

A morphogenetic study of ESD inclusion in Namibia's Senior Primary English
curriculum: A case study of the Khomas Region

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DEDICATION

For Malua, Sunday and Osho

ABSTRACT

Education policies are designed to structure and direct the content and process of the education that citizens receive. This includes the advancement of the Education for Sustainable Development (ESD) policy in formal school curricula. If effectively implemented, ESD can be a significant educational intervention in southern African countries' development trajectories. ESD incorporates the environmental, social and economic pillars of Sustainable Development and it has the potential to curb issues such as poverty reduction, climate change, biodiversity loss and unsustainable patterns of consumption and production. This qualitative case study investigated factors that have historically shaped, and currently shape, the emergence of ESD implementation in the Senior Primary English curriculum in the Khomas Region of Namibia. As a critical realist enquiry, the study sought to go beyond interpretations of the empirical to identify causal mechanisms in the domains of 'the actual' and 'the real'. The study was guided by Margaret Archer's theory of Morphogenesis / Morphostasis and her methodological tool of 'analytical dualism'. The case record consisted of educational documents, teacher questionnaires and semi-structured interviews. The morphogenetic approach highlighted how the implementation of ESD through the Senior Primary English curriculum from 1990 to 2018 was conditioned by the interplay of social and cultural structures and mechanisms and human agency, particularly teachers' agency. The study revealed that although ESD implementation has emerged in the Senior Primary English curriculum, its emergence is not synchronous with the structural and agential entities. The findings point to a policy-structure mismatch which has relevance for policy makers, practitioners and other ESD stakeholders. The significance of this study is that it stands to fill a research gap regarding ESD implementation in Namibia's Senior Primary English curriculum. The study makes recommendations for tangible ways to strengthen ESD practice in Senior Primary English teaching in Namibia such as increasing professional development opportunities to orientate teachers to ESD, strengthening networks that can build teacher agency in relation to ESD, and promoting a theme-based approach to ESD practice in English Language teaching.

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LIST OF ABBREVIATIONS

ATs – Advisory Teachers

CEPs – Cultural Emergent Properties

CPD- Continuous Professional Development

EE – Environmental Education

ESD – Education for Sustainable Development

GAP – Global Action Programme

HODs – Heads of Departments

LCE - Learner Centred Education

MEC – Ministry of Education and Culture

NIED – National Institute for Educational Development

PEPs – Personal Emergent Properties

SEPs – Structural Emergent Properties

UNAM – University of Namibia

UNDESD – United Nations Decade for Sustainable Development

CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

The purpose of this study was to investigate the emergence of the Education for Sustainable Development (ESD) implementation in the Senior Primary English curriculum in the Khomas Region of Namibia. The study provided a morphogenetic account (Archer, 1995) of the emergence of the ESD implementation from 1990 to 2018. The morphogenetic approach enables an investigator to separate structure and agency (this is elaborated in Chapter 2) to identify the causal mechanisms that produce the effects that people experience in society.

This chapter presents the study's contextual background, outlines my interest in the study, and provides an overview of the study's significance. It also presents the research questions, the research site and finally an overview of the chapters making up this thesis.

1.2 Namibian context

Since the country's independence in 1990, the Namibian government has been signatory to international agreements that support Sustainable Development. However, the country faces many challenges to a sustainable future, ranging from widespread socio-economic inequality to the mounting pressures of climate change. Namibia is described as the driest country south of the Sahara (Namibia. Ministry of Environment and Tourism, 2004 [MET, 2004]), with variable rainfall distribution and long periods of drought. This makes the country highly vulnerable to the effects of climate change, most especially increased water stress, intensification of weather events such as seasonal flooding, and the decline of marine fisheries (Boko et al., 2007).

The HIV/AIDS pandemic has already taken a heavy toll on the country's population of 2, 280 716 (Namibia. Namibia Statistics Agency, 2016 [NSA, 2016]). As of 2014, the HIV prevalence rate was at 16% (Namibia. Ministry of Health, 2015) and the SOS Children's Villages (SOS Children's Villages, n.d.) reports that half of the country's 140 000 orphans are

orphaned due to AIDS, and that 6 000 Namibian children die of malnutrition annually, often due to the compounded crisis of HIV/AIDS and food insecurity associated with flooding and droughts.

The latest labour force statistics rate the country's unemployment rate at 34% and note the widening gap between rich and poor (NSA, 2016). Urbanisation is a further obstacle to the country's sustainable development agenda. The African Health Observatory (2012) reports that up to 25% of the Namibian population is now living in informal settlements, and that 10 000 people per year are migrating to the capital city of Windhoek in search of employment, housing and other opportunities.

1.2.1 Context of the study

The study was conducted in Windhoek, which is the country's capital city. Section 1.7 provides the rationale for doing the study in this context. Windhoek is plagued by multiple sustainability issues including poor livelihoods and economic disparities (NSA, 2016). Namibia Statistics Agency notes that 32.6 % of Windhoek's population lives in improvised homes (2016), faced with inadequate sanitation and poor living conditions (ibid; Pendelton, Crush & Nickanor, 2014). These people flock to the city in search of work and other opportunities for survival (Pendelton et al., 2014).

The population of the city has been growing at a rate of 3.9% (NSA, 2017), with the population in the informal settlements growing at a rate of 9.3 % per annum (African Healthy Observatory, 2012). This rate has proven faster than the municipality's supply of services such as serviced land. People are thus forced to grab land and to form pressure groups such as the Affirmative Repositioning movement (Namandje, 2018). This is big threat to ecosystems and woodlands (MET, 2004) as people clear the land to pave way for their homes and plunder the woodlands in search for firewood and construction of their homes. This has often placed the inhabitants in conflict with the city's authorities as reported by Ndalikokule (2019).

Because of the unprecedented influx of people, waste management has also become a problem. Windhoek, once the cleanest city in Africa (Nashuuta, 2019), has since lost that status. Traffic congestion is also of concern in the city leading to accumulated emissions (MET, 2004). As noted earlier, the city lags behind in the provision of services. The few available roads get congested especially during the peak hours of the day.

The drought plaguing Southern Africa did not spare the City of Windhoek. The city has since developed a water management plan (City of Windhoek, 2019). The city, like the country, is governed on the principles of democracy. Residents have the privilege of electing their desired leaders to represent them in the city council, which is the highest decision-making body (Republic of Namibia, 1992).

1.3 Background to ESD adoption in the Namibian curriculum

Internationally, the concept of sustainable development came to prominence in 1987 with the publication of *Our Common Future* (also known as the Brundtland Report) from the United Nations' World Commission on Environment and Development. The report defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (UNESCO, 2014a, p. 10). As a member of the United Nations (UN) since its independence in 1990, Namibia has committed and aligned itself to the UN's policies and strategies towards achieving sustainable development.

Namibia has since adapted its legislation to the UN framework, including the principles that guide its national education system. In 1990, the same year that Namibia gained independence, the UN's *Education for All* (EFA) policy was adopted during the World Conference on Education for All. As a country emerging from a colonial history, Namibia's education policy reflected the new government's goals for its people: access, quality, equity and democracy (Namibia. Ministry of Education Culture [MEC], 1993). These goals were closely aligned with the Education for All policy and in 1993 an Education for All Development Brief was published as a guide for all stakeholders in the new education system.

Education and sustainable development in Namibia have always been prioritised. The two have come to be regarded as each other's enablers and constraints. Namibia's Constitution makes provision for the promotion and maintenance of a healthy environment, with Article 95 (1) of the Constitution stating that:

The state shall actively promote and maintain welfare of the people by adopting, inter alia, policies aimed at maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular,

the government shall provide measures against the dumping of foreign nuclear waste on Namibian territory. (Namibia. Ministry of Information & Broadcasting, 2007, p. 46).

Similarly, the first President of Namibia presented a document entitled ‘The Green Plan’ at the World Summit on Sustainable Development in 1992, just two years after the country’s independence. The Green Plan highlighted Namibia’s commitment to the protection of the environment and supported the inclusion of Environmental Education (EE) in the formal curriculum (Haindongo, 2013).

1.4 My interest in the study

As a Senior Primary English Language teacher in Windhoek, Namibia, my interest in this study was influenced by the exposure I got while studying an Environmental Education / Education for Sustainable Development (EE/ESD) elective course as part of my Bachelor of Education Honours degree at Rhodes University. I got enthused by the combination of my two electives (English Language Teaching was the second). During the programme delivery, there was a time when we focused on the cross-curricular (CC) nature of ESD and on how specific teachers could incorporate ESD in their specific subjects. The activity provoked my curiosity in how ESD implementation in the Senior Primary English curriculum emerged, how other English teachers were incorporating the policy in their practice, and how teachers have been / are being supported to integrate ESD into their English teaching practice.

This research report is an outcome of pursuing that curiosity. The study investigated the implementation of the ESD from ministerial to classroom levels in the Khomas region and focused on identifying and describing the structures and mechanisms being employed in implementing ESD in the Senior Primary English curriculum.

At the level of ESD inclusion, the study sought to identify what educational policies have been or currently are in place, and to establish how they are being communicated to the Senior Primary English teachers. At implementation level, the research sought to identify the structures, mechanisms and properties in place to build Senior Primary English teachers’ capacity to develop ‘best practices’ (UNESCO, 2014a) in incorporating ESD in the Senior Primary English curriculum.

1.5 Significance of the study

The significance of this study is that it stands to fill a research gap regarding ESD implementation in Namibia's Senior Primary English curriculum. Several studies have been conducted into ESD implementation in Namibia (Kanyimba, Hamunyela, Kasanda, 2016), focusing mostly on ESD implementation in Higher Education Institutions (Kanyimba, 2002), and on conventional 'carrier subjects' for environmental learning in the school curriculum such as Geography (Anyolo, 2011, Simasiku, 2012, Zokka, 2016). Tshiningayamwe (2011) focused on the Biology curriculum. Some researchers have focused on other curriculum aspects such as Anyolo (2015) who investigated ESD implementation in secondary schools, Jacobs (2015) who focused on the lower primary environmental education curriculum, and Nashilongo (2009) whose focus was on general education theory and practice. None of these studies focused on ESD implementation in the English Language curriculum. This study provides an account of the prevailing situation and to recommend tangible ways to uphold or implement strategies for strengthening ESD practice in Senior Primary English teaching in Namibia.

Namibia adopted English as the official language at independence (Namibia. The Constitution of the Republic of Namibia, 1990). Subsequently, the Language Policy for Namibian Schools adopted English as the language of teaching and learning in Namibian schools (Namibia. Ministry of Education and Culture, 1992). This, the policy says, would help with the establishment of English as the official language.

English as a language subject is taught across the curriculum. It is taught as a language subject at Junior Primary phase (Grades 0-3) as the medium of instruction at this level is the mother-tongue or the pre-dominant language (Namibia. Ministry of Education and Culture, 1992; Namibia. Ministry of Education, Arts and Culture, 2015 [MEAC, 2015]).

From the Senior Primary all the way through the rest of the schooling phases, English is the medium of instruction and also a compulsory language subject. The rationale for this is to promote English as the official language in Namibia and thus enhance communication with the Global Village (MEAC, 2015]). At the Senior Primary phase, English is scheduled seven times per week in the timetable, the highest time allocation compared to other core subjects such as Natural Science which appears only five times per week (Namibia. Ministry of Education, 2008 [MoE, 2008]).

English teachers are therefore highly likely to meet their learners every school day, and so they are well-positioned to be role models and change agents (UNESCO, 2014a) towards sustainability. The Global Action Programme (GAP) describes teachers as agents of change for delivering the educational responses for sustainable development. Capacity building is necessary as per the GAP on ESD, Priority Area 3 (UNESCO, 2014a). This includes, “integrating ESD in preservice and in-service teacher education” (p. 20) to enable teachers to acquire the knowledge, skills, attitudes and values needed to implement ESD in their practice. The notion of pre- and in-service teachers training is present in Namibia’s curriculum documents (Namibia. Ministry of Education, 2008) – as will be further discussed in Section 2.4.3.3. GAP Priority Area 3 makes provision for the training of in-service practitioners, as well as conducting continuing professional development (CPD) programmes for educators. In-service training and other structures and mechanisms put in place by the Namibian Ministry of Education, Arts and Culture and related organisations to strengthen teachers’ practice will influence the extent to which subject teachers, as agents of change, are enabled to bring about change in their learners’ mindsets and practices towards transforming society for a ‘common good’ (UNESCO, 2015).

This research is well-timed and highly relevant because, at the time of writing this report, the Namibian EE/ ESD implementation is at an advanced stage and is set to be implemented from 2020. The policy’s vision is “for an educated and empowered Namibia with environmentally literate people taking responsibility and action for a sustainable future” (Namibia. Ministry of Education, Arts & Culture and Ministry of Environment & Tourism, 2017, p. 29). To achieve this vision, the policy sets out to, “reorient, integrate and upscale quality EE and ESD in environmental awareness, education and training systems, research and innovation systems, policies, programmes and action for sustainable development” (ibid: 2). This vision and mission build on the assertion from an earlier draft of the same policy that:

We, the people of Namibia, will actively encourage, support and implement environmental education as a means of achieving and fulfilling Article 95 of the Constitution. Environmental education should aim to empower Namibians, from all sectors, to critically evaluate environmental information options, to make informed decisions, and to take actions that will contribute to the goal of environmental and economic sustainability (NEEN, 1999, p. 4)

This is an indication that Namibia is driven to contribute to its local and global sustainable development agenda.

The study's findings and recommendations have the potential to give educational policy makers, teachers (as policy implementers), and other role players insights into best practices for implementing ESD in the Senior Primary English curriculum, and insights into how policy implementation processes could be strengthened or sustained for the Senior Primary English curriculum to contribute successfully to the call for a sustainable world (UNESCO, 2014a). The findings have also identified potential opportunities for further research in this area and could be transferable to other language subjects at this phase, and possibly at other phases in the Namibian curriculum.

1.6 Research questions

This study sought to answer the following overarching research question:

What has shaped, and currently shapes, the emergence of ESD in Senior Primary English Language teaching in the Khomas Region of Namibia?

Three sub-questions are derived from the main question:

- a) What social and cultural structures, mechanisms and properties conditioned the development of ESD in Namibia from 1990 to 2018?
- b) What social and cultural structures, mechanisms and properties condition how current Senior Primary English Language teachers in the Khomas Region come to know about and integrate ESD (or not) in their teaching practice?
- c) What is the current status of ESD implementation in Senior Primary English Language teaching in the Khomas Region?

1.7 The research site and its participants

The research was carried out in Namibia's Khomas Region. This is the region where I live and practise as a teacher and it is also the country's administrative and legislative region. The region houses Windhoek as the country's capital city where most governmental headquarters are based. The decision to carry out the research in Windhoek was due to convenience, as it positioned me in proximity to all stakeholders with whom I needed to engage, and it also allowed me to carry out the study in my own context to establish how the English teachers in this region could best implement ESD in their practice.

According to a Namibian Ministry of Education, Arts and Culture statistics report, this region has 117 schools, and 73 of these schools offer the Senior Primary phase, in which English is a language subject (2017). The schools covering four circuits are further divided into nine clusters (these are explained further in chapter 2.2.5.1). In this context, English is taught both as a first and a second language, with some schools and teachers offering the subject at both language levels. Teachers at both English Language levels participated in the study because the topic which I was investigating was not concerned with the specific syllabus competencies but with the broad teaching practices associated with implementing ESD.

1.8 Overview of the thesis

This thesis encompasses six chapters. Each chapter addresses a specific aspect contributing to the whole of the thesis. The purposes and contents of the chapters are outlined below:

Chapter 1 gives a brief introduction to the study. The chapter provides the contextual background of the study and an overview of the area in which the study took place. The chapter details my role and interest in the study and presents an overview of the study's significance. It also presents the research questions, the research site and finally an overview of the chapters making up this research report.

Chapter 2 commences with a review of literature relevant to the emergence of ESD in the Senior Primary English curriculum, covering literature from local, regional and global contexts. Thereafter, the chapter describes the theoretical framing chosen for the study. It justifies why critical realism, and specifically the morphogenetic approach was used for the study.

