it contributed to integration between the different socio-economic and racial groups, that are so separate in this village. As there were many 'white' people who had never ventured into eSizameleni prior to taking recyclables to the new depot, this undertaking contributed to my aim of promoting the inclusivity and equality that deep ecologists and eco-feminists suggest should play a role in the alleviation of environmental degradation.

It was subsequent to this that I circulated the questionnaire on the awareness of these recycling initiatives (see 7.3.2.1 above), as a final part of the research for this study.

All the above-mentioned positive outcomes during the period of the Covid 19 pandemic relate to aspects of development theory. For example, Swanepoel and de Beer (2006) suggest that community workers should "have and show compassion for people who are suffering in

poverty" … and that the leader of community projects should "[r]egard yourself as the people's servant and supporter" [and] "[a]lign yourself with the people's success" (p.52). I argue that

it was the relationships that had been developed over the course of the activities in each action research cycle that enabled identification of the individuals who then participated in community programmes. I further argue that participation in the arts-based interventions contributed to community-building.

7.5 Emerging changes in environmental practices

Over the course of the fieldwork for this action research project it was very difficult to establish whether there had been any change in the 'environmental behaviours' of the children who were the main research participants. While some indication of attitude change emerged during discussions and through performances and artefact making, this was countered by the children's continued littering practices. A number of events occurred in September 2020, however, which are suggestive of changes in attitudes and behaviours on the part of some adults and some children. These are described and discussed below.

7.5.1 Clean up drives initiated by research participants and champions of the environment

Because the CWP workers were unable to work during lockdown, pollution in eSizameleni had become much worse. For reasons unknown, the CWP workers did not return to work when restrictions were eased, and the situation became dire. The CWP supervisor, mentioned previously as being identified as an important champion of the environment, approached me to ask if we could arrange clean-up drives. Over the course of the following two months various clean-up events were arranged, in which the village was divided into sections and cleaned by volunteers.

One of the clean-ups, arranged by the psychologist who assists children with reading, was, with the assistance of the CWP supervisor, held in her area. Children from the reading group, and other children and adults who were recruited, together cleaned up the litter around the local tavern and the adjacent streets. Those who were unable to attend during the time arranged, cleaned up around their homes when they could. Over eighty bags of waste were collected altogether during this clean-up.

On an occasion when I was driving through eSizameleni, B, one of the Litter Lions, stopped me. He asked me to take him to a place where he wanted to show me something. B took me to an area where the dumping is always particularly bad and where it had worsened during

lockdown. “What can we do about this?” he asked, “When can we clean this?” This was meaningful in so many ways. This child had joined the Litter Lions when it was first formed, before the group became part of this study. He had lost interest, then returned, lost interest again, and finally had participated enthusiastically during the WWW performance. It never occurred to me that he would become engaged as an active citizen and, in fact, I had despaired over this child. He is bright and articulate but was insecure about his artwork and had been reticent to speak up during interventions, at times becoming aggressive and sulky. He was also the boy who had been the only participant to confess to dropping his snack packet on the ground if he was unable to find a bin. It was therefore a great surprise that he had now become a possible champion of the environment as he grows into adulthood. On reflection in the journal, I wrote the following;

> *There are three important things that this meant: 1. He recognizes the mess and the need to clean it up, and this means that, with this boy at least, my work has made an impact; 2. He didn’t say ‘how can we clean up’, rather he said ‘when can we clean up. And this means that, whether he was going to succeed or not, his intention was to clean up; 3. He has agreed on a date and a time, which we set then and there and suggested that he will rally his friends. This means that through him awareness is raised in others, which was a primary objective of this study. Now this is of huge importance to me, because it has shown at least a small measure of success in my research.* (journal, 4th September 2020)

We held a clean-up the following Saturday. At first it was B, Ms Hall, Mr Tshabalala and myself who worked, but soon a number of children were drawn into the activity until we had a team of approximately twenty children, aged from four to fourteen, assisting. It was very rewarding to see them working so hard and committing their Saturday morning to this activity.

During the course of the morning two events occurred that were meaningful. The first one was when a man teased the children, saying that it was impossible to clean up the mess. B responded by telling him that “at least we are trying; what are you doing?” B was visibly distressed and mumbled something to his friend in isiZulu. When I asked S to translate, it transpired that he had said: “I love my planet and I don’t want to see it like this.” A second noteworthy event occurred when, during the course of the clean-up, a man came with his wheelbarrow and seemingly without noticing the activity going on around him, was about to dump the contents

of the wheelbarrow where we had just cleaned. An eruption of indignation from everyone stopped him in time.

We were able to fill twenty-six black bags that morning, plus three bags of recyclables. Unfortunately, the difference in the mess was negligible but the children were keen to return and continue the following Saturday, which we did.

This event also resulted in a serious ethical dilemma for me, as is described in a journal entry.

> *Now here's a dilemma – we were under the impression that there was no water there, and our intention was to clean the area before the rains came and washed all the waste into the river. But, as we worked, water began to run; there had been water under all that mess all along. The dilemma lies in the fact that I was expressly forbidden to take children into water, both by the WNHA and the Wits ethics committee. What do I do? My entire doctoral study is based upon trying to instil a sense of care for the environment, and when one of my research participants decides to organize a clean-up, and it results in freeing up a clogged waterway, what do I do? Do I instruct all the children to move away from the water, and end the clean-up, or do I stand with the children in wonder at the success of good work, enjoying the sound of running water? The children found a little crab and a strange little fish – a sort of barbel-shaped creature, no longer than a finger. Their excitement and curiosity was palpable, and despite what I expected them to do, which was to kill the creatures, they carefully put them back into the water.* (journal, 13th September 2020)



Figure 7.12 Children cleaning up



Figure 7.13 Images showing the waterway once it was clean

The fact that these two, one a champion of the environment and one a young research participant, contacted me in order to assist in cleaning up the village, suggests a small measure

of success, in that at least one adult and one child showed a marked change in environmental awareness and behaviour.

However, S was not the only child who indicated that the interventions had achieved some success. A further clean-up that was initiated by the Litter Lions came as a huge surprise, and it was related to me by Ms Nsibande, the director of The Potters' Place. Excitedly I wrote the following in my journal:

> *Charity told me that the grounds man at the primary school came to her one afternoon. He said that when he had come to school early that morning there were children cleaning up the school grounds, sorting through waste and taking the full dustbins out onto the pavement for collection. When he asked them what they were doing they told him that they are Litter Lions and they belong to The Potters' Place, and that they've learned that it's important to keep the environment clean. This is the most important journal entry in all the time that I have been doing research for this project. It suggests that I have been able to make a difference in behaviour towards environmental good practice in these children. And importantly, this came from work done with the children directly through the arts, and not with the inclusion of adults as was identified as a need for the success of this project at the end of cycle two*. (journal, 31st January 2020)

This suggests that the arts can make a difference. It also suggests that it is possible to identify and nurture champions of the environment, both adults and children, if one is prepared to search for and nurture them.

There is, of course, the understanding that a few clean-up initiatives will not solve the litter problem. Continual clean-up events will have to be initiated on an ongoing basis until people learn not to litter. However, it was meaningful to me that these clean-up events would not have been possible without the champions of the environment, both children and adults, that I had identified and nurtured through the course of the fieldwork.

7.5.2 Selling items made from waste

The member of the Litter Lions who had made bracelets and necklaces out of sweet wrappers during Cycle Two, continued to do so during Cycle Three. She made a substantial amount of money from this, and was able to save up and purchase a new pair of shoes. Unfortunately, this endeavour was simply to generate cash, and although this is commendable and shows that there

has been learning through the interventions in this study, it also shows that environmental behaviour has not changed in this child, which is seen in the following journal entry.

> *T went to town to deliver bracelets made from sweet wrappers to W, and while she was there, W saw her drop chip packets on the pavement. As much as she has made R800 from re-use of waste, only waste that has value is considered. Dropping of litter by children is really a sub-conscious thing – I am convinced of that. I don't think they realise that they are doing it.* (journal, 16th March 2020)

This specific child, however, is particularly good at visual art, and has indicated that she wants to continue attending art classes with me. I hope that eventually, through continued engagement, a change in her littering habits can be made. Importantly too, she is the older sister of B mentioned above who arranged the clean-up, and she had been one of the most committed of the Litter Lions over the course of the study.

7.6 Critical reflections on findings from Cycles One, Two and Three

The description and discussion above offers evidence of some impact of the interventions on the environmental awareness and behaviours of the children, even if for only a few of them. Throughout the study there was evidence that the child participants (and also later, adults) willingly embraced a range of art forms, and enjoy dancing, singing, poetry reciting, and play-making and thus I argue that using the arts to raise environmental awareness appears to be an appropriate way of engaging their interest, and that the different modes afford many opportunities to appeal to a broad spectrum of participants. Taking a multi-modal approach enabled analysis of participants' responses to activities within a particular mode and across modes. For example, in drawing workshops, participants were requested to respond graphically to events such as *Galela, Blessing's Story* and the site visit to the dump. Featherston and Wernick (eds. 1995) note that in drawings that children make from memory, "the child must have remembered the constituent elements of the drawn objects, at the time of observation…" (p.152). They also suggest that "[t]he elaboration appears in the form of a selection, a choice between constituent elements of the object and the child's mind which institutes a true hierarchy among the essential and the secondary elements" (ibid.). In this study, the drawing component of the interventions was important in that in many instances these drawings were a response to other art forms or experiences. Wimmer (2014) states that "since children use their drawings as a second language, their artwork communicates their inner world and experiences" (p.20), also that "it is important to see how the child connects the various

figures and objects in his [sic.] drawings" (p.3). As noted by Edwards (2016), children's drawings can also be analysed "to explore their view of the problems in the world" (p.19). From the analysis of the drawings over the course of the three cycles of action research I was able to identify aspects of participants' environmental awareness and also to make comparisons over time in order to see whether this awareness changed and if so, in what ways.