Chapter 3 describes the research methodology. It gives a reflective account of the various research methods (document analysis, questionnaires and interviews) used for generating and analysing the data and producing trustworthy research findings. It also presents an explanation of how the data was managed and how ethical issues were addressed.

Chapter 4 is a presentation of the case study data. The chapter begins by giving an historical account of how ESD emerged in the Senior Primary English curriculum, and then shifts to how

this emergence has a direct impact on those who implement the curriculum and the potential ESD has for the attainment of Namibia's sustainable development goal.

Chapter 5 discusses the research findings. The findings are presented in the form of analytical statements about how the ESD emerged, how it is experienced by the teachers, as well as the potential it has for driving Namibia's Sustainable Development goal. The chapter also presents the insights to the research questions presented in Chapter 1.

Chapter 6 concludes the study by presenting a summary of the study, making recommendations emanating from the study, presenting the limitations with which I was confronted during the study, and making recommendations for further research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews a selection of literature with the purpose of supporting the theoretical and analytical frameworks for this study. As a researcher, I reviewed literature on the stance of ESD adoption as a global concept, as well as literature on how the concept is being implemented in formal school curricular globally, regionally as well as locally. I also reviewed literature to inform myself about how the adoption of ESD has been embraced in different contexts, and what implications this could have for the Namibian context. In addition, I reviewed literature to establish and understand what has been happening with regard to ESD implementation in Namibia's Senior Primary English curriculum, which enabled me to understand the case in its specific context.

The second part of this chapter introduces the study's theoretical framing of critical realism. It focuses on justifying the suitability of critical realism for this study as it enables the researcher to identify causal mechanisms that condition what can be empirically observed and thereafter to identify possible solutions to challenges.

2.2 Development as a global priority

2.2.1 What is development?

Escobar (1992) explains that development was chiefly perceived based capital accumulation, technology, and educational advancement and the relevant administration and planning approach to successfully combine these elements. Seers (1969) maintains that a state can be classified as developed when its levels of poverty, unemployment and inequality are minimal. Seers (1969) explains that when all three levels decline from a high level, it is an indication of a period of development for a given country, and an increase in any of the three shows a decline in the country's development. Seers (1969) further explains that the fulfilment of human potential requires other necessities such as adequate education, freedom of speech and citizenship which all cannot be measured in economic terms (ibid). Similarly, Myrdal (1974) states development as

“the movement upwards of the entire social system” (p. 729). Myrdal (1974) asserts that the social system encompasses economic and non-economic entities of the social order including those that are collectively consumed such as the education system and health facilities (ibid). According to Myrdal (1974), the social system can move downward or upwards, or it may remain stagnant. Whichever direction it moves, it effects a circular causation on the entire system to move in that direction. The upward movement of the social system can therefore be regarded as development while the downwards movement points to underdevelopment. From these assertions, Barder (2012) sums it up by implying that development is an emergent property of the economic and social system.

The concept of development started long ago, with the industrial revolution which brought about the idea of progress and consumerism as described by Shanin (1997). Most of the world’s economies depend on natural resources for their survival, hence the continuous plundering alluded to (ibid). This has caused a lot of destruction for third world countries in Asia and Africa, causing them to lose a lot of resources over the years. The scramble for Africa started in the 18th century, with the ravenous harvesting of natural resources to build first world economies (Michalopoulos & Papioannou, 2011). This contributed to underdevelopment of African nations, which by extension contributed to high levels of poverty and low life-expectancy.

2.2.2 Sustainable development

As introduced in Chapter 1.3, the concept of sustainable development was adopted to curb the unprecedented plundering of the world’s resources to cater for the needs of future generations (UNESCO, 2014a). After the Brundtland report, the UN member states have continuously worked together in setting development plans geared towards sustainably developing the world economies (UN-DESA, 2016). This was done by setting development goals by which the member states had to comply. The initial development goals were the Millennium Development Goals (MDGs) (UN DESA, 2016). The MDGs were eight with eighteen targets and set achievement dates (ibid). They covered a period between 2000 and 2015 and they were succeeded by the Sustainable Development Goals (SDGs), which were launched in 2016 (UN General Assembly, 2015). The seventeen SDG have 169 targets, which are interlinked and indivisible. The SDGs were implemented in 2016 and will run until 2030 as the year the world

visions to be transformed for the better (UN General Assembly, 2015). The SDGs build on the successes of the MDGs, carrying the development agenda towards the year 2030.

2.2.3 Debates on development

There has been and continues to be critiques for the concept of development from various contexts. According to their website, the World Bank's mission is, "To end extreme poverty and promote shared prosperity in a sustainable way" (World Bank, 2018). Their work is to reduce poverty and support development in developing countries of the world. Some commentators, however, such as (Kopnina, 2014; Follea, 2015) lament that the World Bank and International Monetary Fund's agenda through their Structural Adjustment Programmes have caused more harm than good to upcoming economies by imposing conditions that instead keep recipient governments in more debt and then averting their perceived development agenda as they are often unable to meet the stipulated conditions. This remands them at the lower end of the development level. The situation has caused many African economies to slow down and caused an alarming increase in the gap between the rich and the poor (ibid). Notably, the rich in these poor countries are usually the elite politicians who corruptly buy into these deals for personal gain (Follea, 2015).

Gudynas (2013), writing from a Latin-American perspective, stresses the need to distinguish between '*development alternatives*' and '*alternatives to development*' when talking about the essence of development. Gudynas (2013) defines the former as referring to the various options for correcting and fixing or modifying current development whereby conceptual foundations are accepted, and focus is paid to the best means to move the process forward. With '*alternatives to development*', the aim is to denounce conceptual frameworks based on ideological foundations but rather to explore social, economic and political orders different from what we have been considering as development. Gudynas (2013) argues that, for Latin America, the preference should be alternatives to development because, in Gudynas's (2013) view, development alternatives do not solve underlying problems.

After the Brundtland Report (1987), there was much critique on the concept of *sustainable development*. Daly (1990) refers to it as an oxymoron, a self-contradictory concept which was open to misinterpretation and could not be translated into actual policies. Others, like Redclift (2005), criticised the use of neo-liberalist solutions to solve environmental and social problems

associated with early understandings of sustainable development. He concluded, however, that having passed its infancy, ... 'sustainable development' needs to be linked to new material realities, the product of science and technology and associated shift in consciousness' (p. 225).

Indeed, three decades since the Brundtland report, there is need to locate sustainable development in new perspectives. Although it may have been founded on political and economic grounds as stated earlier, the concept has evolved to focus on environmental and social issues of human life and the planets' ability to sustain its future generations. To sustain the resources available to us for generations to come is to show our ethical consideration for the future of the planet though we may not know who inherits it (Behrens, 2012).

As a citizen of a developing country, I am concerned about the exploitation of small economies by the industrialised countries hiding behind heavily taxed conditional Structural Adjustment Programmes of the World Bank and other like agencies. This trend may not see the recipient economies reach developed status; instead they will remain dependent on the so-called developmental programmes to the detriment of the masses. As it persists, the concept of sustainable development raises the questions such as: what are we sustaining, for whom, and why? The next section explores this contested concept of development as a Namibian priority.

2.3 Development as a Namibian priority

Namibia as a nation depends on its economy to support its society. The country's economy is dependent on its rich natural resources and unique environment (Republic of Namibia, 2000), but, as a young economy, classified as a developing nation, Namibia is also confronted with multiple issues which continue to impact its desired development goals. These issues, which will be discussed in more detail in the next section, necessitate developmental strategies to ensure that the nation's development is realised and that it is on par with international legislation and agreements.

Development is aimed at meeting the needs of the country's populace. In line with the then MDGs, and now SDGs, Namibia adopted the National Development Plans (NDPs 1, 2, 3, 4 and 5). The NDPs are successive and formulated as medium-term development plans towards realizing Vision 2030. Each development plan covers a period of five years and builds up on the previous one as will be discussed below.

NDP1, as the first development plan, was adopted in 1995 and covered the period 1995/1996-1999/2000. This followed the transition period after Namibia's independence, and it focused mainly on diversifying the economy and consolidating the achievements realised during the initial five years of independence (Namibia. National Planning Commission, 1995).

The second development plan was implemented soon after the completion of NDP1. This development plan covered the period 2001/2002 to 2005/2006 and focused more on issues and threats to sustainable development in Namibia. NDP2 considered environmental and sustainability aspects in sectoral, cross-sectoral and regional development planning (Namibia. National Planning Commission, 2000).

NDP3 spanned 2007/08 to 2011/12 and it was the first systematic attempt to translate Vision 2030 objectives into concrete policies and actions. Thus, NDP3 stands as the first medium-term strategic implementing tool towards the systematic achievement of the Vision 2030 (Namibia. National Planning Commission, 2007).

NDP4 covered the period spanning 2012/2013 to 2016/2017 and adopted three goals:

- High and sustained economic growth
- Increased income equality and
- Employment creation (Namibia. National Planning Commission, 2012).

The country is currently implementing the latest development plan, NDP5, which is Namibia's third last development plan before 2030. This current development plan is focused on industrialising the country while adhering to the four pillars of sustainable development:

- Economic Progression
- Social Transformation
- Environmental Sustainability and
- Good governance (Namibia. National Planning Commission, 2016).

The development plans act as evaluative measures against which the country's development is measured. The lessons learnt from each development plan are used as correctional measures on which the subsequent development plan is focused. With just twelve years left before the year 2030, the government of Namibia remains committed to ensuring that the Vision is realised. As a UN member state, Namibia has prioritised sustainable development in its development agenda.

2.3.1 Sustainable development as a Namibian priority

As a member of the United Nations (UN) since its independence in 1990, Namibia has committed and aligned itself to the UN's policies and strategies towards achieving sustainable development. The Namibian government has been signatory to international agreements that support sustainable development. As described in Chapter 1.3, the country is inundated with various challenges in its quest to a sustainable future.

In the light of these and other inter-connected challenges, the Namibian government continues to prioritise a sustainable development agenda (Namibia. National Planning Commission, 2017). The fifth, and most recent, National Development Plan (NDP5) was informed by the United Nations Agenda 2030 (UN General Assembly, 2015), the Southern African Development Community's Integration Strategic Plan (African Development Bank, 2011), Vision 2030 (Office of the President, 2004), and the national Harambee Prosperity Plan (Namibia. Office of the President, 2016). In line with the United Nation's Millennium Development Goals (United Nations, 2000), and now the Sustainable Development Goals (United Nations, 2015), Namibia is targeting 2030 as the year in which the country will be on a par with its counterparts from the developed world. It is mainly concerned with the people's social, economic and overall well-being (Namibia. Office of the President, 2004).

In pursuit of these ambitious and wide-ranging goals, Namibia, like other UN member states, has seen the need to incorporate ESD in the education system as identified in Chapter 1.2 and elaborated below.

2.4 ESD development and implementation

2.4.1 Background to ESD adoption

The factors that necessitated the adoption of *Our Common Future* in 1987 included the increasing climatic conditions and endless plundering and harvesting of natural resources without consideration for the consequences carried by such actions. The nation states were concerned about the consequences the above would have on the future of the planet and its inhabitants. The exploitation of the natural resources had negative effects on ecosystems and on biodiversity. Surprisingly, some referred to this uncontrolled destruction as progress (Shanin,

1997) and it was regarded as advancement. Prosperity was measured on how much progress was made in terms of industrial evolution and wealth accumulation. This development was happening at the expense of the environment, reducing its capacity to sustain its inhabitants. The effects of this industrial revolution became evident as changes in climatic conditions, natural disasters and loss of biodiversity occurred.

The era was characterised by greed and social injustice because eighty percent of the earth's resources were being and continue to be consumed by only twenty percent of the world's population (UNEP, 1985). However, the negative consequences that accompanied such consumption patterns were not limited to the twenty percent of consumers as such effects have no regard for national borders (UNESCO, 2015). In fact, eighty percent of the world population (mostly in Africa and Asia) were, and continue to be, worst affected by environmental disasters as they are poorly equipped to mitigate the effects of habitat destruction, biodiversity loss, pollution of land, water and air, global warming and climate change as they lack the capacity to mitigate the effects (Hallegatte, Bangalore, Bonzanigo, Fay, Kane, Narloch, 2014).

The critical role of education was brought to the fore at the Earth Summit in 1992 (UNESCO, 1992) and recorded in Chapter 36 of Agenda 21. Agenda 21 viewed education as an essential tool for achieving sustainable development and identified four areas of action for education. These are to:

- Improve the quality of education
- Reorient existing education systems to address sustainable development;
- Develop public awareness and understanding; and
- Provide training for all sectors of private and civil society.

At the World Summit on Sustainable Development held in Johannesburg in 2002, commonly known as the Rio +10 summit, it was resolved that the period between 2005-2014 be a United Nations Decade of Education for Sustainable Development (UNDESD). The ultimate vision of the UNDESD was to integrate the values inherent in sustainable development into all aspects of learning to encourage changes in behaviour that promote a more sustainable and just society for all (UNESCO, 2005). UNDESD was envisioned as a means that would afford everyone a chance to benefit from education and acquire values that would contribute to a sustainable future and transform society positively. The vision translated into five objectives, to:

- Give an enhanced profile to the central role of education and learning in the common pursuit of sustainable development;
- Facilitate links and networking, exchange and interaction among stakeholders in ESD;
- Provide a space and opportunity for refining and promoting the vision of, and transition to sustainable development – through all forms of learning and public awareness;
- Foster increased quality of teaching and learning in Education for Sustainable Development;
- Develop strategies at every level to strengthen capacity in Education for Sustainable Development (ESD). (UNESCO, 2006).

In the document, Framework for the UNDESD International Implementation Scheme, ESD is supposed to incorporate the following features:

- Interdisciplinary and holistic: learning for sustainable development embedded in the whole curriculum, not as a separate subject;
- Values-driven: it is critical that the assumed norms – the shared values and principles underpinning sustainable development – are made explicit so that that can be examined, debated, tested and applied;
- Critical thinking and problem solving: leading to confidence in addressing the dilemmas and challenges of sustainable development;
- Multi-method: word, art, drama, debate, experience, ... different pedagogies that model the processes. Teaching that is geared simply to passing on knowledge should be recast into an approach in which teachers and learners work together to acquire knowledge and play a role in shaping the environment of their educational institutions;
- Participatory decision-making: learners participate in decisions on how they learn;
- Applicability: the learning experiences offered are integrated in day to day personal and professional life;
- Locally relevant: addressing local as well as global issues and using language(s) which learners most commonly use. Concepts of sustainable development must be carefully

expressed in other languages – languages and cultures say things differently, and each language has creative ways of expressing new concepts (UNESCO, 2006, p. 17).

ESD incorporates the environmental, social and economic pillars of Sustainable Development and it has the potential to curb issues such as poverty reduction, climate change, disaster risk reduction, biodiversity loss and unsustainable consumption and production (UNESCO, 2014a).

The UN General Assembly, “encourages Governments to consider the inclusion ... of measures to implement the Decade in their respective education systems and strategies and, where appropriate, national development plans” (UNESCO, 2005). Two sub-goals of the UNDESD at national level were:

- Provide an opportunity for refining and promoting the vision of and transition to sustainable development – through all forms of education, public awareness and training.
- Give an enhanced profile to the important role of education and learning in sustainable development (UNESCO, 2005).

The Namibian government recognised that there were links between the contents of the Millennium Development Goals, Education for All, as well as those of the UNDESD such as their focus on Basic Education. The government, through the Namibia Ministry of Education, thus endorsed the UNDESD although ESD did not yet exist as concept in the Namibian curriculum.

The decade was launched as agreed. Nearing the end of the UNDESD, the United Nations convened a conference on sustainable development in Brazil. The conference, famously known as Rio +20, resolved to launch the Sustainable Development Goals (SDGs) which would build on the Millennium Development Goals (MDGs). The SDGs, which are also known as the Global goals are seventeen in total, addressing “the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice” (MEAC, 2015). All seventeen Goals are interlinked and are aimed a more and more sustainable future for all by the year 2030 (UNESCO, 2015). The Goals were adopted to replace the then MDGs and bring a more inclusive aspect to global development. Goal 4 addresses Quality Education, and its target 4.7 focuses on the acquisition of knowledge and skills for promoting sustainable development through ESD amongst others (UNESCO, 2015). Namibia as a UN

member state committed to the SDGs and they have been adopted by the current president into his development plan (Harambee Prosperity Plan).

At the Rio +20 conference it was resolved that Education for Sustainable Development be promoted beyond the UNDESD. The SDGs are targeting the year 2030 as the year of realisation.

The GAP on ESD was endorsed in 2013 (UNESCO, 2014b). The GAP was launched the following year as a follow up to the UNDESD and its purpose was to promote ESD beyond the UNDESD which ended in 2014. It would generate and scale up ESD to accelerate progress towards sustainable development. The GAP had two main objectives in contributing to the 2030 Sustainable Development agenda:

- Reorienting education and learning so that everyone has the opportunity to acquire the knowledge, skills, values and attitudes that empower them to contribute to a sustainable future.
- Strengthening education and learning in all agendas, programmes and activities that promote sustainable development. (UNESCO, 2014a, p. 14)

Many countries including Namibia have endorsed the GAP and are working towards transforming learning environments to adapt to this nuanced way of learning. The GAP, which ends in 2019, was reviewed in 2018 and various recommendations were made for the future of ESD (Tshiningayamwe, 2018). The next section explores the concept of development and what it means for Namibia.

Kethloilwe (2007a) acknowledges that “policy-making and management processes are complex as they involve linkages connecting social and politico-economic factors with policy implementers involving issues of actors’ understandings, interpretations and power relations” (p. 46). Kethloilwe (2007a) further observes that “education policy reform interventions such as the introduction of environmental education may enable or constrain policy agents (such as teachers and education officers). Policy implementation may cause frustration amongst agents, particularly where constraints far exceed enabling factors” (2007b, p. 171). This study sought to trace the emergence of ESD implementation in the Senior Primary English Language teaching. The multiple data collection methods I used for this study (*see section 3.3*) enabled me to identify constraints and enablers as will be discussed in Chapter 5.

2.4.2 UNESCO's advancement of Education for Sustainable Development

Education has come to be regarded as one of the mediums through which sustainable development can be achieved. As alluded to earlier, ESD relates to the three pillars of sustainable development. UNESCO (2014a) elaborates that, “ESD empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society for present and future generations while respecting cultural diversity” (p. 12). ESD orients those who go through it to issues that they are confronted with, and helps them find solutions to solve them, thus encouraging critical and futuristic thinking for the current and emerging world problems. *‘It is centred around lifelong learning and quality education, with the goal of transforming learning environments, learning content, outcomes and teaching practice’* (ibid: 12). ESD is thus concerned with recreating learning environments to be accommodative of relevant learning contents, outcomes and pedagogies, and the need to adapt to the raising need of quality education.

ESD as a term includes activities in line with UNESCO's (2014a) principles, irrespective of the term used in the specific education system. Several terminologies: environmental education, sustainability education, global education, development education and others, have been used to refer to ESD. However, the terminologies do not carry as much weight as the principles that they support. The Namibian school curriculum has adopted the term ‘environmental learning’, (MEAC, 2015).

2.4.2.1 Namibia's response to Education for Sustainable Development

As discussed in Chapter 1, the environment has been at the centre of Namibia's policy formulation since its independence. Many aspects of ESD also existed in the then South West African (Namibia) curriculum long before independence (Kanyimba, 2002). The concepts were covered in subjects like General Science and were known as Environmental Education, a term that is still widely used in Namibia. The Namibian Institute for Educational Development (NIED) coordinated various projects in collaboration with foreign organisations and NGOs. One such project was Enviroteach which was supported by the Swedish government and coordinated by the Desert Research Foundation of Namibia. It focused on incorporating Environmental

Education in the secondary school curriculum (Kanyimba, 2002). This is discussed in more detail in Chapter 4.

The Namibian curriculum outlines Environmental Learning as a cross-curricular aspect (MEAC, 2015]). Having been a cross-curricular aspect since the second curriculum revision in 1997, the call was reinforced in response to the United Nations' declaration of the (UNDESD) 2005-2014, whose goals were:

To integrate the principles, values and practices of sustainable development into all aspects of education and learning, [and] that this educational effort will encourage changes in behaviour that will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations (UNESCO, 2005:6).

UNESCO (2014a) prescribes that ESD is to be incorporated at all levels of education, and across all learning subjects. In compliance with this UN agreement, Namibia produced its own ESD Strategy 2009-2014. Its aim was to:

... integrate sustainable concepts and principles into all education and training initiatives and programs at all levels of the system to contribute to a more sustainable future for Namibians in terms of environmental integrity, equitable economic viability and a just society for present and future generations. (Namibia. Ministry of Education, 2009, p. viii).

It was this strategy that influenced the curriculum currently implemented in Namibian schools. As alluded to above, environmental learning was adopted as a cross-curricular theme, thereby integrating ESD from primary level all the way to tertiary level in “preparing students to deal with issues now and in the future” (MEAC, 2015), p. 14). In line with this, the Senior Primary English Curriculum also lists Environmental Learning as a cross-curricular issue (MEAC, 2015). Other cross-curricular aspects in the Namibian school curriculum include HIV and AIDS; Population Education; Education for Human Rights and Democracy (EHRD), Information and Communication Technology (ICT) (ibid), which also align with the principles and goals of ESD.

Environmental learning has maintained its cross-curricular status in the Namibian curriculum to date. The motive to adopt environmental learning as a cross-curricular issue was due to “the

challenges and risks we face if we do not care for and manage our natural resources” (MEAC, 2015, p. 4) and it was driven by the acknowledgement that:

our learners need to understand the nature of these risks and challenges, and how they will impact our society and the quality of life of our people now and in the future. They must understand how these risks and challenges can be addressed on a personal, local, national and global level and how they can play a part in addressing these risks and challenges in their own school and local community (ibid).

In this study, Environmental Learning/Environmental Education refer to the curriculum terminology as used in the curriculum documents, and ESD is used to refer to the nuanced global idea as the latter concept does not feature in the curriculum documents since “education policy is far behind – education is not changing at the pace of change” (Urenje, 2018, pers. Comm.). As indicated in section 1.4 and 1.5, Namibia is awaiting the adoption of the said EE/ESD implementation. The process of formulating this policy started in 1994 and it was developed into a draft policy in 2010 (Namibia. Ministry of Environment & Tourism, 2017). The formulation of the policy is spearheaded by the Namibia Environmental Education Network (NEEN) with support from the Namibian Ministry of Environment and Tourism and the Namibian Ministry of Education Arts and Culture, and in collaboration with various line ministries and non-governmental organisations. The policy is aligned to international conventions and agreements such as Resolution 57/254 of the United Nations, which launched the DESD as described in section 1 (ibid). The latest draft was recently reviewed by stakeholders from various organisations (I was a participant in this reviewing process) to accommodate the latest UN resolutions such as the Sustainable Development Goals (SDGs), and the Global Action Programme (GAP). This policy, which targets formal, non-formal, informal learning and professional/workplace channels, was expected to be finalised and launched in 2017 (Republic of Namibia, 2017) but due to bureaucratic constraints, that deadline could not be met.

2.4.2.2 Critiques of ESD

The introduction of ESD has not been not embraced by all. Jickling (1992), for example, disagreed with the lack of attention to the philosophy of education and the whole idea of

education for sustainable development. He expressed his concern that children being educated *‘for’* something predetermined was tantamount to indoctrination and undermines the purpose of education. He continued to express his concern that being educated ‘for sustainable development’ amounted to little more than training people to fill work positions aligned with the agenda of sustainable development but disregarding important educational aims such as developing people’s ability to think for themselves (ibid). Similarly, Jickling & Wals (2008) lament that: “Education appears simply and solely about preparing individuals to join the local labour market to nourish the global marketplace and satisfy corporate needs” (p.2). They specifically criticise the application of market solutions to educational problems. Wals (2011) reiterates the need for education to be an emancipatory process. He emphasises the need for “alternative forms of education and learning that can develop the capacities and qualities individuals, groups and communities need to meet the challenge of sustainability” (p, 180), referring to transdisciplinary learning, transformative learning, anticipatory learning, and social learning among others.

In later work, Jickling and Wals (2012) reiterate these sentiments. They criticised the idea of ESD, arguing that ESD was a way of doing away with environmental education. More specifically, they disagree with the notion of education being *for* something such as sustainable development. Echoing Jickling’s earlier work, their argument maintains that education being *for* something takes away the purpose of education. Their view is that the concepts of ESD and sustainable development are used as a conspiracy to weaken environmental education and to keep the masses distracted from important issues affecting the world such as deep democracy and capitalism. Towards the end of this work, however, they acknowledge that environmental and ecological aspects do exist within ESD, but they caution the need for practitioners to be alert and critical on how they engage with ESD. Similarly, Kopnina (2012; 2014) expressed concern that focusing education on the economy alone has potential for ecological neglect.

Writing from an African perspective, Odora-Hoppers (2017) argues against the notion of ESD in African context. She argues that ESD does not adequately address the problems and issues that Africa is confronted with, and that those spearheading the concept of sustainable development are selective on which development to promote, and that they ignore other important aspects such as cultural education.

Considering the above views, I agree that education is the best approach through which sustainability could be achieved, and that the adoption of ESD consolidates the aspirations of the Brundlant Report of ensuring the planet's ability to be able to provide for generations to come. The onus, however, remains on practitioners to ward against taking a narrow, elitist or dogmatic approach to what sustainability means and how it should be achieved. Educators – including myself and other Namibian English teachers – should refrain from neglecting the ecological aspects of the environment (Jickling & Wals, 2008; Wals, 2011; Kopnina 2012; Jickling & Wals, 2014; Kopnina, 2014) and through their work, encourage mental abilities such as critical thinking (Wiek et al.2011, UNESCO, 2006, SEEN, 2012). Educators need to be creative to ensure that they simultaneously maintain the purpose of education and instil environmental and social values through context-appropriate practices. It is important to note that ESD is highly context-dependent and thus practitioners should select context-specific contents when planning lessons whilst locating their practices within the global setting (UNESCO, 2006).

2.4.2.3 Implementation of ESD from different contexts

ESD has gained prominence across various global contexts. SD does not feature prominently in the Swedish curriculum but it manifests as a cross-curricular issue whereby each teacher is expected to teach it (Bouve-de Pauw, Gericke, Olsson & Berglund, 2015). Writing from the Autralian perspective, Gough (2006) identifies the Sustainable Schools programme as meeting the purpose of ESD. As we implement the many programmes in line with ESD, we are cautioned to guard against being carried away by new language and terminologies that seem to 24omanticise us because of their newness (Sauve & Berryman, 2005). They advise that as researcher we should be reflexive in our agency and with the worldview that we advance towards ESD.

Southern Africa can pride itself for having established an association for Environmental Education, EEASA was founded in 1982 (Irwin, 2007) with the purpose of having a formal structure for collective engagement and ased on the principle of idealism. It was through one of the EEASA conferences where my interest was further enhanced through my interactions with participants from several member states and beyond. Lupele and Lotz-Sisitka (2012) identified several ESD initiatives from Southern Africa. The initiatives were drawn from different settings such as formal, non-formal and informal education trajectories.

Locally, elements of ESD have been incorporated in the national development plans as elaborated in section 2.3.1 (Namibia, Office of the President, 2004, 2016; Namibia. National Planning Commission, 2016). ESD is promoted at all levels of education (formal, non-formal and informal). The envisaged national EE/ESD policy will be a milestone in pushing the ESD agenda forward. The Namibian Ministry of Environment and Tourism has established, and manages several environmental centres countrywide (NEEN, 2018). There are also non-governmental organisations like NaDEET who initiate several ESD activities. As key partner on the UNESCO GAP on ESD, NaDEET has made its spot in the global village by scooping international awards such as the 2018 UNESCO-Japan prize on ESD (UNESCO, 2019). The Namibian president has declared September 21 as a National Clean Up Day. Started in 2018, the day will now be recognised yearly as a means to raise environmental awareness (The Economist, 2019).

2.4.3 Education for Sustainable Development in the Senior Primary English Curriculum

2.4.3.1 English Language as an ESD ‘carrier subject’

UNESCO-IBE (2013) defines a carrier subject as “a subject that by its scope and nature is more likely to help learners develop certain knowledge, skills and attitudes that are not the domain of a single subject” (p. 10). Although issues of ESD are not explicit in the subject content of English (Fien, 1993), the subject still stands as a carrier subject because it allows the teacher to be creative in designing lessons and fostering critical thinking skills (Wiek et al. 2011, UNESCO, 2005). English teachers can thus select themes that support sustainable development and they can work creatively to find ways to make their lessons both enjoyable and educative.

The incorporation of well-selected themes coupled with ‘ESD pedagogies’ (UNESCO, 2012) can turn English classrooms into sustainable development hubs. ESD pedagogies encourage learners to ask questions, analyse and think critically (ibid). Teaching methodologies such as class discussions, issue analysis, and storytelling can enrich learners’ mental capabilities (ibid). Critical thinking is among the skills needed for solving emerging problems and promoting sustainable development (Wiek et al., 2011, Anyolo, Kärkkäinen & Keinonen, 2018). UNESCO’s document, Education for Sustainable Development Goals: Learning Objectives (2017), clarifies the competencies they consider to be key ones. The document states that these should “include cognitive, affective, volitional and motivational elements” (p. 10). The nature of

the subject stimulates creativity and gives teachers the liberty to select suitable approaches to holistically develop children.

The wide-ranging nature of English as a language subject potentially creates opportunities for learners to develop skills to deal with long-term societal problems as they arise, not just classroom situations. It is thus imperative that English teachers are equipped to create rich lessons that motivate learners to be responsible citizens towards a sustainable future (UNESCO, 2014a).

2.4.3.2 Senior Primary English teachers as change agents for a sustainable Namibia

The approaches that English language teachers adopt in their practice have an impact on how learners perceive the subject contents. The content-based instruction approach to language teaching has received substantial praise as a mechanism for teaching both language and content concurrently (Hauschild, Poltavtchenko and Stoller, 2012; Mehdaoui, 2015) writing from Algeria, East Timor & the United States of America respectively. Correspondingly, Gursoy (2010) advocates for a theme-based approach to language teaching. The theme-based approach allows teachers to focus on a chosen theme to deliver the language contents. This has the advantage of enabling the delivery of both language and contents similar to content-based instruction, which plays a double role in preparing learners for a sustainable Namibia.

In the Namibian context, the curriculum documents comment on the advantages of thematic teaching through the grades. It further recommends the need to use the local environment and community as classroom extensions (UNESCO, 2006; Namibia. MEAC, 2015). The subject-specific document, however, states that, “In language syllabuses the language skills are the themes and topics” (MoE, 2008). These may have implications for teachers’ lesson planning, but the onus remains on teachers to plan creatively to incorporate ESD in their language teaching.

One response could be for teachers to include topics that address Namibia’s environmental challenges. As teachers incorporate the various language skills and adapt ESD teaching techniques: simulations, class discussions, issue analysis and storytelling (UNESCO, 2012) in their practice, learners stand a chance to develop problem-solving skills for a sustainable future for Namibia.

The curriculum plays a very important role in the education of past and future generations. Despite the intended curriculum being formalised and explicit, and made available to every practitioner as a guide for their practice, the hidden curriculum also plays a major role in preparing learners for the future (Fien, 1993; Bolstad, 2005; Kethloilwe, 2007; Anyolo et al, 2018). Alsubaie (2015) describes the hidden curriculum as referring to “the unspoken or implicit values, behaviours, and norms that exist in the educational setting”. These are the elements of the curriculum that happen unintended but still exert a level of influence in shaping the values, behaviours and norms of learning communities such as schools. The choices and conduct of teachers, the behaviour of fellow learners and external agencies visiting a school all influence the hidden curriculum.

The hidden curriculum as unintended can be influenced by activities happening around school environments. Those learners who may not be part of the organised clubs and societies as mentioned above also tend to adapt their lives to what they see happening around them. With that said, it then also calls for teachers to be role models in their behaviour. The things that teachers do have potential to influence learners’ behaviour. If teachers practice sustainability values, they will influence their learners positively through example and when they do otherwise, so is the effect on learners’ behaviour. Teachers as role models spend more time with learners than learners do with their parents, so the things teachers do, even outside the formal school curriculum have great potential to influence learners’ behaviour and the choices they make.