The interventions that focussed on puppetry were particularly important in this study. As noted by Schmidt and Schmidt (1998), the 'one degree of separation' that puppetry affords between puppet and puppeteer provides a safe platform for children to express themselves. Such expression was enabled by the participation of a research assistant who could translate between isiZulu and English. The children could communicate via the puppets in their home language, which not only added layers of meaning, but aligned the intervention to the inclusivity called for by theorists of deep ecology, eco-feminism and community development.

Since children's cognitive and affective development is on-going, facilitating interventions such as those in this study over the course of three years is likely to mean that the impact of each one will hold different meanings for the children as they develop. Referring once again to Hart:

> … there is a strong theoretical basis for believing that children's spontaneous learning through play and exploration in a consistent environment over time, with good role models nearby, could well be the basis for establishing the kind of deep, affectionate caring that is needed for a lifetime caring approach to the environment (p.64).

The multimodal approach taken to devising the activities for each action research cycle contributed to the maintenance of participant interest and also provided opportunities for gathering data in different ways and from different sources. Drawing activities in particular yielded important data, confirming the claim that: "… drawing is an activity that allows children to symbolize what they know and feel and it is a very essential outlet for children whose vocabulary, written or verbal, may be limited" (Edwards, 2016, p.8).

From the beginning of Cycle Two and into Cycle Three, the inclusion of adults in interventions which enabled working with women and some men engaged in aspects of work towards a cleaner environment, no matter in what capacity, became useful in many ways. An example of this is the power of word of mouth demonstrated by C and her willingness to collect tops and non-recyclables for her friend, and thereby learn about the wheelchair and eco-brick projects. Collaborations with all sectors of society through the nurturing of relationships showed the

power of community engagement if one is willing to take the time to do this. Included in this is the importance of engaging with people who have political influence in local government structures, particularly women. Kember et al's observation that "building rapport with the teams is not easy at all, but involves motivation and effort of both parties" (2006, p. 469), is certainly applicable to this study with reference to the development of relationships as is the observation by Bess et al. (2018) that "[a] good relationship between everyone involved is essential for the success of the action and research" (p.95). In this study it was the culmination of efforts to bring people of different backgrounds together that resulted in successful interventions, even if it was difficult to ascertain the extent to which environmental awareness was raised.

The theoretical framing of the study provided valuable guidance for each cycle of the research. Prioritising respect for, and acknowledgement of the value of all people, which is a fundamental tenet of deep ecology, and specifically valuing women and children, an intrinsic principle of eco-feminism, enabled the development of the relationships referred to above. Although there was not always a facilitator/learner relationship in the interventions with adults, the following statement is relevant: "When the facilitator is a real person, being what he (*sic*) is, entering into a relationship with the learner without presenting a front or façade, he is much more likely to be effective" (Rogers, p.106).

An indication of how women can be pivotal in decision-making and development within a community environment was seen in the instance of the glass recycling depot. As Bouman-Dentener states, "Traditional, top-down management places women and other civil society groups on the side of the affected, those that need to be provided for rather than participating in their own development" (2015, p.19). Here was a direct example of how the principles of eco-feminism were translated into action so that women were at the centre rather than on the sidelines. Bottom-up, inclusive and participatory project implementation, as recommended in the literature on development theory examined in Chapter Two, produced greater community benefits than had been achieved by projects implemented in the research site previously. This bottom-up approach afforded the identification of champions of the environment, through whom interventions beyond the initial plans for the study were enabled.

In terms of being the 'inside I', (or self-critical researcher) I suspect that an external observer might not have had the same contextual understandings that I was able to bring to observations during various interventions. In this study, when I was able to step back from my facilitator

role I became my own 'critical friend', an inversion of the critical friend role described by Kember et al (2006) with reference to action research in education:

> In the literature, the role of the 'critical friend' or 'facilitator' in action research is perceived as an agent for teacher development, rather than to facilitate the progress of the research (p. 464, inverted commas in the original).

I was performing the role of agent in my own personal development, and at the same time, facilitating the progress of my own research. Taking this role enabled additional insights that were important for the study.

Another important outcome of the study was the development of relationships that the interventions afforded. These began early in Cycle One and continued until the end of Cycle Three and took several forms. Firstly, my relationship with the children changed from that of authoritative facilitator to mentor to friend (now that some of them are in their late teens). Engaging with their parents and care-givers and with various role-players in the council has given me an opportunity to be a political ally in various capacities and for the relationship to be a reciprocal one which I hope can be sustained as we work together on further community projects.

Finally, the importance of protecting researchers and community developers from the dangers of eco-anxiety, cannot be overemphasized. Sarah Car (2020), refers to "disenfranchised grief", stating that the significance of such grief is often not acknowledged as being worthy of discussion within the sphere of climate change and environmental degradation (p.9). I argue that it is vital for those engaged in addressing environmental concerns to have at least a small support group to whom they can turn, as was the case for myself at various times during this study.

7.7 Conclusion

The interventions for Cycle Three concluded the fieldwork for the study. As much as the intention of raising awareness, changing attitudes and changing behaviours of the research participants with regard to littering and dumping of waste, was arguably not achieved to the extent that I would have wished, there were outcomes that were surprising and positive.

The following chapter, Chapter Eight, gives a broad overview of the findings from this study, and makes some recommendations for further projects of this nature in other rural villages in South Africa.

Chapter Eight: Conclusions and recommendations



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8.1 Introduction

The Constitution of South Africa guarantees its citizens the right to a pollution-free environment, a right supported by a range of legislation. School curricula from Grade R to Grade 12 include content and learning activities which support a range of environmental good practices. However, the extent of littering and dumping countrywide shows a deep chasm between what citizens know and what they do. The authors of *Mind the gap* (2002) suggest that the reasons for the lack of environmental good practice, despite knowledge and awareness, are complex. In South Africa we could claim that this gap between knowledge and practice is widened as a consequence of the legacy of apartheid.

This study investigated the possibility of bridging the gap between environmental awareness and action on the part of a small group of children and, as the study evolved, also adults, in the village of Wakkerstroom-eSizameleni. The mind maps at the end of this chapter (figures 8.1-8.3) provide a visual representation of key findings and knowledge gained from this study.

8.2 Findings

The principles of deep ecology, eco-feminist theory and community development theory, which underpinned this investigation informed the planning and implementation of the three

cycles of action research that constituted the fieldwork. Following the reconnaissance phase of the study, which found that many projects with an environmental focus had failed in the past, this theoretical framework enabled understanding of some of the pitfalls to avoid. Fundamental tenets of these theories and their practical implications include putting community needs first, positioning individuals as equals when engaging with them, promoting inclusivity, and importantly, showing by my own behaviour that I was prepared to get my hands dirty (literally and figuratively). All of these served me well. Importantly too, the long-term work within the site differed from the 'hit-and-run' projects that left community members vulnerable, and the assurance of continuing work in this field has enabled the development of solid and sustainable relationships.

Being an artist and a puppeteer myself, and hypothesizing that the arts would appeal to children, led me to take a multimodal approach to activities with applied drama at their core to establish what affordances these might have for arousing and sustaining their interest in the environment and in environmental good practice. The results were surprising. By focussing on environmental awareness and changing behavioural patterns of littering, I almost missed other positive outcomes of the arts-based interventions. Over the course of three years the group of children I have been working with have become articulate, confident in stating their wishes, able to perform in front of an audience, approachable and willing to engage in conversation. I am convinced that this is not only a result of children growing towards adulthood, but that sustained arts-based activities have resulted in these positive outcomes. The limited improvement in their littering practices seems less important than at the start of the study, though still a change for which to aim.

That it took three years for small changes in attitudes and behaviours towards the environment to become evident in a few children, suggests short term interventions are unlikely to be successful, and that only long-term work will have lasting impact. This study was successful in very small ways, but support for environmental good behaviour will need to continue. I have shown that although there are many instances of programmes using the arts to change environmental behaviour the world over, there can be no expectation of any meaningful change unless the work continues over an extended period of time or even indefinitely. This finding concurs with that of Curtis, Reid and Reeves (2014) who found in their study over five years that …"it was unrealistic to expect to measure long-term changes in environmental behaviour as a result of arts interventions" (p.8). Furthermore interventions such as mine need to be facilitated by active residents of the villages in which they are implemented.

As much as I wanted to focus on children, including adults in the study in various ways, and in various interventions, proved fruitful. Children need support, guidance and the example of adults. Including adults in interventions provided this but also produced outcomes that were unexpected. I discovered passionate 'champions of the environment' and was able to draw on them in a number of ways. I have concluded that there are likely to be such people in all communities, if time is taken to search for them and effort is expended in nurturing relationships with them.

The success of using the arts to raise awareness in interventions with adults came as a surprise to me. At first I was unsure about using puppets to tell stories, but when I saw how much the adults enjoyed puppetry, I used this communication tool more often.

Engaging with members of the local council could not be avoided. During the course of this study I learned that community development projects cannot ignore local politics and that engagement with councillors and council employees can be productive. It does not make sense to work in silos when there is so much that can be achieved by working together. Unfortunately, in South Africa the implementation of environmental legislation is undertaken separately by several government departments at national, provincial and local level. Noteworthy in this study was the way in which exposing local council members to various aspects of my activities in local voluntary organisations, and to my research, led to the development of useful and ongoing relationships across many relevant spheres.

This study aimed to bridge the gap between environmental awareness and action in a small group of children, but over the three years built bridges of other kinds. In the current South African socio-political environment, where the disparity between the wealthy and the poor is still sometimes compounded by racial tension, bridging communication gaps is difficult. It is to be hoped that the relationships forged during this study and the inclusion of residents of both Wakkerstroom and eSizameleni in a range of short- and long-term activities will be productive for further community action.