The introduction of co-curricular activities such as schools’ environmental clubs and debate clubs (MEAC, 2015) and the introduction of the Eco-Schools Namibia Initiative (Shakumu, 2018) have the potential to sensitise schools to a whole school approach (UNESCO, 2006; 2015, Wals, & Benavot, 2017) which can open children’s perspectives on life and develop them as critical thinkers able to participate fully in the creation of a sustainable future (UNESCO, 2006, Wiek et al., 2011). Schools should thus educate children *in/through, about* and *for* the environment as advocated by (Fien, 1993; Lee, 1997) and recognise and celebrate significant environmental days such as Arbor Day and similar activities in anticipation of influencing learners’ behaviour.

2.4.3.3 Building capacity of Senior Primary English teachers in Namibia

As indicated in Chapter 1, The National Subject Policy Guide for English Second Language makes reference to Continuous Professional Development of teachers. It states that, “schools

should partner and share responsibility for in-service training of staff members” (MoE, 2008, p. 5). It further encourages teachers to share information, experiences and strategies they get during training (ibid). In the mid-nineties, professional development programmes were designed for Namibia’s pre-service and in-service English Language teachers (O’Sullivan, 2002), specially to foster a communicative approach to teaching language skills and continuous assessment.

Currently, team building, and continuous professional development are seen to be catalysts in improving the delivery competence of teachers (MoE, 2008). This is perceived to hold potential for strengthening teachers’ practice and enabling them to help to change learners’ mind sets and perspectives.

In Namibia, schools in each region are divided into inspection circuits. A circuit is a group of schools managed by one inspector and divided further into clusters. There are between five to seven inspection circuits per educational region. Clusters are smaller groups of schools geographically close to each other (Dittmar, Mendelsohn & Ward, 2002). The cluster system delivers a framework for a more comprehensive and well-coordinated programme of training to be delivered efficiently at each cluster centre. Training needs can also be assessed per individual cluster, rather than having a one-size fits-all programme for the whole region (ibid).

A cluster consists of about five to seven schools with one of the schools in the group as the cluster centre school, making the specific school’s principal the cluster principal. The cluster centre school acts as the coordinator of activities, and subject management for the specific cluster ensures that documents such as schemes of work are identical. At cluster levels, teachers are expected to share experiences, practices and planning. Teachers also share their challenges and identify training needs (MoE, 2008). This is an effective way to gain input from both novice, veteran and subject experts and thus it is a way of building capacity and improving teachers’ practice.

The cluster grouping makes it easy for teachers to meet often and share the best practices. It also makes it easier for advisory teachers to capacitate the teachers. Clusters are thus a good medium through which capacity building can be done as new developments such as ESD are introduced to the Senior Primary English curriculum (Dittmar et al., 2002; Namibia. MoE, 2008). The advisory teachers, however, do not have a pre-set training programme according to Hashiti (personal communication, 2017). Concurring with Dittmar et al. (2002), he emphasised that in-

service training of Namibian teachers was needs-based and that teachers in their respective clusters need to share their training needs with their advisory teachers. This raises concern about the effectiveness of advisory teachers if training needs must be indicated by those in need of training as it denies benefit to schools or clusters that do not identify their specific training needs. This risks creating a disparity amongst teachers' professional development as teachers in certain contexts could be better informed than others due to the awareness they may have of emerging training needs and opportunities.

Fien (1993) emphasises the need to offer ESD pre-service training to teachers. Twenty-one years later, McKeown (2014), reiterates a similar stance pointing out that both pre-service training and in-service are significant for teachers' practice. Teacher training situates teachers at an advantage for delivering rich lessons in creating a sustainable world (UNESCO, 2014a). The 'middle-school', which in the case of Namibia is the phase of focus for this study, is said to be proven by research to be "the formative years for development of attitude" (Fien, 1993, citing Knapp, 1987). Teachers teaching at this phase thus need to be well-prepared as to enable them to foster the development of positive attitudes in learners towards the sustainable development (UNESCO, 2006; Wiek et al. 2011).

A UNESCO programme, 'Sustainability Starts with Teachers', which is a joint initiative of Rhodes University, Swedish International Centre of Education for Sustainable Development and Southern African Regional Universities Association, is currently being rolled out in SADC Universities (UNESCO, 2018). The University of Namibia is also implementing the programme which is aimed at building the capacity of secondary phase teachers. The programme orientates secondary teachers to ESD and sustainability. Such a programme would also be suitable for Senior Primary English Language teachers. The programme is a response to the GAP on ESD on scaling up ESD action in all areas of education.

In the preceding sections, I reviewed global, regional and local literature to ascertain what there is, and what gaps exist regarding ESD implementation in the Senior Primary English curriculum. The next section explores the importance of under-labouring the study with a broad theoretical framework that would enable me to see beyond what is empirically observable.

2.5 Theoretical and analytical framework

2.5.1 Critical realism

Critical realism is a philosophical approach famously associated with Roy Bhaskar's general philosophy of science. He described his work as transcendental realism, and a special philosophy for human science which he called critical naturalism (Bhaskar, 1979) to describe a distinction between natural and social worlds. Over time, the two terms (transcendental realism and critical naturalism) were merged by other authors to become what is presently known as critical realism. Basic critical realism presupposes that it is analytically possible to separate ontology from epistemology, which allows for the two components to be studied independently (Sayer, 1997). Bhaskar's ontology contains three domains: the real, the actual and the empirical as illustrated in Figure 2.1 below. Based on Bhaskar's ontology, the inner-most layer, 'the Empirical' represents the things that are observable and can be experienced. These are things that we can see and feel. The next layer, 'the Actual' represents events and non-events which may or may not be observable, and it is these things that enable us to experience the empirical reality. The outer-most layer, 'the Real' represents causal structures and mechanisms as stated earlier (Bhaskar, 1975). Structures are arrangements of institutions and people interact, while mechanisms refer to elements and their underlying links that repeatedly lead from initial social states to subsequent ones. These structures and mechanisms have enduring properties which are not immediately observable, and it is these properties that enable or constrain change, as will be discussed in more detail in the next section.

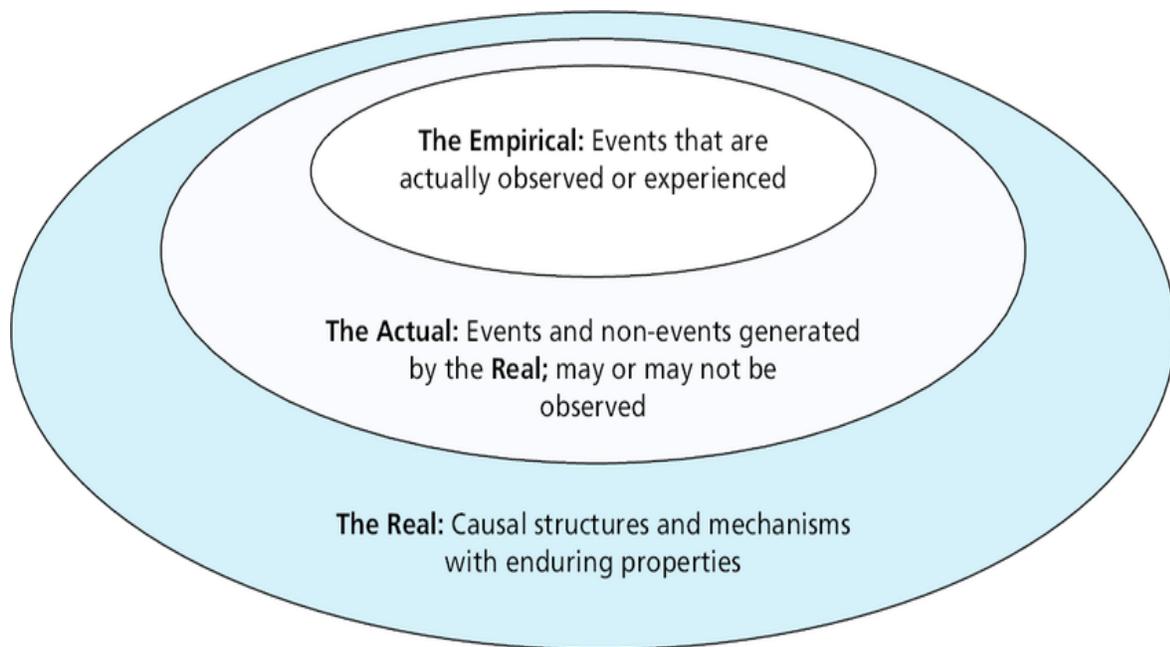


Figure 1: Critical realist stratified ontology

(Saunders, 2009; Price, 2016)

According to Bhaskar (1979), mechanisms are only dimly perceived, if at all, by humans, as reality is too complex, layered and dynamic for us to perceive the causes of things clearly. It is through logic and “transcendental leaps” that we can speculate about the nature of reality outside of our perceptual range. It is therefore through enquiry and careful analysis that we can be enabled to identify the causes of the empirical consequences that we experience. According to Pratt (2014), “the concept of “stratification” (p. 6) (the way in which groups of people are placed in society) in the levels of Bhaskar’s ontology is a common motif in critical realism and can also be applied to the inquiry process in which deeper levels of explanation are reached as the investigation progresses”, therefore enabling conclusions and guiding planning for future situations on a given issue. Stratification refers to how group of people in society are placed and how resources are distributed between them. This is often based on race, class, wealth, income, education and power (Lumenlearning, 2019). One hence needs to examine the stratified layers to come to understand how things are the way they are.

Critical realism proposes that there are things in society that cause other things to happen, and it is important for researchers to identify those things that cause others to happen so that they can make informed choices about their actions or recommendations (Hartwig, 2007). Critical realist researchers attempt to identify the causes of the consequences experienced and to make the most

suitable decisions in relation to them. Hence, critical realists seek to find relationships in societal structures and understand how these relationships affect each other to either enable or constrain change (Archer, 1995).

Critical realism became popular as many authors found it to be a useful under-labourer for their inquiry in different fields and advanced it over time such as the work of Collier (1994), Archer (1995), Sayer (2000). It has also come to be regarded a suitable approach for “exploring how discourses emerge relationally within complex, laminated, open social systems” (Olvitt, 2016: 137). “Critical realism involves a switch from epistemology to ontology, and within ontology a switch from events to mechanisms” (Danermark, Ekstrom, Jacobsen & Karisson, 2002: 5). In other words, this has enabled researchers to look beyond the empirical evidence presented by the situation that they seek to investigate, to identify the deep causal structures and mechanisms and different strata of reality.

It was from Bhaskar’s work that morphogenesis, the theoretical framework I adopted for this study, emerged, as will be discussed in section 2.5.2.

2.5.2 Margaret Archer’s theory of morphogenesis/morphostasis

To guide my enquiry into the implementation of ESD in the Namibian Senior Primary curriculum, I adopted a critical realist view, specifically employing Margaret Archer’s (1995) theory of morphogenesis/morphostasis. Archer advances Roy Bhaskar’s (1979) work and brings a social realist dimension to critical realism. She is considered a social realist because of her interest in the interconnectedness between structure and agency, which is one of the fundamental questions in social science.

The morphogenetic theory came to life when Archer detected a problem between the education systems of France and Britain. She studied in the systems of both countries where she detected a difference with their interactions and patterns of change (Brock, Carrigan & Scrambler, 2017). Through her approach of *analytical dualism* (elaborated below), Archer worked to make it possible for structure and agency to be studied independently, maintaining that they are irreducible to each other although they are interdependent.

Analytical dualism is a temporal separation of structure and culture to analyse how each relates to agency. Archer recognises that in society, structure, culture and agency are inseparable but that for analytical purposes it is necessary to examine each separately so that their interaction can be more fully understood (Archer, 1995).

Her theory sits well within critical realism as it seeks to analyse the source of relational properties, as Elder-Vass puts it, “any account of a specific case of emergence will include a temporal element, an explanation of how the entity concerned has come to exist” (2010). The morphogenetic theory thus seeks to establish how things have emerged over a specified period of time, and to provide an explanatory framework of why things are the way they are at any given time (Archer, 1995).

Archer’s morphogenetic theory deals with this problem of structure and agency. She proposes, firstly, that society is made up of people and so, to understand society, we must study it in terms of its human components (1995). Secondly, Archer proposes that society is not a pre-set formula but that its state is conditioned by human agents over time, as they interact with social and cultural structures and mechanisms (ibid). She distinguishes structure and agency as the ‘parts’ and the ‘people’ respectively (ibid). Archer argues that critical realism “empowers us to analyse the processes by which structure and agency shape and re-shape one another over time and to explain variable outcomes at different times’ (1998, p. 203).

The parts of society are described as the structural and cultural entities. Events taking place in, within and between these entities exert efficacious consequences on the people as agents (Archer, 1995). The ‘parts’ and ‘people’ are said to possess emergent properties, with powers which enable or constrain change in society (Archer, 1995). Summarily, the parts of society have characteristics within them that influence other parts of society and because of these unique characteristics, change is enabled or constrained (Hartwig, 2007). This is described as the stratified nature of social reality, irrespective of its size, site or sentiment. The theory of morphogenesis / morphostasis is both theoretical and analytical. It provides a framework and concepts to guide analysis of a social situation.

It is through social elaboration that these changes are elaborated or reproduced through the interactions between human agents. That is because all structures and agents have emergent properties which are often conditioned by past events and agents (some who are long dead)

because over time, they have shaped society's structures. Society does not stop even when agents die; events keep happening whether we experience them or not.

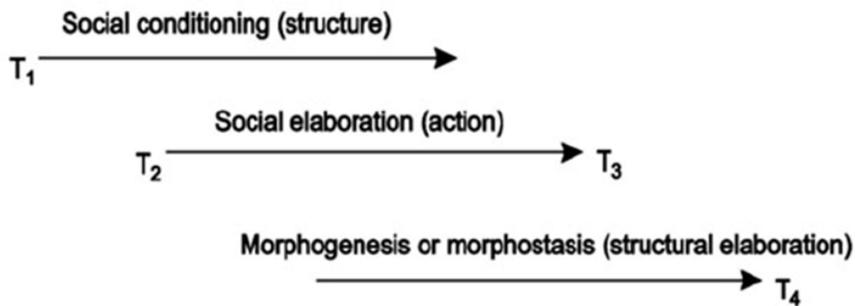


Figure 2: The morphogenetic cycle

(Archer 1995, p. 157)

The morphogenetic cycle illustrated in Figure 2.2 is a tool to explain how things change (morphogenesis) or stay unchanged (morphostasis) in society. Archer's theory places prominence on historicity, hence the 'T' in the figure signifies time, where T_1 signifies structural conditioning, that is, pre-existing structural and cultural conditions. Hence: "the morphogenetic cycle dwells on the ground between the real and actual by analysing the generative mechanisms potentially emanating from structures (and cultures) as emergent properties and their reception by people, with their own emergent powers of self and social reflection" (Archer, 1995, p. 175) to reveal the outcomes emerging from social interactions.

The morphogenetic argument proposes that structure and agency operate over different time periods such that:

- structure logically predates the action(s) that transform it; this is what Archer calls 'Time 1' (T_1)
- structural *elaboration* logically postdates those actions and can be referred to as Time 4 (T_4) (Archer, 1995)

T_2 - T_3 is the period of action between the initial time of enquiry (T_1) and the conclusions of the such enquiry at T_4 . It is this period in which an enquirer applies analytical dualism to try and understand how things have come to be what they are.

I used the morphogenetic cycle (as shown in Figure 2.2) as an analytical tool to study how the interplay of social and cultural structures and mechanisms and human agency, particularly the agency of Senior Primary English Language teachers, has shaped the implementation of ESD at this phase. This structure-culture-agency interaction was analysed using Archer's *analytical dualism* explained above.

Using Archer's theory for this study, I was able to analyse (as reliably as possible within the constraints of the study) what structures and mechanisms in the domain of the Real have acted on the domain of the Actual to enable the research participants and me to experience the Empirical consequences of ESD implementation in the Senior Primary English curriculum in the Khomas Region.

In this study, T₁ is the point at which ESD was introduced in the Namibian curriculum. Before the introduction of ESD, there were pre-existing structures that guided Senior Primary English teachers' practice, as outlined in Chapter 4. These conditioning structures and mechanisms are not only from the Namibian Ministry of Education, but also from external agencies whose interests align with sustainability. Although these agencies did not operate in the formal school curriculum, they have strongly influenced teachers' agency and the learners who went through the system. In some instances, they have worked alongside the curriculum planners.

In Figure 2.2, T₂-T₃ represents a period of social elaboration in which action takes place to change things. At this phase, agents interact with structure and culture to change things. For this study, T₂ – T₃ is the period between 1990 to 2018. I applied analytical dualism to study how structure, culture and agency interacted over time in relation to the implementation of the ESD in the Senior Primary English curriculum. As elaborated in Chapter 5, strategies and mechanisms included events, approaches, techniques and policies used for the purpose of implementing ESD as well as teachers' agentive interactions with them.

The emergent properties present at all levels of policy and practice condition what is observed at T₄, the point at which things have either emerged (morphogenesis) or reproduced themselves (morphostasis). In this study, the situation at T₄ informed the conclusions regarding teachers' ESD implementation practices which are discussed in Chapter 5. Through critical realism's interest in causal mechanisms and powers, insights from the morphogenetic analysis could inform stakeholders as to which types of strategies, mechanisms and interactions are more likely

in future to enable successful implementation of ESD in the Senior Primary English curriculum. This is what Archer (1995) refers to as regrouping, which is when agents experiencing challenges with the given state of affairs organise themselves to challenge the *status quo* to improve the situation or conditions under which they operate.

The morphogenetic approach represents the bedrock understanding of social and systemic properties, of structuring over time, and enables explanations of specific forms of structural elaboration (ibid).

Archer (1995) explains that the three lines on the morphogenetic cycle (as shown in Figure 2.2) are always continuous, and analytical dualism is an artificial separation to break up the flows into intervals critical to understanding the problem in hand and preventing collapse into indeterminacy or duality. Put differently, the entangled complexity of social reality can make it difficult to understand why things are as they are, and how they might be transformed, but by analytically separating structure, culture and agency, a researcher can get a better understanding of each. Given any particular problem, understood temporally, the three lines all extend equally backwards and forwards, connecting with other posterior or anterior morphogenetic cycles. This approach represents the bedrock understanding of social and systemic properties, of structuring over time, and enables explanations of specific forms of structural elaboration (ibid). The concepts structures, mechanisms properties, social and cultural are explained in sections 2.5.2.1 to 2.5.2.5 below.

2.5.2.1 Structures

According to Archer (1995), structures are “actual forms of social organisation, that is real entities with their own powers, tendencies and potentials” (p, 106). Archer further describes structures as irreducible, autonomous (independent), and that they are relatively enduring (they remain in place even when agents in any given time-frame modify their compositions) (Archer, 1995). An example relevant to this study is the Namibian Ministry of Education, Arts and Culture which has structures such as NIED, the curriculum and various directorates in relation to it.

2.5.2.2 Mechanisms

The Cambridge Dictionary defines mechanisms as ways of doing things which are planned or part of a system (2018), and they can cause something in the world to happen. In critical realism, a mechanism is simply defined as a *causal* structure that explains a phenomenon (Bygstad & Munkvold, 2011 citing Bhaskar, 1998b). Mechanisms are relatively enduring, and they exist whether they are exercised or not (Archer, 1995). Their actualization and effects are, in most cases, context-dependent and are evaluated as such (Collier 1994). They are recognisable causal patterns because, when effected, they bring about change in ways of acting, for example the inclusion of ESD into the school curriculum is a mechanism of the Namibian Ministry of Education, Arts and Culture that brings about a change in how teachers teach.

2.5.2.3 Properties

Properties are “characteristics or behaviours or powers that apply only to the whole rather than its parts at any particular level” (Hartwig, 2007, p. 321). They are qualities and compositions inherent and unique to specific things such as structures and people. This can refer to, for instance, powers vested with certain entities such as NIED, teachers’ interests or government officials’ orientations to sustainable development. These compositions enable or constrain everyday life situations and shape the way structural initiations are implemented.

2.5.2.4 Social entity

On their website, Ventureline (2019) defines social entity as “the separate existence of an organisation that is perceived to exist, by its members and the public at large, as a given, i.e. something that exists before and outside of them.” It pertains to the interaction among individuals and groups. It has to do with how members of society live together in an organised way, interacting through structural and cultural entities to confront and challenge the situations they are presented with. The way Senior Primary English teachers in the Khomas Region interact is an example of a social entity.

2.5.2.5 Cultural entity

This is a body made up of members of shared beliefs, values and practices. The entity has relative autonomy irreducible to any other structures as the ideas and structures are connected but not entirely bound (Hartwig, 2007), which enables varying approaches to a given practice. Senior Primary English teachers in the Khomas Region is an example of a cultural entity as the entity is

guided by roughly the same beliefs, values and practices, conditioned by certain structures and mechanisms.

2.5.3 Agency

Emirbayer and Mische (1998, p. 962) describe human agency as:

A temporally embedded process of social engagement informed by the past (in its “iterational” or habitual aspect) but also oriented toward the future (as a “projective” capacity to imagine alternative possibilities) and toward the present (as a “practical-evaluative” capacity to contextualize past habits and future projects within the contingencies of the moment).

The iterational, projective and practical-evaluative nature of human agents empowers them to think and act autonomously. Agency is the capacity of individuals to act on their own free will to express their individual power. Besides the individual’s agency, groups of humans can also exercise their agency. Group agency refers to the free will of a group of people with similar interests, values, roles and kinship such as that of teachers in the Senior Primary English Language in the Khomas Region of Namibia. These people can be described as Corporate and Primary Agents as elaborated in section 2.5.3.1.

Archer (1995) pointed out that structure and agency are inextricably intertwined and hence influence each other’s existence. Human agency is possible because people have their own thoughts, feelings, values and varying abilities, which influence their decisions (ibid). Although policies such as the curriculum that calls for ESD implementation are structurally initiated, they are not structurally *determined* because humans have the ability to exercise their own will which dictates how certain policies are implemented, and to what level of success (ibid). People have different vested interests which make them act for or against something; it is this action or inaction that leads to morphogenesis or morphostasis, as will be elaborated on in section 2.5.4 below.

2.5.3.1 Corporate and primary agents

Corporate Agents work at the structural level and enforce and monitor what the structural entity initiates. Archer (1995, p. 260) explains that Corporate Agents, “... act together and interact with

other Agents and they do so strategically, that is in a manner which cannot be construed as the summation of individuals' self-interest". In addition, Corporate Agents are "active rather than passive", that is they are social subjects with reasons for attempting to bring about certain outcomes, rather than objects to whom things happen (Archer, 1995). For this study, Ministerial officials and advisory teachers working under the Programmes and Quality Assurance are examples of corporate agents.

Archer (1995) distinguishes Primary Agents from Corporate Agents by noting their limited influence over any structural or cultural modelling. She explains: "At that time, they [Primary Agents] neither express interests nor organize for their strategic pursuit, either in society or a given institutional sector" (p. 259). Archer does note, however, that the lack of co-ordinated or systemic influence does not mean that Primary Agents are unable to have an effect on the world – all people do – it is just not via having direct influence over social structures and mechanisms. Primary Agents "still react and respond to their context as part and parcel of living within it" and collectively, they "... can generate powerful, though unintended aggregate effects which is what makes everyone an agent" (Archer, 1995, p. 259). For this study, Senior Primary English Language teachers are the primary agents, the actual implementers of ESD in their practice.

The study focused on the Primary Agents but as the nature of social reality, Primary and Corporate Agents are structurally intertwined. Therefore, structural emergent properties (SEPs) and cultural emergent properties (CEPs) "are mediated by people to shape the situations in which they find themselves" (Archer 1995, p, 196), and the practice of Primary Agents is highly influenced by the practice or (in)practice of Corporate Agency. For this study, agents and agency will refer specifically to teachers and their agency. Where Corporate Agents are concerned, it will specifically be mentioned.

Through tracing the emergence of ESD in Senior Primary English Language teaching in the Khomas Region, part of this study's interest is in understanding the Primary Agency of Senior Primary English teachers in relation to ESD, and the Corporate Agency of the Namibian Ministry of Education, Arts and Culture, and other institutional role-players. One challenge for the Namibian education system could be to shift (Senior Primary English) teachers from being Primary Agents in relation to ESD implementation, namely, "inarticulate in their demands and unorganized for their pursuit [of ESD]" (Archer, 1995, p. 185) towards being Corporate Agents

whose agency has “emergent powers of promotive organization and articulation of interests (such that they become party to negotiated societal transformations)” (ibid.).

2.5.4 Emergent properties in societal structures

As stated earlier, Archer views structure, culture and agency to be analytically distinct strata of social reality in which structures are viewed as “...relatively enduring, anterior social objects that possess causal powers and are neither observable nor reducible to social interaction” (Lockett, 2012, p. 340). According to Archer (1995), the social world is a stratified model involving: (a) different structural emergent properties (SEPs) such as roles, institutional structures, social systems, and positions; (b) different cultural emergent properties (CEPs) such as ideas, beliefs, values and ideologies; and (c) different people’s emergent properties (PEPs) which manifest the causal power of individuals’ consciousness, preferences and commitments, and their effect on other agents.

The structural factors (SEPs and CEPs) act to condition PEPs by dividing people into different vested interest groups, which leads agents to action or inaction. Vested interests are those things that people value to make them act for or against something and this action (the social interaction of T2 – T3 of Figure 2.2) is what leads to morphogenesis or morphostasis. Archer’s later works (2003, 2007) address the question of why different agents in a given situation choose to act differently, due to individual differences in reflexivity.

Critical realism has been used successfully to under-labour studies of structure and agency in the context of education in Southern Africa. These studies have concluded that there is a high level of relationality between what structures establish, and what agency employs because of human intentionality which then shapes what society becomes (Olvitt, 2012; Boughey, 2015; Mandikonza & Lotz-Sisitka, 2016). This means that what society becomes is influenced by how agents interact with the structures in place, over a specified period. It is not always an intended consequence.

2.5 Conclusion

This chapter has provided a contextual and theoretical framework for the study. It described the state of ESD implementation in global, regional and local contexts, focusing specifically on ESD

implementation in the Senior Primary English curriculum. The discussion identified many of the causal structures, mechanisms, properties and powers associated with ESD implementation to be presented in detail in Chapter 4. The chapter has also presented Margaret Archer's theory of morphogenesis / morphostasis, which lays the foundation for analysis of the case study data, and the in-depth explanations and research findings presented in Chapter 5. The next chapter is a discussion on the methodology that underpinned this study.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter gives an overview of the study's design, describing with justification the methodological framework that guided the research process. It explains why certain decisions were taken to carry out the case study in the given context. It also explains the choice of the study's participants and the data collection methods engaged, as well as how the data was managed, then analysed. It further explains how validity and ethics issues were resolved. The chapter ends with a discussion on limitations of the study.

3.2 A descriptive, qualitative case study approach

The aim of my research was to provide an explanatory critique of the emergence of the ESD in the Khomas Region. The research took a qualitative case study approach, which was underlaboured by critical realism, as discussed in chapter 2. Taking the case study approach helped me to understand and then to explain the causes of what has happened or continues to happen regarding the implementation of ESD in the context in which it was studied.

I describe the research as a case study because it was bounded; "a single entity, a unit around which there are boundaries" (Merriam, 2001, p. 27). A single entity refers to the nature of a case being focused on "one thing" (ibid.). In my case, the focus was on the emergence of ESD in the Senior Primary English curriculum in the Khomas Region. The focus was on one subject (English), one learning phase (Senior Primary) and one education region (Khomas region, Namibia).

Case studies are generally descriptive, and they can be used to generate claims for further verification (Bertram & Christiansen, 2015). Highlighting the purpose of descriptive case studies in education, Merriam (2001) explains, "case studies represent a comprehensive description of the phenomena under investigation. In later work, Cohen, Manion and Morrison (2013) pointed out that case studies can establish cause and effect (how and why), which then allows one to describe the phenomena under investigation. I was convinced that taking a case study approach had the best potential to answer the study's questions and provide me with an in-depth

understanding of the situation in its context. It allowed me to focus on a small sample of a larger population and to produce a *rich* and *thick* description of the phenomenon (Merriam, 2001), that is, to explain how and why ESD in this context has emerged in the way that it has. According to Cohen et al. (2013), “contexts are unique and dynamic; hence case studies investigate and report the real-life, complex dynamic and unfolding of events, human relationships and other factors in a unique instance” (p. 289).

Studying this case through a critical realist lens enabled me to dig deeper into the domain of the ‘real’ and to find how causal mechanisms and powers are influenced by the interaction of agents, and how they enable the implementation of the ESD, or how they constrain it. Critical realism enabled me to explore the implementation of the ESD in an open system, without pre-determined activation of mechanisms and their effects but allowing the results to emerge from contingent conditions (Sayer, 1997).

As noted in Chapter 1 (section 1.7), the study’s participants are primarily Senior Primary English teachers and one key informant from the Khomas Region. The participants were purposively sampled (Baxter & Jack, 2008) based on proximity and the interest I have in establishing the situation of the context where I practice. Two of the participants are school principals of whom one still teaches the subject, and the other is a qualified English Language teacher who is not currently practicing as a teacher.

3.3 Data generation

As a critical realist researcher, I sought to understand what structures, mechanisms and properties have contributed to the emergence of ESD. I was looking for the interconnectedness within the ‘parts’ playing out in the emergence of ESD and how their interaction has shaped how ESD implementation is played out. Doing case study research enabled me to use multiple data generation methods which are described in the sections that follow.

3.3.1 Document analysis

“Document analysis is a systematic procedure for reviewing or evaluating documents” (Bowen, 2009, p. 27), when a researcher uses existing documents to collect data (Bertram & Christiansen, 2015). The process involves a researcher selecting and reviewing study-relevant documents with a purpose of studying the context in which the study is conducted. “Documents are in, fact, a

ready-made source of data easily accessible to the imaginative and resourceful investigator” (Merriam, 2001, p. 112) and they should be taken as “receptacles and agents” in their own right (Prior, 2003). They are considered in this way for their contents and for the role they play in human activity. For this study, selected documents were analysed to provide data about the context in which the participants practice (Bowen, 2009). This then helped to develop new questions that needed to be probed through subsequent questionnaires and interviews. Analysing documents also offered me an opportunity to study their historicity as they change and develop over time. Document analysis formed the biggest part of my data set which was then enhanced by questionnaires and interviews (see Appendix A: document analysis tool phase 1). Appendix A is a sample of how the documents were analysed and it is only a representative of phase 1 analysis. The categories were coded as explained in section 3.5.1 below. The documents were analysed at all three analytical phases as with all other data sources elaborated in section 3.5.

Merriam (2001) makes a distinction between types of documents; public documents and personal documents. For this study, *public documents* refers to documents in the public domain such as government educational policies and organisational reports. *Personal documents* refers to documents that are personalized for teachers’ individual use. The following public documents were consulted at the initial phase:

- The National Curriculum for Basic Education,
- The Senior Primary Phase English Second Language Syllabus Grades 4-7,
- The National Policy Guide for English Grades 4-12,
- Namibia’s EE/ESD Draft Policy,
- Eco-Schools Handbook,
- Environmental Education Association of Southern Africa (EEASA) 2018 report,
- The Future of ESD 2018 report.
- Enviroteach project papers
- Towards Education for All (A development brief for Education, Culture and Training (1993)
- Support Environmental Education Network project papers

Personal documents were purposively sampled after administering the questionnaire (see 3.3.2 below) in order to validate the data generated from the public documents. These were teachers' working documents which included:

- Schools' English Language internal policies.
- English Teachers' schemes of work,
- Teachers' Lesson preparation sheets,

I requested the teachers who participated in the interview for their working documents as listed above. I requested each teacher to provide me with five random prepared/presented lessons. The documents were then indexed as a set; hence TD1-TD9 (Table 3.1).