8.3 Limitations

In retrospect, the reconnaissance phase of the study should have included more investigation of the environmental awareness and practices of adults as a departure point for the action research cycles, and also of children's experiences of the area in which they live. I made an unwarranted assumption that all would have visited the wetlands and only discovered towards the end of the study that this was not the case.

Protecting myself from the effects of eco-anxiety was not included in plans for the study, with my focus entirely on protecting the research participants. This anxiety became severe in the face of recurring evidence of environmental degradation and was exacerbated by the socio-economic effects of the COVID-19 pandemic on the community and of the virus on myself and others.

The final stages of fieldwork were disrupted by the pandemic, but the relationships nurtured over the course of the study enabled me to assist in a number of job-creation initiatives that would not have been possible without what had been already achieved in the study.

8.4 The contribution of the study

The study was inspired by a desire to improve the quality of the natural and built environments of Wakkerstroom-eSizameleni. I wished to investigate whether engaging children in a series of arts-based activities, in which performances of various kinds played a central role, could result in increased environmental awareness and in environmental good behaviour among children and adults.

I argue that this textured account of an action research project located in a rural village, which began with a reconnaissance phase and continued through three research cycles offers the following to researchers and to facilitators of community development projects:

- Beginning with a reconnaissance phase is vital for understanding the micro circumstances of the context in which the research is located.
- One of the advantages of action research is its cyclical nature, with learning from one cycle enabling changes to the actions planned for further research cycles.
- Multimodal arts-based interventions are likely to attract and sustain the interest of children and adults and are likely to have a number of benefits for participants, even if the main environmental or other social change goal(s) of the research are not fully realised. For example, enactments of local issues and concerts through role-playing, playmaking and performing, poster-making or drawing are likely to afford researchers new understandings of local communities such as eSizameleni-Wakkerstroom.
- When working with children, the arts-based activities and the scaffolding of these activities need to be carefully aligned with their stages of cognitive and affective development.

- Change may be slow and in order to be sustainable is likely to require the long-term support of local champions.
- Understanding of, and responsiveness to, small *p* local politics, and in some instances big *P* politics, is likely to contribute to a project's success.
- The reflective practices which are central to action research and to the work of eco-feminists, among others, provide opportunities for deepening insights over time.

In a co-facilitated intervention, it is possible to exchange the roles of 'researcher' and 'critical friend' so that the same person may play both roles at different times to the benefit of what is learned from the intervention.

8.5 Recommendations for further action research interventions

With one of the key aims of any action research project being *improvement*, and with *involvement* of research participants being central to the design of the research, action research has potential to lead to improved quality of local environments. One challenge to be addressed is that every community is characterised by its own set of circumstances and opportunities. In South Africa no village will be the same as another, due to variances in socio-cultural and socio-economic demography, natural environment, and local governance. It is therefore imperative that a thorough reconnaissance phase be implemented prior to any planning of an action research project. This cannot be undertaken in a short space of time, and I would recommend sourcing a research assistant who lives in the village as soon as possible, especially if the researcher/facilitator does not live there. Involving the marginalised in the community in which the research is located, especially women and children, is important for both the enrichment and the sustainability of research and development projects. Furthermore, no intervention is likely to result in meaningful positive outcomes if it is not conducted over an extended period of time, so that children growing into adulthood will be followed by their own children into community improvement programmes that draw on accumulated knowledge and skills.

Any researcher in this field needs to ensure protection against eco-anxiety. There are a number of ways of doing this, as the literature suggests. Some suggestions are: be aware of the possibility of eco-anxiety from the outset and do not underestimate the possible severity of the condition; ensure that time is set aside regularly to simply go into nature and enjoy it; do something that is not eco-friendly once in a while, such as throwing a small recyclable into the bin to mitigate a constant obsession with being environmentally friendly. To protect research

participants from eco-anxiety, include activities that do not have an environmental theme. Taking participants into nature and encouraging them to enjoy the natural environment for its own sake is also recommended.

8.6 Conclusion

The introduction to the study includes a quotation from Dr Jane Goodall who asked *what are the consequences of little choices made?* It took many hours of work across a three-year time span but small successes have been achieved and the groundwork laid for on-going environmental education and community development work. In post-Covid times, with the support of some, or perhaps all those who became connected to the study - the children, their parents, council workers and caring, committed individuals in Wakkerstroom-eSizameleni – greater successes may be achieved. I end by repeating some encouraging words from Margaret Mead: “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it’s the only thing that ever has” (Mead in Lehtonen et al, 2019, p.366).

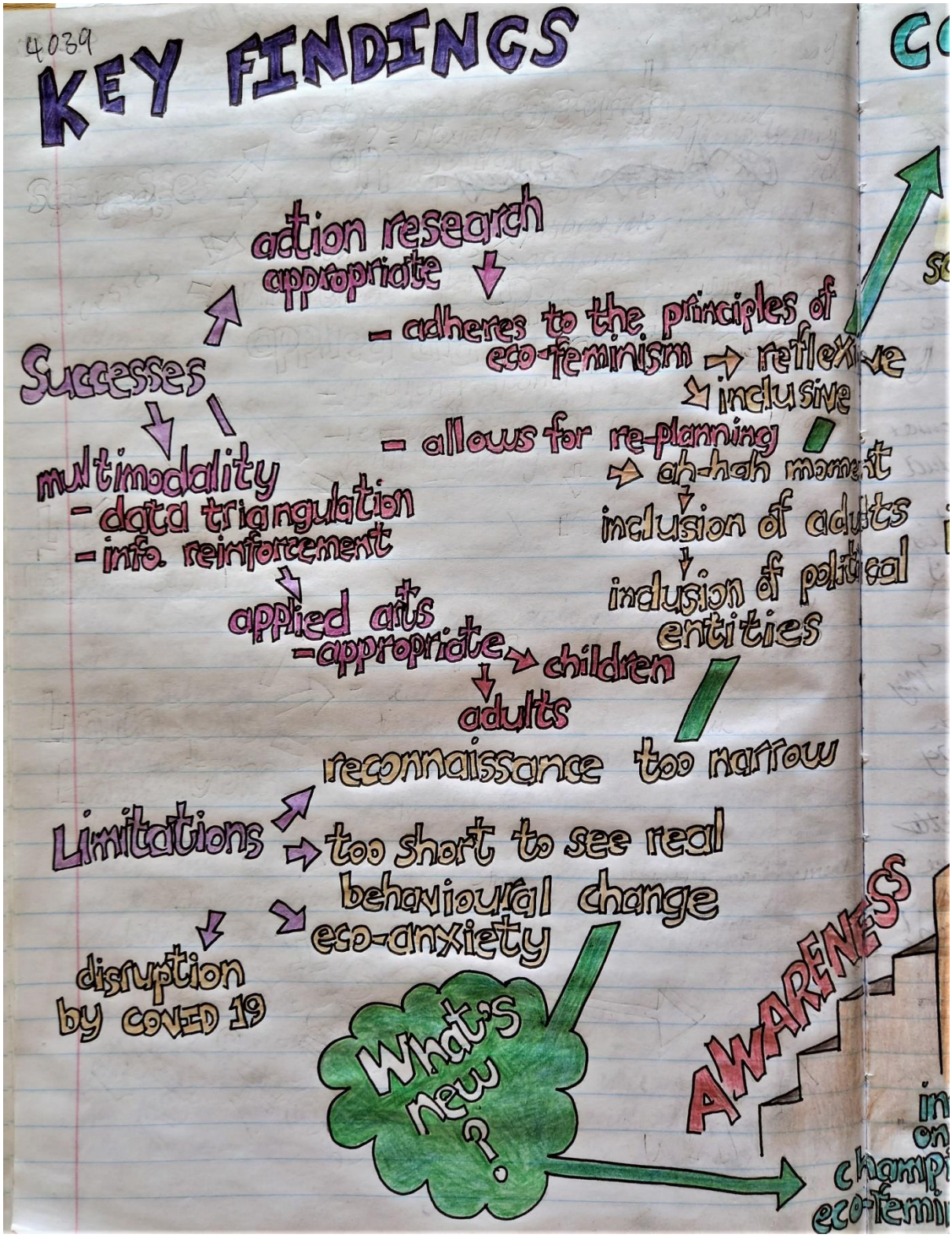

Figure 8.1 mind map: key findings

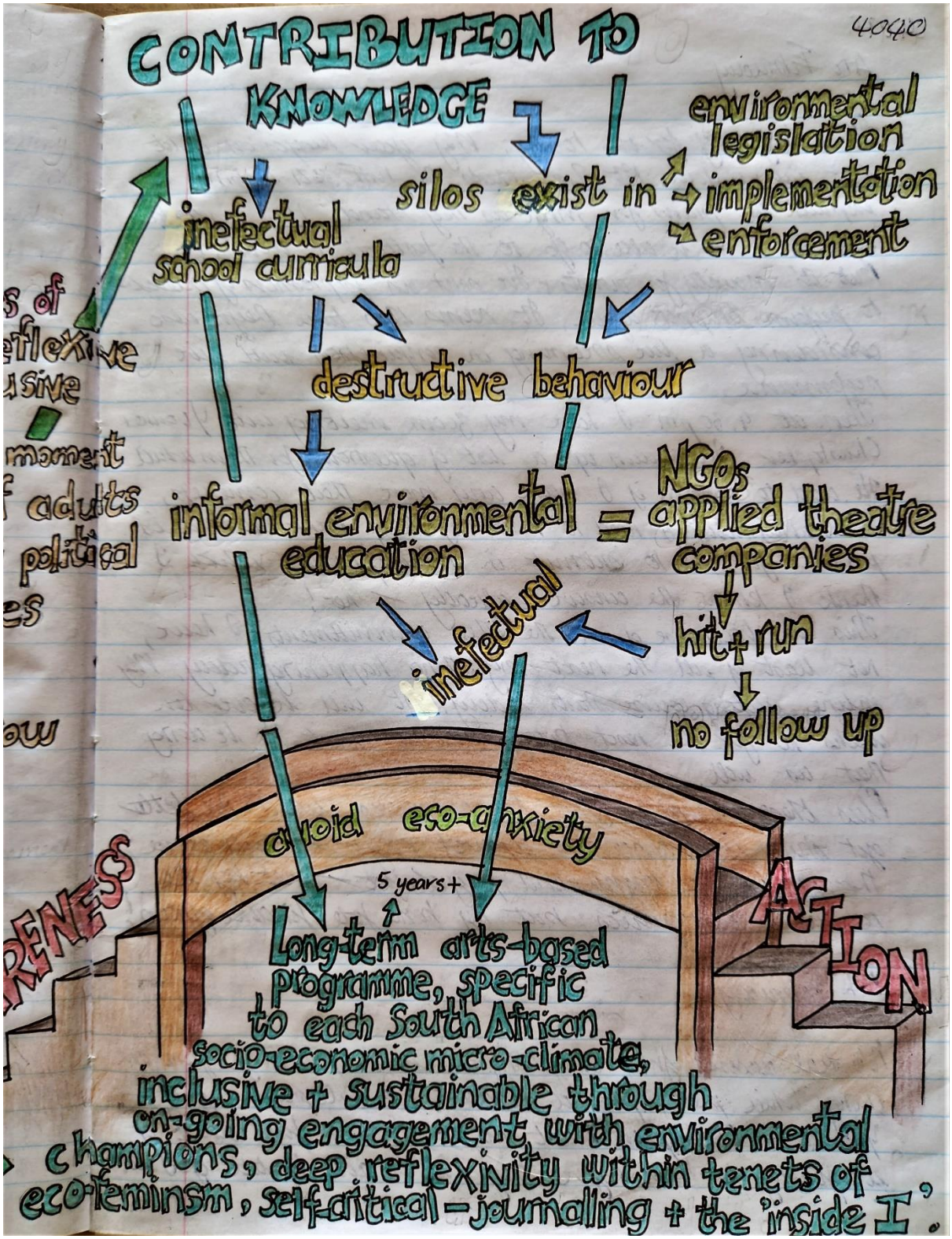

Figure 8.2 mind map: contribution to knowledge

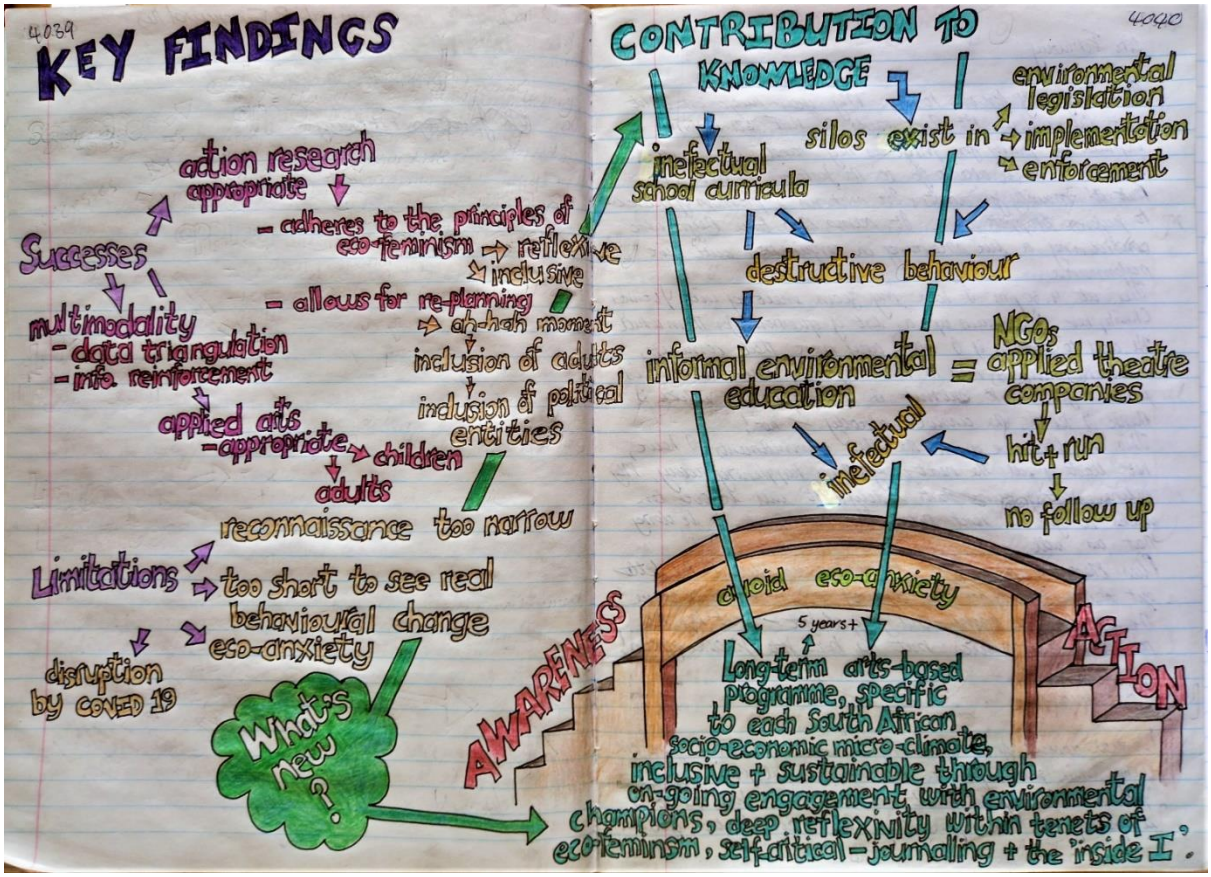

Figure 8.3 mind map: key findings and contribution to knowledge

Appendices

Appendix A: Questionnaire one

Interview questions for residents of eSizameleni

1. How long have you lived in eSizameleni?.....
2. How old are you? ……
3. Did or do you attend the high school here? ……
4. Were or are you taught anything about litter and waste at school, and if so what were you taught? ……..
   ……
   ……
   ……
   ……
5. What do you think causes people to dump rubbish into the water and onto the ground?
   ……
   ……
   ……
   ……..
6. Why do you think that people dump waste instead of putting it out for collection once a week?
   ……
   ……
   ……
   ……..
7. Why do people dump pampas into the rivers?
   ……
   ……
   ……
   ……
8. How can we make the village clean?
   ……
   ……
   ……
   ……

   We will be putting all the information together and will report to everyone we have interviewed. Thank you.

Appendix B: CAROL PRESTON PhD LITTER AND RECYCLING SURVEY

Dear respondent

I am conducting a short survey on litter and recycling awareness for the purposes of my PhD study, which deals with littering and informal dumping practices in Wakkerstroom and eSizameleni. I would be most grateful if you would take the time to fill in the short questionnaire. This is anonymous and if you would like to have a copy in Afrikaans, I will be happy to provide one. Please note that questionnaires in isiZulu have been circulated as well. If you have friends and/or staff who would like to respond, please let me know and I will supply one.

Please tick the appropriate box, and when done drop it in the envelope attached to my gate at 230 Uys Street. This is to ensure anonymity, but if you are happy for me to pick it up from your home, I will be willing to do so. In this case, please send me a message or call me. For those who live in Kana there will be an envelope at the gate for drop off.

1. **How long have you lived in Wakkerstroom?**

   1-10 years 10-15 years 10-20 years 20 years plus

2. **What is your gender?** male female

3. **What is your age group?**

   20-30 30-40 40-50 50-60 60 plus

4. **Do you know where the glass recycling drop off point is? yes / no**

5. **Do you know where you can drop off recyclables? yes / no**

6. **Do you make use of these drop off points? yes no**

7. **How have you heard about where you can drop off recyclables?**

   Email WhatsApp word of mouth other/NA

8. **What do you do with building rubble?** take it to the dump put it on the pavement ensure the builder removes it

If you have any other comments or suggestions, please use the back of this form. Thank you for your time.

Carol Preston 0837014670 230 Uys Street

Appendix C: letters of information, consent, assent and ethics clearance certificate

PARTICIPANT INFORMATION SHEET

Title of the research project: The affordances of an applied arts intervention for sustained environmental good practice in the township of eSizameleni.

Research project by Carol Preston, 0836014670, 230 Uys Street, Wakkerstroom

Supervisor: Yvonne Reed, 0116468150

Ethics Committee details: Shaun Schoeman shaun.schoeman@wits.ac.za, 0117171408

Good day

This letter is an invitation to be part of my research project which I am doing through Wits University. My project is working with children from eSizameleni and Wakkerstroom, and I hope to be able to help with cleaning up the environment and the water ways by using plays, drawings and performances for community members. I hope that at the end of my project children like you will be able to understand the importance of keeping our environment clean and not throwing rubbish on the ground, and that the children will know what to do with rubbish instead. My aim is to raise awareness in children who will then be able to understand what happens to rubbish that is left on the roads and in the water. How I want to do this is by using art, plays and discussions about the environment. Through this project I hope to understand why people throw litter on the ground and dump rubbish in the communities, and then to plan ways to stop this from happening. Hopefully I will be able to help other people living in small villages like ours to understand the need for taking care of the environment.