The documents, which were analysed at both levels of policy and practice, are listed in Table 3.1 below.

3.3.2 Questionnaires

Questionnaires collect a large amount of data without the researcher necessarily needing to be around (Cohen et al., 2011). For this research, a questionnaire was distributed to the participants who were the Senior Primary English teachers in the Khomas Region. The questionnaire was aimed at covering at least 55 Senior Primary English teachers from various clusters within the region. My target was to get feedback from at least seven clusters out of the nine primary school clusters in the region. The purpose of the questionnaire was to get a general picture of ESD implementation at this learning phase and subject. The questionnaires were administered through the schools' Language Heads of Departments (HODs) and some principals. The HODs and principals helped with administering the questionnaires and ensuring that they were returned to the researcher. Administering the questionnaires this way ensured a high return rate as they were returned as a pack, minimizing the risk of losing them in the return process, giving me a total of forty-three (43) completed questionnaires (see table 3.1). Respondents were required to share their experiences of incorporating ESD in their English teaching practice and details on the kinds of structures and mechanisms they experienced or continued to experience in strengthening their practice (See Appendix B: Questionnaire).

3.3.3 Semi-structured interviews

Interviews are a good way to get first-hand information from a respondent. The primary purpose of conducting an interview is to gain a special kind of information (Merriam, 2001), and to understand the experience of others and the meanings they make out of their experiences (Seidman, 1998). The interview process allowed me to find out from people the things I could not directly observe; their feelings, thoughts and intentions as well as reflections on past events. Interviews enabled me to enter the research participants' perspectives (Patton, 1990). For this research, semi-structured, 'person-to-person' (Merriam, 2001) interviews were conducted with two varying group representatives namely someone at policy-enforcement level (subject advisor) and policy practitioners (teachers).

I chose semi-structured interviews for its advantage noted by Merriam (2001) that, "it allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (p. 74). Carrying out semi-structured interviews enabled me to use a variety of questioning techniques, guided by a set of pre-set questions to probe further on the respondent's responses for specific information. I audio-recorded all interviews, which I then transcribed to allow me to do the analysis. Recording the audios also served as a self-reflective tool on my questioning technique for improving on it for future needs.

The interviewed groups are elaborated below, with motivation as to why it was necessary to interview them.

a) Teachers

Teachers who had indicated on the questionnaire that they were willing to be contacted for further enquiries on the topic were contacted for interviews. Fourteen teachers were invited to take part in the interviews but only twelve interviews were finally conducted (see table 3.1). The two teachers withdrew from the interviews for varying reasons. The interviewed teachers were from different clusters within the Khomas Region. This enabled me to gain a range of views based on teachers' perspectives and experiences on ESD implementation in their practice (see Appendix C: Interview schedule - Teachers).

b) Key informant interviews

Interviewing key informants has great potential for gaining more understanding on the policies and their intended implementation because it gives the researcher first-hand information from key figures in the field. A potential limitation of such interviews with key informants is that they might be reluctant to divulge sensitive information for fear of being disciplined or sabotaged by their peers or superiors (Cohen et al., 2011). I minimised this risk by assuring the respondents that they would be allowed to verify the information they shared with me to ensure that what I have captured is what they really meant.

I conducted one key informant interview with the person standing in for the Khomas region's English Subject Advisor (see table 3.1). This was to gain insights on ESD implementation from the Namibian Ministry of Education, Arts and Culture's point of view (see Appendix D: Interview schedule- Key informant). I had intended to interview the National English Subject Advisor in the Namibian Ministry of Education, Arts and Culture and the textbook officer at the Namibian Institute for Educational Development (NIED), but this was not possible. The position of National Subject Advisor was vacant at the time that I was collecting the data, and the textbook officer indicated to have been extremely busy rolling out training for the new curriculum at the time.

Table 1: Data generation methods, rationale and indexing

Document analysis		
Data Index	Phase 1: Documents analysed at POLICY level	Focus/intended contribution
D1	The National Curriculum for Basic Education	How ESD is incorporated in the curriculum
D2	Senior Primary Phase English First & Second Language Syllabi Grades 4-7	How ESD is incorporated in the syllabus
D3	The National Subject Policy Guide for English Grades 4-12	How the document guides teachers in implementing ESD in their practice.
D4	Namibia's EE/ESD draft policy	How the policy addresses ESD implementation at this learning phase. This draft policy is currently awaiting cabinet's approval.
D5	Namibia Eco-Schools handbook	To ascertain the extent to which teachers are capacitated through non-formal education
D6	Namibia's EEASA 2018 report	To ascertain the extent to which teachers are capacitated through non-formal education
D7	Future of ESD 2018 report	To ascertain the extent to which teachers

		are capacitated through non-formal education
D8	Enviroteach project papers 1992-1999	To ascertain the contribution the project made to ESD presence in the curriculum.
D9	Towards Education for All (A development brief for Education, Culture and Training) (1993)	To track the structures and mechanisms pertaining to the development of Namibia's Education System under the Ministry of Education, Arts and Culture.
D10	Support Environmental Education Network project papers	To establish the contribution of the project to ESD presence in the curriculum
Phase 2: Documents analysed at PRACTICE level		Focus/intended contribution
TD1-D10	Selected Schools' English Language Internal Subject Policy Grades 4-7	How ESD is incorporated in the schools' internal subject documents.
	Selected Senior Primary English Teachers' schemes of work	How teachers implement ESD in their practice
	5 lesson preparation sheets (presented)	How teachers implement ESD in their practice
Questionnaires		
Data Index	Type	Focus/intended contribution
T1-T 43	Open-ended questionnaires	To get a general picture of ESD implementation at this learning phase and subject
Interviews		
Data Index	Type	Focus/intended contribution
TI 1-TI 12	Semi-structured interviews (teachers)	To gain a range of views based on teachers' perspectives and experiences
KI 1	Semi-structured interview (Key informant)	To gain insights on ESD implementation from the Namibian Ministry of Education, Arts and Culture's point of view.

3.4 Data management

Data management refers to how the collected data was organized for easy identification for the analysing process (Merriam, 2001). This involved indexing all data as it was collected. This process was necessary so that all collected data could be accounted for, and to prevent data getting lost, which could invalidate the case (see Table 1 above). The audio-recordings were named and saved on a computer that was only accessible to me. The questionnaires were recorded as a database with participants' pseudonyms (T 1 – T 43) and saved to the case folder

and the original documents scanned and saved to the case folder as backup. All the data sets were then saved according to the analytical phase.

3.5 Data analysis

Data analysis is a process of working with the generated data to find ways of reducing it and manipulating it to find answers to the research questions (Baxter & Jack, 2008). The process which starts concurrently with the data generation involves multiple, cyclical steps and strategies which guide the researcher to generate conclusions on the studied case (Merriam, 2001). It involves “organizing, accounting for and explaining the data; in short, making sense of data in terms of the participants’ definitions of the situation, noting patterns, themes, categories and regularities” (Cohen et al., 2013, p. 537).

Given the nature of the research question, data generation methods and resultant data sets, I took a qualitative approach to data analysis. This included displaying the data, finding patterns and identifying categories and relationships, as elaborated on in the next section.

Throughout the analytical process, I employed abductive and retroductive processes (Danermark et al., 2002). Abduction enabled me to find the best possible explanations for what emerged from the data, whereas retroduction enabled me to dig deeper beyond the empirical to uncover causal mechanisms that produce how the emergence of ESD is experienced. This kind of causal explanation is the concern of critical realism. The process of analysis was done in three phases which will be explained below.

3.5.1 Phase 1 analysis

This phase focused on the first sub-question of the study which was to establish what social and cultural structures, mechanisms and properties had conditioned the development of ESD in Namibia from 1990 to 2018. The documents, questionnaires and interviews were collected, thematically colour coded, and then allocated to the suitable categories. This phase of analysis was divided into two sub-categories. The sub-categories represented the two levels of structures (social and cultural) on which the goal focused. During this phase of analysis, I was guided by the theory of morphogenesis (as introduced in Chapter 2, section 2.5.2). I looked for evidence of social or cultural *structures*, *mechanisms* or *properties* at the policy level (social structure) and

social or cultural *structures, mechanisms* or *properties* at the practice level (teachers' agency). The theory guided me to identify the categories based on the two sub-categories. An example of how the categories were coded can be found in the analytical memo Appendix F. Table 2 below is a list of categories used for this phase.

Table 2: Categories and colour codes used during Phase 1 of data analysis

CATEGORIES AND SUB-CATEGORIES	CODE
Category 1: Structural level	
Sub-category 1.1	
Social structures	Red
Social mechanisms	Blue
Social properties	Yellow
Category 1: Agentive level	
Sub-category 1.2	
Cultural structures	Purple
Cultural mechanisms	Green
Cultural properties	Cyan

3.5.2 Phase 2 analysis

The second phase of analysis focused on the study's second sub-question, which was to establish the social and cultural structures, mechanisms and properties that condition how current Senior Primary English teachers came to know and integrate ESD (or not) in their practice. This phase also looked at data from all sources (document analysis, questionnaires and interviews) to develop an analytical memo focused on the second question. As with the first phase, data was collectively gathered, colour coded, and then allocated to the suitable categories. This phase of analysis was also guided by the theory and it also had two sub-categories. The first sub-category looked at structures and mechanisms that conditioned teachers' ESD knowledge, whereas the second sub-category focused on identifying data that revealed personal, structural and cultural emergent properties (PEPs, SEPs, CEPs) that had conditioned (or not) how teachers came to know about ESD in their practice. An example on how the categories were coded for this phase

can be found in Appendix G. Table 3 below presents the colour coding used for categories at this phase.

Table 3:Categories and colour codes used during Phase 2 of data analysis

CATEGORIES AND SUB-CATEGORIES	CODE
SUB-CATEGORY 2.1	
Structures	Red
Mechanisms	Yellow
SUB-CATEGORY 2.2	
Personal Emergent Properties	Green
Structural Emergent Properties	Purple
Cultural Emergent Properties	Cyan

3.5.3 Phase 3 analysis

The final phase of analysis focused on the last sub-question of the study, which was to establish the current status of the ESD implementation in the context of the study. Like the preceding phases, all data sources were also used for this phase and an analytical memo was developed (see Appendix H). The data was then allocated to the suitable categories. Consisting only of one category, the analysis focused on identifying themes that indicated how ESD was being implemented or not. The categories were coded as enablers and constraints and they were colour coded across the data sources. The morphogenetic theory informed the analytic process to help me to find evidence of ESD emergence over time (morphogenesis) or not (morphostasis), and to identify enablers and constraints. This analytical process also enabled me to formulate the recommendations presented in Chapter 6. An example on how the categories were coded can be found in Appendix I. Table 4 below shows the categories used for this phase.

Table 4: Categories and colour codes used during Phase 3 analysis

CATEGORY	CODE
Enablers	
Constraints	

3.6. Validity and Trustworthiness

It is crucial that the results of educational research can be trusted. The truth value is important for all those who might have interest in the study, as in Merriam’s (2001, p. 199) words, “these studies must be rigorously conducted; they need to present insights and conclusions that ring true to the readers, educators, and other researchers”. For the research to be rigorous, valid and trustworthy, I applied Lincoln and Guba’s (1985) four criteria in qualitative research: *credibility*, *dependability*, *transferability* and *confirmability* as elaborated below:

- **Credibility:** This refers to the truth value of the research; is it trustworthy and can the findings be believed? I made efforts to ensure that the study’s findings reflect the lived reality of peoples’ experiences of ESD implementation. These include the following:

- Multiple data generation methods ensured the triangulation of the data collected and enabled me to identify the various layers of reality: the empirical, the real and the actual.
- The semi-structured, key informant interviews were audio-recorded and transcribed *verbatim* so that the original discussion could be archived accurately.
- The entire case record is available for scrutiny for five years from completion of the study, should there be any concern over the confirmability of the data.
- Extracts from the interview transcriptions, samples of the questionnaires, and evidence of the analytical process are appended to the final research report.

- **Dependability:** This refers to the possibility that if the research was to be repeated using the same methods and participants, it would yield similar results. On this, Lincoln and Guba (1985), Seale (2005) suggest that the results obtained from the data should be consistent. The methods and procedures for this study as recorded above have been thoroughly thought through to allow for this. This has been accomplished using multiple data generation methods, choosing

multiple participants from context relevant stakeholders, and robust, theoretically informed analysis.

- **Transferability:** This refers to the possibility that the findings can be of relevance to other contexts and still fit the new contexts. In this case study, these other contexts could be other educational regions in Namibia or other language subjects of the curriculum. Although some researchers argue that one cannot generalize from a case study due to the uniqueness of particular contexts (Erlandson, Harris, Skipper, & Allen, 1993), others such as Stake (1995), Denscombe (1998) and Maxwell (2012) agree that a case is an example within a broader group and thus its results could be transferable. Gomm, Hamsley and Foster (2000) advise that transferability should be done with caution, by making a comparison between the sending context and receiving context, that is, one should only try to transfer this study's findings if the context to which they wish to transfer the results can compare with the context in which the study was taken.

Maxwell (2012) describes two aspects of generalisability in qualitative case studies: internal generalization and external generalization. The latter refers to generalizing to other settings, groups and or institutions, and that is what I anticipate being possible with this study's findings. The case, as a small case study of ESD in Senior Primary English Language teaching in the Khomas region, could be generalizable to other education regions in Namibia, as well as to other language subjects at the same phase, or possibly other phases of the Namibian curriculum.

- **Confirmability:** This recognises that findings emerge from and can thus be confirmed by the data. The findings for this study were derived from the data generated and I ensured that the findings are traceable to the original raw data. This was made possible, for example, by labelling and managing the raw data systematically, using well-structured analytical tools that left an 'audit trail' through the whole process of analysis, and maintaining a research journal that documented the stages from data generation to analysis and generating findings. I enhanced the study's confirmability using multiple data-collection methods (in this case, questionnaires, document analysis and semi-structured interviews), and member checking whereby I shared the data collected with the interview participants for them to validate if what I captured is indeed what they meant.

3.7 Research ethics

“Ethics is the science of morality: those who engage in it determine values for the regulation of human behavior” (Homan, 1991, p. 1). This assertion accords a moral obligation on researchers to evade activities which may risk others’ autonomy (Kelly & Ali, 2005). Ethics should guide and accompany a researcher throughout the research process. This should be done to accord participants dignity and to protect their identities and to guard them from being exposed which may pose a potential vulnerability to victimisation. Generally, research should have a positive impact on the lives of those it affects. To this end, I considered the ethical principles of autonomy, non-maleficence and beneficence as proposed by Cohen et al. (2011). This led me to consider issues of respect and dignity, transparency and honesty, accountability and responsibility as well as integrity, academic professionalism and remaining reflexive about my position as a researcher. These ethical considerations are elaborated below:

3.7.1 Respect and dignity

Firstly, I sought permission from the Namibian Ministry of Education, Arts and Culture through the Permanent Secretary to gain access to key informants (see Appendices J, and K for the response). Further permission was sought through the regional director of the Khomas Region to carry out the research in the region (see Appendices L, & M for the response). The permission sought included getting access to the research participants. I also sent letters to Cluster Centre Principals (see Appendix N) as I had proposed to collect the data from cluster meetings. This was, however, not possible because most clusters have proven to be dysfunctional as further discussed in chapter 4. I attached letters to participants to the Cluster Centre Principals’ letter (see Appendix O). The identities of participants were kept anonymous and the information they shared was treated with confidentiality to protect them from being exposed or victimised for their opinions on the topic which could compromise their autonomy. For this purpose, I gave the participants pseudonyms in the written report to avoid their experiences and viewpoints being traced back to them (Bertram & Christiansen, 2015). I did this to protect the identities of participants and prevent them from being victimised by peers or superiors within the education system.

3.7.2 Transparency and honesty

The study only sought that which it meant to seek. There were no hidden agendas attached to the study besides finding answers for questions stipulated in Chapter 1.6. Participation in the study was voluntary, participants were informed of this by signing a prepared consent form (Appendix P), and they were assured of their right to withdraw at any stage should they choose to do so. The findings presented for the study were solely derived from the data collected.

3.7.3 Accountability and responsibility

The research was conducted in accordance with Rhodes University's Research Ethics Guidelines and codes of ethics relevant to the research context. The research was done with the purpose of making a positive contribution to the implementation of ESD in Namibia, and informing stakeholders of the research findings and recommendations, with no hidden agendas. My supervisor and I were the only people with access to the data and it has been kept safely from unauthorized access (Vanclay, Bienes & Taylor, 2013). This was done by storing the data in a safe place where only I could access it and providing it to my supervisor at the appropriate time. I also backed up the data by scanning it and storing it electronically on a device that only I could access. This was done to back up the data in case of any unfortunate event such as fire or burglary.

3.7.4 Integrity, academic professionalism and researcher positionality

I have included as Appendix Q, the Ethics Clearance granted by Rhodes University (2017) to carry out this research. Throughout the study, I maintained a high level of integrity and academic professionalism. I remained honest to the purpose of the research and to its participants. Although participants were informed of the importance of the research, they were continuously reminded of their right to withdraw. I kept my focus on the research purpose and averted from being derailed from the purpose by reminding participants on what the research was about when they raised issues of concern which were outside the research purpose. The project archive is available for verification if necessary. I kept a reflective journal and continuously reflected on my position to help set boundaries for myself. I have undertaken to share the research findings and recommendations with the research participants upon the successful completion of this study.

My positionality on the research was that I am a teacher in the same context (see section 1.4), but I maintained academic professionalism so that my knowledge of the context did not interfere with participants' views and opinions. I did not pursue issues about the context that I deemed to be outside of the research goals. Being a teacher in the same context meant that I shared a similar experience with the participants and could identify with many of the situations they described. Additionally, I was conscious that I was conducting the research within my own broad professional context (English teaching in the Khomas Region), and that I am likely to encounter the research participants in future years due to our shared networks. This increased my sense of accountability and professionalism.

3.8 Conclusion

This chapter gave an overview of the study's design, describing with justification the methodological framework that guided the research process. It explained why certain decisions were taken to carry out the case study in the given context. It also explained the choice of the study's participants and the data collection methods engaged, as well as how the data was managed, then analysed. It further explained how validity and ethics issues were responded to in the study, and offered some consideration of my positionality and its influence on my approach to accountability and benefit. The next chapter presents the data collected for the study.

CHAPTER 4

DATA PRESENTATION

4.1 Introduction

This chapter presents the data collected for this study. The data was generated firstly by analysing documents. This was then complemented by questionnaires and interviews with teachers and a key informant to gain in-depth understanding, and to validate the information gained from the analysed documents.

The chapter is divided into three sections. It begins in section 4.2 with a historic narration of how Namibia's curriculum developed, giving a broad overview broken down into social and cultural aspects (explained in Chapter 2) that have conditioned the curriculum evolution from 1990-2018. These social and cultural aspects are discussed according to the periods that break up the phases of the curriculum's development:

- 1990 - 1993 (section 4.2.1)
- 1993 - 1996 (section 4.2.2)
- 1997 - 2009 (section 4.2.3)
- 2010 - 2014 (section 4.2.4)
- 2015 - 2018 (section 4.2.5)

Under each phase, social and cultural factors that have played a role are discussed as sub-sections. This data was mostly derived from documents analysed.

The second section presents factors conditioning teachers' agency for the implementation of ESD in their practice. It focuses on social, cultural and personal aspects pertaining to their agency for implementing ESD in their practice. Section 4.3 presents strategies that teachers employ for incorporating ESD in their practice, and it also presents the challenges that teachers encounter in their attempts to do so.

Although there may be some necessary mention of secondary education in parts of this chapter, the focus is on ESD implementation in the English subject at the Senior Primary phase.

4.2 Social and cultural factors conditioning esd development 1990-2018

This section presents data on factors conditioning ESD development from 1990-2018. Much of the data was derived from documents analysed and some of it from questionnaires and interviews as indicated in Chapter Three. The sections are organised according to curriculum evolution phases and, under every phase, the events influencing the social and cultural entities have been described.

4.2.1 Social and cultural factors conditioning ESD development 1990-1993

4.2.1.1 Education for All policy

Namibia's independence coincided with the 1990 World Conference on Education for All. Namibia then complied with the *Education for All* policy which was a UNESCO programme emanating from the said conference. The country developed its own Education for All development brief which helped guide the curriculum reform. *Education for All* was introduced to do away with inequities of the previous education system and to educate all groups of people. It focused on four major educational goals: access, equity, quality and democracy [D9]. It was envisaged that the policy would make education accessible to all people despite social or other differences [D9]. For the above goals to be realised for a new government, much had to be done, such as training teachers for the new curriculum and providing materials and infrastructure.

The new curriculum had to embrace English as the language of teaching and learning; all subjects except the national languages were to be taught in English from Grade 4-12 (D 9). The method of teaching also had to change from rote learning to learner-centred education (LCE) as discussed in Chapter 2 [also D1; D9]. LCE puts the learner at the centre of the learning interaction, recognising learners as partners in their own education. This raised a great need to train teachers for the massive transition. The teachers in pre-service institutions were being trained to teach for the new curriculum, while those already in service were being trained to improve their skills. D9 narrated that most of the in-service teachers, especially in the former Bantu schools, were unqualified or underqualified for the work that they were doing.

For a changing curriculum, it meant also that the culture of teachers practice had to change. As the goals for access, equity, quality and democracy demanded, it was deemed necessary that those who would help with the realisation of the education goals were capacitated on how they would play a role in having the set goals realised [D9]. As indicated above, teachers needed to be

trained to develop a new culture of doing things and the training would enable them to embrace the demands of *Education for All*. The demands that came *Education for All* included English becoming the new language of teaching and learning, the demands on the teachers to practice learner-centred education and gaining new skills through the in-service trainings which were offered. It meant that teachers and other agents had to adapt to a new way of doing things which established a new culture; a new teaching approach under a new language policy which made English as the new medium of instructions [D9]. For the teachers who were unqualified or underqualified, they needed to improve their knowledge and skills to meet the demands of the curriculum.

4.2.1.2 The Basic Education Teachers' Diploma

In developing the Education for All Brief [D9]), the then Namibian Ministry of Education and Culture recognised the key role played by teachers in modelling learning environments:

Perhaps the most important challenge in improving the quality of our education system is to ensure that our teachers are well prepared for the major responsibilities they carry. More than anything else, it is teachers who structure learning environments.

It is essential therefore, that we help our teachers develop the expertise and skills that will enable them to stimulate learning. Their professional education must begin before they enter the classroom and continue during the course of their professional careers. (MEC, 1993, p. 37).

Towards achieving this goal, the Basic Education Teachers' Diploma (BETD) was introduced at former colleges of education in 1993. BETD was a three-year program which was designed to change teachers' training curriculum to respond to the changing school curricular. The then existing teacher training institutions in Windhoek (capital city) and Ongwediva (then a settlement in northern Namibia, now a town) were renamed as teacher training colleges and two new institutions were soon thereafter established in Rundu (further northern Namibia, sharing borders with Angola) and Katima Mulilo (north-easter Namibia, sharing boarders with Zambia). As the qualification name suggests, the programme aimed to train teachers in basic education to respond to the reformed curriculum. Some teachers were trained to teach at the lower primary phase (Grades 1-4 as class teaching) where Environmental Education was a subject. Others were

trained to teach Grades 5-7 and 8-10 in various major and minor subjects. It was at these former colleges where the Enviroteach project which I will describe in the next section was infused.

The culture of teachers was being modelled to embrace the demands of the new education system; teachers in pre-service institutions were being trained to teach for the new curriculum, while those already in service were being trained to improve their skills and adapt their practice to the changing curriculum. As mentioned above, most of the in-service teachers, especially in the former Bantu schools, were unqualified or underqualified for the work that they were doing. The teachers who successfully completed the programme were awarded the Basic Education Teachers' Diploma.

4.2.1.3 The Enviroteach project

The Desert Research Foundation of Namibia ran a project named Enviroteach Namibia between the years 1992 – 1999. The programme was funded by the Swedish International Development and Co-operation Agency (SIDA) and its aim was to lead and strengthen a cross-curricular approach to Environmental Education in Namibia. Enviroteach (1998) states that Environmental Education was not part of the curriculum; it was, however, contained in 'carrier' subjects such as Geography and Natural Sciences.

The project focused on three major components: curriculum development and production of learning support materials, supply of teaching equipment to schools and institutions, and in-service and pre-service of teachers. This project is credited to have played a crucial role in the reform process as it had a positive impact on Environmental Education being a cross-curricular issue, as will be discussed later (see 4.2.2.3). It also had an impact on the new teaching approach.

The Envirotech project discussed above was introduced to the in-service teachers through Continuous Professional Development. The teachers were trained on how to incorporate environmental content within their various subjects. It was, however, discovered that in-service teachers had a resistance to changing their way of teaching [D8], given the rote-learning culture of teaching in which they were schooled.

4.2.2 Social and cultural factors conditioning ESD development 1993-1996

The next phase saw the new curriculum gradually implemented in the primary school phase. Phase two ran between the years 1993 and 1996. It focused on implementing the newly-designed Basic Education curriculum and syllabi, in line with the new language policy. This coincided with the first intake of first-year college students at teachers' colleges discussed above. According to Teacher 5 (TI 5), the then MEC ran many in-service workshops and consultations to strengthen teachers' performance and enhance curriculum outcomes, "Workshops that I used to see many years ago which were a current thing are not happening.". The system was boosted by the recruitment of various foreign teachers and volunteers, especially for science-related subjects. The Enviroteach project discussed above was still in operation and continued to equip teachers with much-needed knowledge and skills. Environmental Education endured in carrier subjects such as Biology and Life Science. The establishment of the National Environmental Education Network (NEEN) was a milestone reached during this phase. A detailed discussion on NEEN's establishment is presented in section 4.2.2.2.

4.2.2.1 Basic Education Teachers' Diploma (INSET) programme

A 1989 UNESCO report revealed that 36% of Namibia's 13000 teachers had no professional training, the then Namibian Ministry of Education and Culture found it necessary to train those teachers to enable them to fulfil the goals of Education for All by redressing past inequities. The Ministry then designed a distance training programme to meet this need. According to (D8), the Basic Education Teachers' Diploma In-Service training (BETD INSET) programme started in 1994 in collaboration with the National Institute for Educational Development (NIED) and teachers' colleges as social structures.

The programme was designed as a cultural mechanism to equip both unqualified and underqualified groups of teachers with the knowledge and skills to implement the new curriculum. The training of teachers in the INSET programme aimed at helping teachers improve their classroom practice and develop a new culture in teaching the new curriculum. Teachers would attend classes during the school holidays, and they would do group and individual practical activities. The activities were designed to enable teachers to reflect on their practice as

they engaged in the practice-based inquiry and used the programme materials. The successful completion of the programme awarded teachers with the teaching diploma.

4.2.2.2 Namibia Environmental Education Network (NEEN)

NEEN was established in June 1995 after various consultations coordinated by Enviroteach (Paulick, 2003). As a social structure of direct relevance to ESD implementation, NEEN's policy statement states that it will, "encourage and support government, NGOs, and interested parties in implementing EE in Namibia under the guidance of the EE policy" (D4). Since its establishment, the organisation has used various mechanisms to develop the capacity of agents from various governmental and non-governmental organisations in fostering stewardship for the environment. Examples of these social mechanisms include: creating a network of environmental practitioners and interested groups who share activities and best practices through social networks such as WhatsApp and email. (It was through these networks that I came to be actively involved in ESD and related activities). NEEN has primarily interacted with other social structures such as government's line ministries and, at the time of reporting, the Namibian Ministry of Environment and Tourism spearheads its activities.

NEEN, as a formally established network, was an effective social mechanism for networking amongst the teachers and other stakeholders with environmental interest, and for facilitating the development of the national EE/ESD implementation from 1999 to 2018. NEEN was also an important cultural mechanism for strengthening teachers' environmental knowledge and incorporating it into their teaching practice.

4.2.2.3 The Enviroteach project evolution

The cross-curriculation work done by the Enviroteach project influenced the curriculum revision at this phase. The various stakeholders involved in the inclusion of environmental education explored options on the best way to incorporate the topic into the curriculum. There was much deliberation on the best way to include environmental education in the curriculum either as a separate subject or to infuse and integrate environmental content across various subjects. D8 states that the latter option was adopted by the stakeholders to coincide with the third phase of the education reform process discussed in the next section.

The social mechanism of training pre-service teachers to integrate environmental teaching in their practice proved to be more effective as compared to their in-service counterparts. The

training of pre-service teachers at the four training colleges proved to be the most appropriate as it was earlier discovered that in-service teachers had a resistance to change as they were used to a different culture of doing their work and did not embrace the infusion of environmental content in their practice [D8]. The preferred approach, therefore, was to orientate teachers to the inclusion of environmental education at the pre-service level through the teachers' colleges as described by T20 and T35. The Namibian Ministry of Education then adopted environmental learning as a cross-curricular issue in the next reform process.

The adoption of Environmental Learning as a cross-curricular issue had a direct impact on the culture in which teachers practiced. Teachers were expected to find ways to incorporate EE into their teaching of various subjects. For some subjects, including EE in classroom practice was explicit, while for other subjects such as English, it was rather implicit, and teachers needed to find creative ways of including it.

4.2.3 Social and cultural factors conditioning ESD development 1997-2009

The period 1997-2003 was the time for full implementation of the complete reform programme for grades 1-7. As mentioned above, the new curriculum embraced environmental learning as a cross-curricular issue. The teachers who went through the Namibian colleges of education were introduced to the concept of cross-curricular teaching.

It was envisaged by the then MEC that by the year 2006 a complete Basic Education cycle would be in operation. It took fifteen (16) years (1993-2009) to finally have Namibia's reformed education system in place and to fully implement a decolonized curriculum. The first complete cycle of implementing the new curriculum took twelve (12) years (1997-2009) before the first revision was initiated in 2009. During this phase, various events influenced the development of the ESD as elaborated in sub-sections 4.2.3.1 and 4.2.3.2 below.

4.2.3.1 Support Environmental Education issues in Namibia (SEEN) projects 2001 – 2010

D10 describes SEEN as an environmental project introduced by the Danish International Development Agency in 2001. The project worked in collaboration with the Namibian Ministry of Education as a social mechanism with the aim of developing professional development courses in environmental education for adults in the non-formal and formal education sectors. The project also developed a course to train professionals who had an interest in environmental education.

The project identified six themes to incorporate in various school subjects. The themes were: natural resources and their management; poverty and inequality; society and governance; development and the environment; health and the environment; and globalization [D10]. The themes focused on the environment's totality, covering its biophysical, political and economic spheres (SEEN, 2003). As stated in chapter 2, some subjects are 'carrier' subjects by their nature, while for others like English, environmental themes are mostly implicit and thus require careful planning if teaching *in/through, about* or *for* the environment (Fien, 1993; Lee, 1997) is to be successful.

SEEN (2003) recommends that English teachers develop a culture of choosing themes which are of importance to Namibia. It also suggests that teachers develop a culture of taking learners outside the classroom as they see that it enables better learning as learners experience and learn through doing or being [D10]. This has potential for enabling learner-centeredness as it focuses on issues that affect the learners directly and being exposed to real objects has potential for opening their critical thinking skills while enabling them to find solutions to complex real problems.

SEEN later collaborated with Rhodes University and the former Polytechnic of Namibia (now Namibia University of Science and Technology [NUST]) to offer the Rhodes University Participatory course in Environmental Education. NUST later ran the course independently and renamed it to Namibian Environmental Education Certificate course. This course was a big stepping stone to the development of Environmental Education in Namibia (Tshiningayamwe, 2011) and it provided an important professional development opportunity for some key people in Namibia's ESD field.

4.2.3.2 The launch of UNDES D 2005-2014

The UNDES D described in Chapter 2 (2.4.1) ran between 2005-2014. Although the Namibian government had endorsed the UNDES D then, ESD did not yet exist as concept in the Namibian curriculum. The implementation of the UNDES D was mostly networked through NEEN as a social structure. Teachers associated with NEEN like me became oriented to the concept of ESD and what it entails. The association to NEEN is, however, voluntary and hence only teachers with an interest in environmental sustainability benefited from this orientation.