You have been asked to be part of my project through The Clay after care programme, where you will have seen me once a week coming to talk about how we should be taking care of our environment. I would like to invite you to be part of this project, and I will ask your parents or guardians for permission for you to work with me as well. This project will be over the next four years starting in 2018. Each school term there will be a new programme. I do not need any payment from you or your parents or guardians for you to be involved in this project, and you can leave the project at any time you like. You do not have to answer questions or take part in activities that make you feel uncomfortable. Your

participation in my project is voluntary, which means that you choose to be in the project and you are not forced to be involved. Please know that because there will be group projects, discussions and workshops I cannot be sure that you will be anonymous. This means that others in the group will know you, just as you will know them. It also means that I cannot be sure of confidentiality. This means that the others in your group will know what you say or do in workshops and discussions.

Sometimes I will take videos of plays that we make together, and sometimes I will take photographs of the art works that we make. These will be used for presentations for the communities – your family and friends, who will be invited to come and see what you and the rest of the participants have been doing. The videos will never be shown on television. If you feel uncomfortable at any time about photographs and videos you are welcome to tell me not to do this, and I will stop. All your art work will be filed and kept in my office in a locked cupboard, so nobody will be able to see them, and they will be given back to you if you want them back. Videos of plays recorded on cell phone will be transferred to my computer and wiped from the phone. This means that nobody will be able to see them unless we allow them to.

At the end of the four years I have to write a thesis. This is part of what I have to do for this study for the university. I will never use your name in anything that I write in my thesis. My thesis will be put onto the internet for other researchers to learn from, and a copy will be put in the University Main Library, but they will never know who you are. If you would like me to make a short version of my thesis I will be happy to do this.

I have a supervisor who looks after me while I am busy with my research project. Her name is Yvonne Reed and you can call her anytime if you need to if you have any questions. Her contact number is at the top of this letter. You can also call me or come and see me at anytime as well, and I will happily help with questions. My address and contact number is also at the top of the letter. I hope that we will have a lot of fun together and I am looking forward to working with you.

Carol

PARENT/GUARDIAN INFORMATION LETTER

Title of the research project: The affordances of an applied arts intervention for sustained environmental good practice in Wakkerstroom-eSizameleni.

Research project by Carol Preston, 0836014670, 230 Uys Street, Wakkerstroom

Supervisor: Yvonne Reed, 0116468150

Ethics Committee: Shaun Schoeman shaun.schoeman@wits.ac.za 0117171408

Dear Sir/Madam

This letter is an invitation for your child to be part of my research project which I am doing through Wits University. My project is working with children from eSizameleni and Wakkerstroom, and I hope to be able to help with cleaning up the environment and the water ways by using plays, drawings and performances for community members. I hope that at the end of my project children will be able to understand the importance of keeping our environment clean, and have an understanding of alternatives to dumping. My aim is to raise awareness in children who will then be able to understand what happens to rubbish that is left on the roads and in the water. How I want to do this is by using art, plays and discussions about the environment. Hopefully I will be able to help other people living in small villages like ours to understand the need for taking care of the environment. Your child has been identified to be part of my project through The Clay after care programme, where I work as a volunteer educator. This project will be over the next four years starting in 2018, and each school term there will be a new programme. I do not need payment from you for your child to be involved in this project, and your child can leave the project at any time he or she likes. Your child does not have to answer questions or take part in activities that make him or her feel uncomfortable, and his or her participation in my project is voluntary. It is also important to note, please, that since there will be group discussions and group workshops that I am unable to guarantee anonymity or confidentiality.

At times I will take videos of plays that we make together, and at times I will take photographs of the art works that we make. These will be used for presentations for the communities – families and friends, who will be invited to come and see what the children have been doing. If your child feels uncomfortable

at any time about photographs and videos being taken it has been explained that he or she welcome to tell me not to do this, and I will stop. Videos and artwork will be stored in a locked cupboard in my office and no unauthorized people will have access to this. If your child would like his or her artwork returned to him or her I will gladly do this.

At the end of the four years I have to write a thesis, and this is part of what I have to do for this study for the university. I will never use your child's name in anything that I write in my thesis. My thesis will be put onto the internet for other researchers to learn from, but they will never know who your child is. If you would like me to make a short version of my thesis for you I will be happy to do this.

I have a supervisor, Yvonne Reed, who guides me while I am busy with my research project; please feel free to call either her or me at anytime if you have any questions. Our contact numbers, and my address, are at the top of this letter.

Kind regards,

IFOMU LOMZALI/UMONDLI (Parent/guardian consent form)

Isihloko socwaningo: Ukusetshenziswa kobuciko ekusekeleni imikhuba emihle yokugcina imvelo ihlanzekile esigodini saseSizameleni.
Umcwaningi womsembenzi: Carol Preston, 083 601 4670, 230 Uys Street, Wakkerstroom

Mina
……
……
(igama lomzali) ngiyavuma ukuthi ngichazelwe ngocwaningo futhi ngiyazwisisa ukuthi u_____uzobamba liphi iqhaza.

Yebo cha

Ngiyavuma ukuthi izithombe zomsebenzi wobuciko owenziwe yingane yami kanye nemidlalo eqoshwe eyingxenye yayo ingagcinwa futhi kusetshenziswe kwisethulo emphakathini.

Yebo cha

Ngiyavuma ukuthi ulwazi olutholakele ngocwaningo lungasetshenziswa nangabanye abacwaningi.

Yebo cha

Igama lomzali/umondli
……..
Igama lengane ezohlanganyela
……..
Usuku

…….

IFOMU LESIVUMELWANO NOMHLANGANYELI (participant assent form)

Isihloko socwaningo: Ukusetshenziswa kobuciko ekusekeleni imikhuba emihle yokugcina imvelo ihlanzekile esigodini saseSizameleni.
Umcwaningi womsembenzi: Carol Preston, 083 601 4670, 230 Uys Street, Wakkerstroom

Mina
……
……
(igama lomhlanganyeli) ngiyavuma ukuthi ngichazelwe ngocwaningo futhi ngiyazwisisa ukuthi ngizobamba liphi iqhaza.

Yebo cha
Ngiyavuma ukuthi izithombe zomsebenzi wobuciko ezenziwe yimina kanye nokuqoshwe ngami kungagcinwa futhi kusetshenziswe kwisethulo emphakathini.

Yebo cha
Ngiyavuma ukuthi ulwazi olutholakele ngocwaningo lungasetshenziswa nangabanye abacwaningi. Isibonelo uma umcwaningi engafuna ukusebenzisa inxenye yomphumela walocwaningo engami kucwaningo lwakhe, olunesihloko esisondelene nalesi .

Yebo cha

Igama lomhlanganyeli

……..
Isiginesha KaMhlanganyeli

……..
Usuku

…….

INCWADI YABAGXILA NGOLWAZI (focus group, informal conversation information letter)

Isihloko socwaningo: Ukusetshenziswa kobuciko ekusekeleni imikhuba emihle yokugcina imvelo ihlanzekile esigodini saseSizameleni.
Umcwaningi womsembenzi: Carol Preston
Umhloli : Yvonne Reed
Imininingwane yeKomidi lenkambo enhle: shaun schoeman

Mhlanganyeli

Ngiyabonga ukuvuma ukuba yingxenye yamalunga azogxila ngolwazi locwaningo engilwenzayo. Lencwadi ikwazisa mayelane nocwaningo engilwenza ngokusebenzisa iNyuvesi iWits . Lomsebenzi ngizowenza ngokusebenzisana nezingane zaseSizameleni naseWakkerstroom, ngiyethemba ngizoba lusizo ekugcineni indawo ihlanzekile kanye namanzi ngokusebenzisa imidlalo, imidwebo kanye nokwenzela amalunga omphakathi imidlalo.
Ngiyathemba ekupheleni kwalomsebenzi izingane zizobe seziqonda kabanzi ngokubaluleka kokugcina imvelo ihlanzekile futhi ziqonda nezindlela ekuyizonazona zokulahla imfucuza.
Inhloso yami ukukhuphula izinga lokuqonda ezinganeni mayelana nemfucuza esala emgwaqweni kanye nasemanzini. Ngizokwenza konke lokhu ngokusebenzisa ubuciko, imidlalo, kanye nezingxoxo mayelana nemvelo. Ngiyethemba ngizokwazi ukusiza nabanye abantu abahlala ezigodini ezincane njengaso lesi esethu, ukuba bakwazi ukuqonda isidingo sokunakekela imvelo.
Mayelana nezinhlolokhono zababambiqhaza ngizodinga ukuholwa ngendlela yohlaka locwaningo. Izingxoxo zeqembu lokugxila ngolwazi yizona engethemba ukuthola ngazo ulwazi lokuthi yiziphi izizathu ezenza abantu bengcolise, kanye nokuthola izindlela ezingalekelela wena namalunga omphakathi ukuthi kugweywe imfucuza endaweni.
Emva kweminyaka emine komele ngibhale ngomphumela wocwaningo, lokhu kuyingxenye yomsebenzi engowenzela iNyuvesi iWits.
Angeke ngisebenzise igama lakho kulocwaningo uzohleze ungaziwa,uma kuyisifiso sakho. Uma ufuna ngikwenzele isiqeshana somphumela walocwaningo uma sengiqedile ucwaningo ngiyothokoza ukukwenza lokho.
Izingxoxo zeqembu lokugxila ngeke zaba ngaphezu kwamahora amabili futhi zizobanjelwa e-The Bioscope. Lezingxoxo zizoqoshwa ngomqophi mazwi zibese zigcinwa kukhomputha ngephasiwedi ethile. Izingxoxo eziqoshiwe ziyosulwa mhla kwaphethwa. Izingxoxo eziqoshiwe ziyogcinwa ngendlela ehhovisi lami ekhabetheni.
Uzonikwa ifomu leqembu eligxila ezingxoxweni ukuba usayine. Ngiyacela ukuthi unake ukuthi isiqiniseko sokuvikeleka kwegamalakho asikho kodwa uma sekubhalwa umphumela wocwaningo amagama abantu ababebambiqhaza awazukuvezwa umbhali uyozisebenzisela awakhe.
Umhloli wami nguYvonne Reed, ungamfonela noma mina uma unemibuzo. Amafoni akhe angaphezulu kulencwandi nami ungangithinta noma ungibone noma yinini ngingajabula ukulekelela ngemibuzo. Ikheli lami kanye nenombolo yocingo nakho kungaphezulu.

Ozithobayo
uCarol Preston

IFOMU LABAGXILA NGOLWAZI (focus group, informal conversation form)

Isihloko socwaningo: Ukusetshenziswa kobuciko ekusekeleni imikhuba emihle yokugcina imvelo ihlanzekile esigodini saseSizameleni.
Umcwaningi womsembenzi: Carol Preston

Ngiyakwamukela ukuba ngomunye weqembu lokuhlaziya ulwazi ngokukhuthazwa ngu Carol Preston ngenhloso yezifundo zeziqu zakhe .

Ngokuvulelekile ngiyamnika imvumo uCarol Preston neNyuvesi iWits igunya lokugcina konke okuqoshwe kukhomputha ezovikela konke, ezohlala ekhabetheni elikhiywayo. Ngiyamnika uCarol Preston neNyuvesi iWits imvumo yokusebenzisa lomsebenzi ezigungwini zokufunda, ekufundiseni ngawo, ekuwuphindaphindeni, ekubolekisaneni, ekukhangiseni nasekuwudayiseni lomsebenzi kanye nokuwundlulisela ezindaweni zokuwukhangisa ngokugqamile. Nokuwufaka ohlelweni lweNyevesi oluku-internet. uCarol Preston neNyuvesi bazokwenza ngalohlelo:

[ ] Ngaphandle kokuvinjwa

[ ] Ngokuvinjwa yilokhu okulandelayo

[ ] Ingxoxo izomamelwa futhi isetshenzise ngemvumo yami kuphela.

[ ] Izingxoxo ngeke zandluliselwa kwabanye abantu bomphakathi ngaphambi_____

[ ] Shono okunye;

Isiginesha kamhlanganyeli kuleqembu
_____
Usuku

Igama elingcwele_____
Amafoni _____
Ngicela uCarol Preton neNyuseni iWits ingabinagunya lokungihlonza ngegama umakwenziwa izingxoxiswanano kumathephu nakwezinye izinhlelo zomthombo wabezindaba.

Isiginesha kamhlolikhono_____

Usuku_____

Isiginesha yomkhuthazi_____

Usuku_____

Ethics clearance certificate

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Preston

CLEARANCE CERTIFICATE	PROTOCOL NUMBER: H18/06/30
PROJECT TITLE	The affordance of an applied arts intervention for sustained environmental good practice in the township of eSizameleni
INVESTIGATOR(S)	Miss C Preston
SCHOOL/DEPARTMENT	Wits School of Arts/
DATE CONSIDERED	22 June 2018
DECISION OF THE COMMITTEE	Approved
EXPIRY DATE	22 August 2021

DATE 23 August 2018 CHAIRPERSON (Professor J Knight)

cc: Supervisor : Professor Y Reed

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Preston
Signature

29 , 08 , 2018.
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix D: Litter Lion play

(two characters are played by one performer indicating the different characters by changing caps and accent, and by turning to face the other character)

Actor enters the stage, looks for somewhere to sit. Sits on a crate that is pre-set. Actor opens backpack and takes out a take-away container, and a cold drink, and begins to eat. After enjoying the meal the actor throws the containers on the ground. Actor changes character and stands, looking at first character.

Second person: Hey! What do you think you are doing?
First person: What do you mean?
Second person: Throwing your rubbish down on the ground here.
First person: Well there is so much rubbish here anyway. What difference will it make?
Second person: There is no reason to make it worse.
First person: Well I am creating jobs, for those people who clean up.
Second person: If you are creating jobs for people to clean up, then why is this place so dirty?
First person: There is no bin here. So where am I supposed to put this?
Second person: You keep it in your bag until you find a bin. And your plastic bottle can be recycled, you know.
First person: Yes I know about recycling. But it is so hard to do.
Second person: It is not so hard. There is a recycling depot down the road. It is the right thing to do. Don't be lazy.
First person: Yes I will try not to be lazy from now onwards.
Second person turns to the children. Asks what are recyclables, what can be done with waste, talks about the importance of not littering. Then teaches them the Litter Lion song

Appendix E: Litter Lion song

(sung to the tune of "What shall we do with the drunken sailor")

What shall we do with the mess around us X 3

Throw it in the dustbin

Reuse, rethink, recycle X3

Stop the mess around us

I want to be a Litter Lion X3

Stop the mess around us

Appendix F: the *Whitchita* song

Whitchita do-e-ah, do-e-ah, do-e-ah
Whitchita do-e-ah, do-e-ah, ho X2

Wakka tenaya, haya, haya
Wakka tenaay, haya, ho X2

(repeat)

Appendix G: Ms Hall's story for the process drama workshop

There were twins who loved to go down to the pond at midnight during full moon. They loved to see the reflection of the moon in the pond and listen to the sounds of the frogs in the water. But as time went by the began to realise that there was a problem with the pond. It became more and more difficult to see the reflection of the moon in the water, and eventually the moon disappeared altogether.

They saw that it was litter and dumping that was blocking the water and it was so bad that Gogo had become sick. They also knew that their older sister, who had a new baby, was dumping the baby's diapers in the river, and that they were ending up in the pond. This made the children very sad, and they decided to do something about it.

Appendix H: Blessing's story

Blessing went to visit his uncle in Johannesburg. He went from the township (sounds of children calling to each other; animals; whips cracking). A storm blew up (sounds of wind; thunder; hail; rain). He took a train to Johannesburg (sound of the train hooting, chugging). In the city he took a taxi to Uncle's house (sounds of taxi hooting; people talking; brakes squealing). At his uncle's house he saw that his uncle was making art work out of waste plastic, and making money out of it. Blessing liked this idea but he thought he could do better. He wanted to use metal to make art work. He started to collect metal waste, and made friends with the waste pickers in the city (sounds of trolleys; people calling to each other). Blessing made lovely art out of waste metal and exhibited it in an art gallery in Johannesburg. Here an international art dealer saw his work and bought all the art and took it to New York. Blessing made a lot of money out of his art and he was very happy.

Appendix I: ***The Lunch Box Boy***

Mr Mouse: Not so long ago there lived a girl called Tammy. Every day before she went to school her mother, whose name was Mrs Nsibanda, would make Tammy a lunch box. There would be an apple or a banana or a pear, and a sandwich with peanut butter or jam or cheese spread. When Tammy came home from school she would put her lunch box in the sink and wash it out ready for the next day. One day she came home from school and said to her mother: "Mom there is a boy in my class who falls asleep every day. He puts his head down on his desk and falls asleep. I think he is hungry." The next day when Tammy came to pick up her lunch box, Mrs Nsibanda had made two lunch boxes. "Take this to the boy in your class", she said, "Give it to him so that he will not be hungry." From that day onward Mrs Nsibanda made two lunch boxes for Tammy to take to school. And every afternoon Tammy would wash out two lunch boxes.

Many years went by. Tammy grew up, and had children of her own. Mrs Nsibanda's children had all left home by then. One day she was sitting in her kitchen, resting all on her own after the hard work of cleaning up, when there was a knock on the door. "Come in," she said. In came a young handsome man. "Hello Mrs Nsibanda, how are you this lovely day?" he said. "I am really well," she replied, "and how are you?" "I am very well," said the young man. "Do I know you?" she asked, "You seem to know me, but I have not met you before." "Yes," he said, "You do know me. My name is Sello." "Hmmm, Sello," said Mrs Nsibanda, "No, I don't remember meeting you. I am sorry." "Well", said Sello, "I am the lunch box boy!" "The lunch box boy," said Mrs Nsibanda, "No I really am sorry I do not know who you are. Can you remind me please?" "I am the lunch box boy, the boy who you made a lunch box for and gave to Tammy to bring to school for me every day. Because of the lunch box I was able to stay awake for classes and I left school with good grades. I went to university and now I have a good job, a lovely wife and two children. I have a little house and I can support my mother. All thanks to you, Mrs Nsibanda. So now I am here to volunteer in my spare time to help you with any work that you need me to do." From that day onwards Sello and Mrs Nsibanda were great friends, and Sello would come and help her with anything she needed. When Mrs Nsibanda and Sello's mom got really old, Sello and Tammy would love to see them sitting on the stoep talking about the old days and watching their grandchildren play.

References

Adelman, C. (1993). Kurt Lewin and the Origins of Action Research, *Educational Action Research*. 1(1), pp. 7-24

Aitken, M. (2016). *Emthonjeni Come to the Wellspring*. Underberg: The Grail

Amulya, J. (2004). *What is reflective practice*. Community Science: Gaithersburg

Anderson, B., Wenzel, M., Romain, J., and Phillips, H., (2010). *Exploring Environmental Consciousness in South Africa*, Report 10-709. Population Studies Centre, University of Michigan, Institute for Social Research

Andrikopoulou, E. and Koutrouba, K. (2017). *Improvised eco-theatre as educational tool for the environmental awareness of elementary students*. Proceedings of EDULEARN17 Conference 3rd-5th July 2017, Barcelona, Spain ISBN: 978-84-697-3777-4 (accessed 18/08/2021)

Archer A. and Newfield D., eds. (2014). *Multimodal Approaches to Research and Pedagogy. Recognition, Research and Access*. New York: Routledge

Austin G., (1990), *Feminist Theories: Paying attention to women*, from Feminist Theories for Dramatic Criticism (Ann Arbor: University of Michigan Press, 1990)

Baarfield, T. ed. (2001). *The Dictionary of Anthropology*. Oxford, UK: Blackwell Publishers

Bargal D. (2006). Personal and intellectual influences leading to Lewin's paradigm of action research. *Action Research*, 4(4), 367-388. London: SAGE Publications

Barrett, E. and Bolt, B. eds. (2009). *Practice as Research: Approaches to Creative Arts Enquiry*. United States of America: Palgrave Macmillan

Bergdoff, H. (2006). *The debate on research in the arts*. Amsterdam: Amsterdam School of the Arts

Bess, Higson-Smith and Sithole, (2018). *Fundamentals of Social Research Methods; An African Perspective*. 5th edition, Zambia: Juta and Company Ltd

BirdLife South Africa, (2002). *Learning for sustainable living; An Integrated Learning Resource for Environmental Education*, South Africa

Bizcommunity (2013). Collect-A-Can offers lifeline to unemployed South Africans [online]. Available from: https://www.bizcommunity.com/Article/196/361/95566.html [accessed 12th November 2020]

Bland, D.C. (2012). Analysing Children's Drawings – Applied imagination, *International Journal of Research and Method in Educations*. 35(3), pp. 235-242

Block, P. (2009). *The structure of belonging*. California: Berret-Koehler Publishers Inc.

Boal, A. (2002). *Games for actors and non-actors*. 2nd edition. London and New York: Routledge

Bouman-Deneter, A. (2015). Women as Agents of Change in Water: Reflections on Experience from the field, in *Women for Water Partnership 2015, in collaboration with UN-Women and UNW-DPAC*

Braidotti, R. Charkiewick, E. Hausler, S. and Wieringa, S. (1995). *Women, the Environment and Sustainable Development. Towards a Theoretical Synthesis*. United Kingdom: Zed Books Ltd.

Brainly (2020). *Brainly* [online]. Available from: https://brainly.in/question/11149381 [accessed 12th November 2020]

Brisson, S. (2017). Women's Connectedness to Nature: An Ecofeminist Exploration, *All Regis University Theses*. Available from: https://epublications.regis.edu/theses/846

Burdette, L.H. MD. MS; Robert C. Whitaker, R.C., MD. MPH (2005) Resurrecting Free Play in Young Children. Looking Beyond Fitness and Fatness to Attention, Affiliation, and Affect. *Arch Pediatr. Med*. 159(1): 46-50 [p377]

Buzan, T. and B. (2003). *The Mind Map Book*. London: BBC Worldwide Limited

Capra, F. (1997). *The Web of Life A new synthesis of mind and matter*. London: Flamingo

Carr, S. ed. (2020). *The Skimmer on Marine Ecosystems and Management*. 14(1)

Carver, M.H. (2007). Methodology of the Heart: A Performative Writing Response. *Liminalities: A Journal of Performance* Studies, 3(1), pp.14

Chivandikwa, N. Mhlanga-Gunda, R. Mahaso, S. Chinokwetu, C. Kewley, S. Van Hout, M.C. (2020). Empowering Zimbabwean Women Prisoners' Right to Health and Equivalence of Care in the Prison System using *Forum Theatre*. *Sustainable Development in Africa*, 22(3) pp.53-66

Cialdini, R.B. Kallgren, C.A. and Reno, R.R. (1991). A Focus Theory of Normative Conduct: A theoretical refinement and reevaluation of the role of norms in human behaviour. *Advances in Experimental Social Psychology*, Vol. 24

Coetzee, J.K. ed. (1988). *Development is for People*. Johannesburg: Southern Book Publishers (Pty) Ltd

Cohen D. (2006). *How the child's mind works*. New York: Routledge

Collins, K.J. (1999). *Participatory research. A Primer*. South Africa: Prentice Hall (Pty) Ltd

Constitution of the Republic of South Africa (1996). *Constitution of the Republic of South Africa* [online], Available from: https://www.gov.za/documents/constitution-republic-south-africa [accessed 12th November 2020)

Costa, A. and Kallick, B. (1993). Through the lens of a critical friend. *Educational Leadership*, 51(2), 49-51

Course content unknown author, (2015). *Community Development Theories and Principles of Community Participation*. University of Nairobi.

Curriculum and Assessment Policy Statement Grades R-3 LIFE SKILLS, Department of Basic Education, 2011

Curriculum and Assessment Policy Statement GRADES 10-12 LIFE ORIENTATION, Department of Basic Education, 2011

Curtis, D.J, Reid, N. and Reeve, I. (2014). Towards Ecological Sustainability: observations of the role of the arts. *S.A.P.I.E.N.S Surveys and Perspectives Integrating Environment and Society* 7.1/2014 Vol. 7/no. 1

Day B. and Monroe M. eds. (2000). *Environmental Education for a Sustainable World Handbook for International Practitioners.* GreenCOM: USAID

De Jager, A. Tewson, A. Ludlow, B and Boydell, C. (2016). Embodied ways of storying the self: A systematic review of body-mapping. *Forum: Qualitative Social Research*, 17(2), no p.n.

Dixon, K. Janks, H., Botha, D. Earle, K., Poo, M. Oldacre, F. Pather, K., Schneider, K. (2018). A critical analysis of CAPS for Life Skills in the Foundation Phase (Grades R-3), *Africa Journal of Education*. Wits University, Johannesburg, n.71 Durban. Available at: http://dx.doi.org/10.17159/2520-9868/i71a01 [accessed 12th March 2021]

Douglas, M. and Fardon, R. eds. (2013). *Personal Method. Anthropological Writings Drawn from Life*. London: Sage

Douglas, K. and Caless, D. (2013). A History of Autoethnographic Enquiry. *Handbook of Autoethnography*. Accessed on: 24 Apr 2020 https://www.routledgehandbooks.com/doi/10.4324/9781315427812.ch2

DOWN2EARTH, (2018) issue 02. WWF

Drengson, A. Devall, B. Schroll, M.A. (2011). The Deep Ecology Movement: Origins, Development, and Future Prospects (Towards a Transpersonal Ecosophy). *International Journal of Transpersonal Studies*, 30(1-2), 2011, pp.101-117

Duru, A. Ozbek, A. Kucukcan, F. Bahadir, T. and Culfaz, Z. creative team. (2003). *Feeling and learning nature with children "The Guidebook for Volunteers and Trainers* Turkey: Smyrna Communication Ltd, Co.

Eco Schools (2014). Litter Less Campaign [online]. Available from: https:///www.ecoschools.global/about-the-campaign [accessed 14th March 2019]

Ellis, C. Adam, T.E. and Bochner, A.P. (2010). Ethnography: An Overview. *Qualitative Research*, 12(1), Art. 10. Available at: http://nbn-resoiving.de/um:nbn:de:0114-fqs1101108

Edwards D. (2016). *Analysis and Interpretation of Children's Drawings*. (thesis/dissertation – no reference)

Etherton, M. and Prenti, T. (2006). Drama for Change? Prove it? Impact assessment in applied theatre. *Research in Drama Education*, 11:2, pp.139-155

Ewitt, C. Bezemer, J. and O'Halloran K. (2016). *Introducing Multimodality*. New York: Routledge

Featherston, M. and Wernick, A. eds. (1995). *Images of Aging; cultural representations of later life*. London: Routledge

Flore, C.N.M. (no date). *The impact of arts and culture teaching on Cameroonian youths: quality education, peace-building and sustainable development*. Cameroon: University of Dshang, Department of Performing Arts

Formanek, R., Gurian, A., and Thomas, CT. (1976). *Charting Intellectual Development. A practical guide to Piagetian tasks*. USA: Thomas

Foulner, T.S. (2020). External Conversations: An unexpected discovery about the critical friend. *Action research inquiries*. 8(2), pp.135-152

Frazier, C. (2006). *Thirteen Moons.* USA: Random House

Garrard G. ed. 2014, *The Oxford Handbook of Ecocriticism*. New York: Oxford University Press

Hart, R.A. (1999). *Children's Participation. The theory and practice of involving young citizens in Community Development and Environmental Care.* New York: UNICEF Earthscan

Harrop-Allin, S. (2011), *The implications of South African children's games for music education*. University of Western Ontario, London Ontario

Harrop-Allin, S. (2017). Multimodality and the Multiliteracies Pedagogy: Design and Recruitment in South African Children's Musical Games. *Journal of Research in Music Education*. 65(1)

Harvester, L.J. (2009). *Ecofeminist Pedagogy: Framework for Ecojustice in Education*. Canada: Simon Fraser University Library

Heron, J. and Reason P. (1997). A Participatory Inquiry Paradigm. *Qualitative Inquiry*, Volume 3 Number 3, pp. 274-294

Hertz, R. ed. (1997). *Reflexivity and voice*. United Kingdom: Sage Publications,

Holmes, R. (1998). *Fieldwork with Children*. California: Sage Publications, Inc.

Hsu and Ya-Huei (2014). *Analysing Children's Drawings*, Department of Education, National Chiayi University, Chiayi City, Taiwan

Hughes, J. and Nicholson, H. eds. (2016). *Critical Perspectives in Applied Theatre*. United Kingdom: Cambridge University Press

Jacobsen, R. (2020). A Wave of Plastic. *Orion Magazine* [online], 39(2), no p.n. Available from: https://orionmagazine.org [accessed 22nd January 2020]

Jamieson D. (2009). *Ethics and the Environment An Introduction*. New York: Cambridge University Press

Janet L. (no date). *In the Room with Climate Anxiety*. Department of Psychiatry, University of Rochester, NY

Janks, H. (2010). *Literacy and Power*. New York and London: Routledge.

Jewitt, C. (Ed.) 2009. *The Routledge Handbook of Multimodality Analysis*. London & New York: Routledge

Kapuscinski R. (2008). *The Other*. Poland: Instytet Ksiazki

Kelly, A. (2017). *Eco-Anxiety at University: Student Experiences and Academic Perspectives on Cultivating Healthy Emotional Responses to the Climate Crisis*. Boulder: University of Colorado

Kember, D. Tak-Shing, H. Lam B. Lee, A. Sandra, N.G., Yan, L. and Yum, J.C.K. (2006). The diverse role of the critical friend in supporting educational action research projects. *Educational Action Research*, 5(3), 463-481

Kollmus, A. and Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Research.* 8(3)

Kopano, R. Duncan N. Mkhize, N. Kiguwa, P. and Collins, A. eds. (2004) *Self, Community and Psychology*. Lansdown: UCT Press

Kress, G. (2002). Design and Transformation; new theories of meaning. *Multiliteracies: Literacy Learning and the Design of Social Futures*, Cope B., and Kalanzis M. eds. New York: Routledge

Kress, G. and Van Leeuwen, T. (2006). *Reading Images. The Grammar of Visual Design*; 2nd edition. USA: Routledge

Lehtonen A. Salonen A. and Cantell H. (2019). Climate Change Education: A New Approach for a World of Wicked Problems. *Sustainability, Human Well-Being, and the Future of Education*, https://doi.org/10.1007/978-3-319-78580-6_11

Leitch, R. and Day, C. (2006). Action research and reflective practice: towards a holistic view., *Educational Action Research*, 8(1), pp.179-193

Lekgeu, M.S. and Davis, N. (2017). Perceptions of Climate Change Among Grade 11 Learners in the Tshwane Metropolitan Municipality, South Africa, *Southern African Journal of Education*

Lindstrand, F. (2008). Interview with Gunter Kress. *Designs for Learning*, 1(2), 60-71

Marais, M and Armitage N. (2004). The measurement and reduction of urban litter entering storm-water drainage systems: Paper 2 – Strategies for reducing litter in the stormwater and drainage systems. *Water SA*, 30(4)

March, K. ed. (2007). *First Steps in Research.* Pretoria: Van Schalk Publishers

McNiff, J. (2014). *Writing and Doing Action Research.* London: SAGE Publication Ltd.

McNiff, S. (2019). *Philosophical and Practical Foundations of Artistic Inquiry* in *Handbook of Arts-Based Research*. Levey, P. ed. New York and London: Guilford Press

Meade, R.R. Shaw, M. and Banks S. eds. (2016). *Politics, Power and Community Development*. Great Britain: Policy Press University of Bristol

Mitra, R. (2010). Doing Ethnography, Being and Ethnographer: The Autoethnographic Research Process and I. *Journal of Research Practice*, 6(1), Article M4 2010

Morrow, S. (2016). *The Fires Beneath. The Life of Monica Wilson, South African Anthropologist*. Cape Town: Penguin

Morton, T. (2013). *Hyperobjects Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press

Ndombi, C.L. Kyalo, D.N. and Mulwa, A. (2020). Influence of support service linkage strategies on sustainability of donor funded livelihood projects in Kilifi County, Kenya. *International Journal of Research in Business and Social Sciences*, 9(4), pp. 404-418

Ng'weno, F. Martins, D. Njoki, C. and Chikomo T. main contributors. (2014). *Engaging Young People in Conservation and Education A Toolkit for Site Support Groups*. Kenya: BirdLife Africa Partnership Secretariat

Oxford Dictionary (2020). *Lexico* [online]. Available from: https://www.lexico.com [accessed 14th January 2020]

Padgett, D.K. ed. (2004). *The Qualitative Research Experience*. New York: Wadsworth

Petroelje Stolle, E. Frambaugh-Kritzer, C., Freese, A., and Persson, A. (2018). What makes a critical friend? *Pushing boundaries and crossing borders: Self-study as a means for researching pedagogy*, pp. 147-154

Pihkala, P. (2017). Environmental education after sustainability: hope in the midst of tragedy. *Global Discourse*, 7(1)109-127, DOI, 1080/232 69995.2017.130042

Pihkala, P. (2018). *Eco-anxiety, tragedy, and hope: the psychological and spiritual dimensions of climate change*, Zygon, 53(2)

Pihkala, P. (2019). Climate Anxiety. *MIELI Mental Health*, Finland pp.1-25

Preston, S. (2016). *Applied Theatre, Facilitation. Pedagogies. Practices. Resilience.* London and New York: Bloomsbury

Province of Gauteng: Provincial Gazette (2013). Waste Management By-law, no. 216 [accessed 5th August 2020]

Department of Forestry, Fisheries and the Environment (2000). Programme for the implementation of the national waste management strategy. Starter Document for Waste Recycling; Background Document of Post Consumer Recycling in South Africa and Internationally. Available at: https://www.environment.gov.za [accessed 15th February 2017]

Randle, D, (1999). *Teaching Green, A parent's guide to education for life on Earth*, Green Point

Rees, C. and O. (2019). *One More Generation* [online]. Available from: onemoregeneration.org [accessed 3rd December 2019]

Robinson-Pant, A. (2016). Beyond the Classroom: From Education for Rural Transformation to Learning Within Rural Transformation? *Journal of Education and Research*, Joint Issue 5.2 & 6.1 pp.9-30

Rodda, A. (1991). *Women and the Environment.* UK and USA: Zed Books Ltd.

Rogers, C. (1969). *Freedom to Learn*. Columbus Ohio: C.E. Merrill Publishing Company

Romanyshyn, R.D. (2006). The Wounded Researcher: Levels of Transference in the Research Process. *International Journal for Jungian Studies*, 52(1). Pp.38-49

Roseland, M. (2000). Sustainable community development: integrating environmental economic, and social objectives. *Progress in Planning* 5, pp.73-132 Pergamon

Sala, E. (2020). The Cost of Harming Nature. *National Geographic*. 238(3) pp.15-18

Salopek, P. (2020). Water Everywhere and Nowhere. *National Geographic*. 238(2) pp.74-95

Sanoff, H. (2000). *Community Participation Methods in Design and Planning*. Canada: John Wiley & Sones, Inc.

Schratz, M. and Walker, R. (1995). *New opportunities for qualitative research*. London and New York: Routledge

Schmidt, H.J. and Schmidt, K.J. (1989). *Learning with Puppets guide to making and using puppets in the classroom*. Colorado Springs, United States of America: Meriwether Publisher

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Sen, A. (2000). *Development as Freedom.* England: Anchor Books

Shaughnessy, N. (2015). *Applying Performance. Live Art, Socially Engaged Theatre and Effective Practice.* UK: Palgrave Macmillan

Singer, D.G. Singer, J.L. D'Agnostino, H. and DeLong, R. (2009). Children's Pastimes and Play in Sixteen Nations: Is Free-Play Declining? *American Journal of Play*, v1 n3. p283-312

Stein, P. 2003. 'The Olivantsvlei fresh stories project: Multimodality, creativity and fixing in the semiotic chain'. In Jewitt, C. & Kress, G. (Eds.) *Multimodal Literacy*. New York: Peter Lang. pp. 123-138

Stein, P. (2008). *Multimodal Pedagogies in Diverse Classrooms; Representation, rights and resources*. London: Routledge

Stein, P. and Newfield, D. (2006). Multiliteracies and Multimodalities in English in Education in Africa: Mapping the Terrain. *English Studies in Africa*. 49(1) pp. 1-21

Stevens, L. Tait, P. and Varney, D. eds. (2018). *Feminist Ecologies Changing Environments in the Anthropocene*. Melbourne Australia: Palgrave Macmillan

Swanepoel, H. and de Beer, F. (2006). *Community development. Breaking the cycle of poverty.* 4th edition. Landsdown, South Africa: Juta & co Ltd.

Taylor, P. (2003). *Applied Theatre. Creating transformative encounters in the community.* New York: New York University

Taylor, P, ed. (1996). *Researching Drama and Arts Education*. 1st edition. London: Routledge

Tausig, M. (2011). *I Swear I Saw This; drawings in fieldwork notebooks, namely my own*. London: University of Chicago Press, Ltd.

Theron, J. (2010). Options for Organizing Waste Pickers in South Africa. *WEIGO* [online], Organizing Brief No. 3, pp.1-23

Van Boeckel, J. (2013). *At the Heart of Art and Earth: An Exploration of Practices in Arts-based Environmental Education*, Doctor of Arts Thesis, Aalto University, Helsinki

Van Vlaenderen, H. and Neves, D. (2004). Participatory Action Research and local knowledge in community context. *Self, Community and Psychology*. Landsdowne: UCT Press

Von Wong, B. (2019) *VONWONG* [online]. Available from: https://www.vonwong.com [accessed 2nd January 2020]

Wagner, B.J. (1979). *Dorothy Heathcote. Drama as a learning medium.* Great Britain: Hutchinson & Co. Ltd.

Wall, S. (2006). An Autoethnography on Learning About Autoethnography. *International Journal of Qualitative Methods,* 5(2) pp.146-160

Wimmer, M. (2014). The Complete Guide to Children's Drawings. A Practical Handbook to Children's Emotional Worlds. de http://www. childrendrawingcenter. com/wpcontent

Wildlife and Environment Society of SA, (1999). *The Greenhouse Effect A Teacher's Activity Guidebook*

Zipplies, R. ed. (2008). *Bending the curve. Your guide to tackling climate change in South Africa*. Cape Town: Africa Geographic (Pty) Ltd.

https://wepa.unima.org/en/punch-and-judy/ accessed 08/11/2020

https://africanrockart.org/rock-art-in-africa/significance/ accessed 09/11/2020

https://wellworn.org.za/ accessed 13/11/2020

http//www.jungletheatre.co.za; accessed 14/11/2020

https//www.magnettheatre.co.za; accessed 14/11/2020

http://www.arrep.org.za accessed 14/11/2020

http://www.kiptkenya.org accessed 02/09/2021