4.2.4 Social and cultural factors conditioning ESD development 2010-2014

4.2.4.1 Introduction of curriculum 2010 and culmination of the UNDESD

The first reformed curriculum went through a revision process and a new curriculum was implemented in 2010. Curriculum 2010 retained environmental learning as a cross-curricular issue. The formulation of this new curriculum was necessitated by: “rapid changes such as technology advances, globalisation, HIV and AIDS, and environmental degradation” (MEAC, 2009, p. 1). It was “developed to give direction to Basic Education towards the realisation of Namibia’s Vision 2030. It ensures continuity of the foundation principles of the Namibian education system described in *Toward Education for All: A Development Brief*, in 1993” (ibid.), and replaces the Pilot Curriculum Guide for Formal Basic Education (MEAC, 2009).

The UNDESD which was introduced in 2005 culminated at the end of 2014. This meant that the decade had come to an end and a way forward was necessary to direct curriculum action. Prior to its culmination, a United Nations Conference on Education and Sustainable Development adopted the Global Action Programme which was to be a follow-up to the achievements of the UNDESD. The post-2015 agenda would be implemented the following year. This will be discussed in more detail in the next section.

Curriculum 2010 did not affect the culture in which teachers practice as it retained the cross-curricular issues as well as the pedagogical approach of active, learner-centred education. Teachers were to continue incorporating environmental learning in their practice. ESD was not featured as a concept in the school curriculum (D1) but it was highly promoted by NEEN as evidenced by D4. As discussed in 4.2.2.2 above, NEEN membership is voluntary and teachers join, and act based on their personal interest.

4.2.4.2 Teachers’ colleges merge with UNAM

The former teachers’ colleges were merged with UNAM in 2010. UNAM would now offer training to teachers across the school phases unlike previously when the institution only offered training for secondary school teachers. The four-year programme awards teachers with a Bachelor of Education degree upon successful completion of the course, reciprocating the three-

year diploma which was offered at teachers' colleges. Although Ntabi (2015) narrates that merging colleges into UNAM was seen to have potential to improve the colleges' status and their governance. Five teachers identified UNAM as a social structure influencing teachers' ESD practice when asked in the questionnaire if they had ever received any sort of training on how to include ESD in their practice, and from where (T10, T15, T16, T19, T24). For example, Teacher 10 explained:

Yes. During our BEd training at UNAM and during the introduction training of the new curriculum of the [Namibian] Ministry of Basic Education Arts and Culture's new syllabus in English as a 2nd Language conducted by Ms [Name withheld] Education Officer for English in 2015 at van Rhyn Primary School in Windhoek (T10).

T15 also answered in the affirmative: "Yes. During my four years (2012-2015) at tertiary institution (UNAM) by Ms [Name withheld] and [Name withheld]". T16 also indicated that, "Yes. From UNAM for 4 years. Mostly throughout the 4 years of training".

As for T19, the evidence was that s/he was trained on the cross-curricular nature of ESD by indicating that it was offered in two different subjects, "Yes. 2013-2014, University of Namibia Honours in Education (English and Social Studies)". T24 also indicated that, "Yes. UNAM English Language Education module".

From the above evidence, it is apparent that the national university has incorporated ESD in the teacher-training programme for Senior Primary teachers. This then implies that Senior Primary teachers from both institutions (former colleges of education and UNAM) were introduced to incorporating ESD prior to entering service. It can then be assumed that the teachers are suitably oriented to incorporate ESD in their practice. The ability of teachers to incorporate ESD in their practice will be presented in section 4.3. The first group of Senior Primary graduates from UNAM started practicing in 2014 just as the UNDESD came to an end. Unam however designed a Diploma course offered at some of its campuses such as the Keetmanshoop campus located in Southern Namibia, and through their part-time mode which has accommodated some of the teachers at the school where I practice. The Diplomas are offered for teachers aspiring to teach at the Junior Primary phase.

4.2.5 Social and cultural factors conditioning ESD development 2015-2018

The country is currently implementing Curriculum 2015. New syllabi, including the Senior Primary English one have been developed. The most significant curriculum change at this phase, as stipulated in the curriculum, is the inclusion of Grade 4 in the Senior Primary phase. Previously called the upper primary phase, the Senior Primary phase, now includes grades 4 - 7. Curriculum 2015 was gradually rolled out starting with the Junior Primary phase in 2015, and the Senior Primary phase in 2016. The curriculum was implemented in the Junior Secondary phase in 2017 and it is expected to have been fully implemented through the entire school system by 2022.

Just like curriculum 2010, the rationale to revise the curriculum was influenced by “rapid changes such as technology advances, globalisation, HIV and AIDS, and environmental degradation [DA 1].

4.2.5.1 The Global Action Programme on ESD and implementation of Curriculum 2015

As mentioned in the previous section as well as in Chapter 2, the GAP was launched in 2015 as a follow-up to the UNDESD. Its focus was on “generating and scaling up ESD action at all levels and in all areas of education, and in all sustainable development sectors” (p, 14). The GAP identified five priority areas which are: “advancing policy, transforming learning and training environments, building capacities of educators and trainers, empowering and mobilizing youth and accelerating sustainable solutions at local level” (UNESCO, 2014a: 15). Priority area three is the one that applies to school curricular that has been the focus of this study.

Although there were changes made on aspects regarding the curriculum phases, some aspects of the curriculum remained unchanged, such as the presence of environmental learning across the curriculum and the preferred pedagogic method. Two participants (T13, T34) perceive the revised English syllabus to be too big and demanding as indicated by (T13). The demands of the curriculum compromise the likelihood of teachers including environmental content as they have to focus on teaching the language content (T34). This was also echoed in interviews with TI 4 and TI 8. TI 4 expressed that:

...as English teachers we, or language teachers, we really concentrate more on the language cos when you teach a language, you are always behind because when others are entering their marks, you are always behind because of the continuous marking, marking

grammar so those things really hold us back and when you want to incorporate another thing, a cross-curricular which is not yours, you really say, let that subject teacher go teach it. Let me just concentrate on my work.

TI 8 commented that:

For the English curriculum, I feel the English curriculum is too broad, it's so broad that sometimes some of the content that have to be taught are bypassed because some of the terms are too short and they have a lot of things, so you just like mention it in a lesson and then you go by, so if it's possible for them to make sure that, if ESD can be made within all the terms and all {not audible} because it's just within one term that you can do all of this but sometimes you just like bypass the topic because you just want to get the rest of the content.

The former subject advisor, however, indicated to the workshop participants during the new curriculum training that the syllabus was not densified but rather expounded to make the learning content much clearer and detailed (Kauami, F, Personal communication, November 2015).

The new curriculum training mentioned above was conducted by the English Department within the Programmes and Quality Assurance in the Namibian Ministry of Education, Arts and Culture as a mechanism to sensitise teachers to environmental content and develop a new culture for their practice. It was a two-day workshop conducted in November of 2015 to introduce Senior Primary English teachers to the new syllabus that they were to implement the following year (2016).

4.2.5.2 The launch of SDGs

As discussed in section 2.4.1, Namibia became signatory to the adoption of the SDGs in 2015. The Minister of Education, Arts & Culture launched Goal 4 in the Khomas Region on the 25th of April 2016. KI1 implied that a focal person has been appointed within the Ministry's Programmes and Quality Assurance. He [KI1] also maintained that teachers were invited to the launch of SDG4, which he mistakenly commented as having been launched in 2017, not 2016. KI1 is familiar with the work of the Programmes and Quality Assurance and he indicated that workshops were rolled out to teachers on how to incorporate SDG4 in their practice: "Since last year, the teachers were introduced to the SDG 4 Goal, which relates to ESD, and the teachers are

informed to make sure that the cross-curricular teaching must take place”. This claim was, however, not corroborated by the data collected from teachers.

4.2.5.3 The consolation meeting on ‘The future of ESD’

In July 2018, UNESCO convened a meeting on the future of ESD in Bangkok where Namibia was also represented. The Future of ESD Report [D 7] recommends for Namibia that, “There is a need to explicitly integrate ESD / SDGs in the teacher education curricula (harmonise teacher education curricula with school curriculum), and to capacitate both teacher educators and teachers in service on ESD”. (2018). This recommendation could only be made possible with government’s will as they have the power (resources and influence) to adopt and implement policies.

Should the Namibian government implement the recommendations made from the Future of ESD conference, there will be a need to revise the school curricula and explicitly mention that ESD will be taught across the curriculum. Teachers will then need to be given Continuous Professional Development to improve on their culture of teaching, which will offer them the necessary know-how on teaching for sustainable development. At the time of writing this report, ESD is not yet explicit in our curriculum. Perhaps it will only become so when the EE/ESD implementation is finally launched.

4.2.5.4 Namibia’s EE/ESD implementation

The incoming national EE/ESD implementation mentioned in Chapter 2 (2.4.2.2) has potential for guiding the curriculum towards the implementation of ESD. As stated earlier, the policy is at an advanced stage as it awaits cabinet approval. In terms of Namibia’s draft policy for environmental education, EE is defined as:

... the process of developing environmentally literate citizens who are aware and concerned about the total environment and are empowered through knowledge, attitudes, motivation, commitment, skills and shared decision making to individually and collectively achieve an improved quality of life through the sustainable use of and appropriate developments of Namibia’s resources [D4: 4).

The formulation of the policy is now at an advanced stage as it awaits the cabinet’s approval as mentioned in sections 1.4, 1.5 and 2.4.2.2 above. Once finalised, the policy will guide

practitioners across sectors on how to facilitate and co-ordinate issues of ESD. The finalisation of this policy was also recommended in The Future of ESD Report (D 7), as discussed above.

Approval of the EE/ESD implementation has the potential to influence teachers' practice directly as it will serve as a guide for their practice. As a national document, it will have the power to influence Ministerial decisions as well as teachers' attitudes towards ESD.

4.2.5.5 Eco-schools Namibia initiative

The Eco-School Namibia Initiative (ESNI) is a public-private cooperation, inter-ministerial, inter-agency and multi-sectoral eco-friendly school awards programme. Still in its pilot stage, it seeks provide an opportunity for different agencies to work together while promoting individual interests for mutual benefits. In this partnership, the Namibian Ministry of Education, Arts and Culture promotes the setting up of eco-facilities and engagement into more eco-activities in schools, so that these can: (i) be utilized as subject teaching and learning resources; (ii) provide a healthy and inviting environment conducive to teaching and learning; and (iii) help save costs through resource conservation, such as water and electricity. The Department of Environmental Affairs on the other hand, promotes eco-friendly initiatives in schools to enhance environmental awareness and instil a culture of environmentalism in children who will then grow up as environment-conscious adults and citizens in responsible societies, while other agencies such as the Forestry, Water, Energy, etc. use eco-schools to promote conservation of resources.

The initiative has been rolled out mostly in northern Namibia, but it is envisaged to spread to other settings of the country. It has been well-received by various stakeholders including NEEN which has a direct link with various stakeholders. Although still at the initial stage, the initiative proves to have potential for influencing a whole-school approach that can impact on learners' and teachers' life choices, and the English teachers are no exception. The Eco-Schools handbook is a ready-made resource for teachers of all subjects. The book has been widely circulated through their website, the NEEN network and other WhatsApp groups.

Once fully implemented, the initiative could potentially impact the culture in which teachers practice. It also has potential for changing learners' mind-sets to grow up as responsible adults caring for their environment and developing the country sustainably.

4.2.5.6 NEEN 2018 conference

In 2018, NEEN resumed its annual conference after four years of dormancy. The last conference before this was held in 2014 following one held in 2013. The 2018 conference, themed *“Innovative strategies to develop peaceful co-existence with the wildlife”* was attended by learners, teachers, environmental officers, non-governmental organisations and many other delegates from various sectors. I noted that there was unfortunately no representative from the Ministry of Education, Arts and Culture, specifically from NIED as the curriculum development body. In her keynote address, De Sousa highlighted the importance of teachers who, as masters of their subject areas, can champion the cause of sharing new knowledge about the state of endangered wildlife, developing skills and interest in learners’ interest towards a green economy (2018).

The combination of the delegates attending the NEEN conference provided a platform for inter-sectoral networking. The conference offered teachers a platform for networking and sharing best practices. The presence of a keynote speaker from North-West University (in South Africa) indicates that Namibia is creating partnerships that could impact on teachers’ ESD knowledge. Suggestions were given for UNAM to partner with North-West University to develop courses for teacher professional development. This suggestion presents a good opportunity for teachers, including English teachers, to develop and improve their skills and strategies to implement ESD in their practice.

This section presented part of the data collected for this study. The data collected through document analysis, questionnaires and interviews was presented as a historical narration of social and cultural factors of Namibia’s curriculum developed from 1990-2018. The next section presents the rest of the data generated through the same sources. but focuses on the factors that condition English teachers’ understandings and practices regarding ESD.

4.3 Factors conditioning English teachers’ understandings and practices regarding ESD

This section is a continuation of presentation of the data collected for this study, focusing on the factors that influence teachers’ understanding and practices regarding ESD. Like the previous section (4.2), the section presents data generated from different sources, using different methods

to illuminate how various factors have contributed to English teachers' understandings and hence their practices regarding ESD.

4.3.2 An enabling policy environment

The Curriculum for Basic Education [D 1] as a guiding document stipulates that environmental education is a cross-curricular issue. This is a document that every practising teacher is mandated to be in possession of; thus, the infusion of environmental learning is something that all teachers should be familiar with. This aspect is also stipulated in the Senior Primary English Syllabi [D2]. The document [D 1] also sets a condition that all teachers be conversant with the curriculum and how to implement it, "teachers must be fully conversant with and competent in how to teach according to a learner-centred approach" (p. 49). Being conversant means that teachers are empowered to perform the work that they are expected to do; trained and oriented to everything that the profession requires.

The document [D 1] also encourages the use of one teacher per subject per phase which it states to be advantageous:

It is highly advantageous when a subject teacher teaches the same class throughout a phase. This ensures stability and continuity for the learners. The teacher gets to know the learners and their families well and can consequently do better learner-centred teaching. The teacher also gets an overview of the curriculum for a phase and can therefore better plan and organise learning throughout that phase (p. 50).

This has the potential to orient learners to ESD if the teacher incorporated it in his/her practice.

The document also pays emphasis to co-curricular activities which could complement formal teaching,

Co-curricular activities should be organised to support particularly important areas of learning or to supplement areas of learning with limited time in the timetable. Examples of such activities are HIV and AIDS clubs, science clubs, environmental groups, debating societies, a school newspaper or website, etc. (p. 52).

Environmental groups mentioned above could orient learners to the importance of environmental sustainability. There is a sufficient number of schools with such clubs in the Khomas Region, most of the environmental clubs network through NEEN which was discussed in the previous section.

Evidence from the data on the curriculum being an ESD enabler is stipulated below in sub-sections 4.3.2.1 and 4.3.2.2.

4.3.2.1 Evidence from interviews

Data collected from interviews shows that for approximately one quarter of the interviewees, the curriculum is enabling of teachers' ESD practice as evident from TI 2's response on how she came to know of EE and its cross-cutting nature: "I think it's also part of this curriculum. There is a part in the syllabus that says cross-curricular issues and they have given examples of materials that you can use."

I probed further to establish how she came to know about ESD being a cross-curricular issue, to which she replied saying:

It's also in the curriculum, we are taught to teach, we are taught to include this topics in the curriculum but also in our training we talked about environmental education in Biology, Geography and Development Studies, so we know the importance, and learners need to know how to use the resources sustainably such as water, forests and any other resources that are available sustainably 'cause they talk about renewable and non-renewable so they need to understand that in order for them to educate themselves and also to educate their parents at their villages or wherever they are. (TI 2)

TI 3 also indicated that she came to know about EE as a cross-curricular issue through the curriculum, "I think for the first time when, I think after independence when that new syllabus came out, we had a cross-curricular section in there as a term."

TI 11, also mentioned that that he came to know ESD through the curriculum despite not having formal orientation to the topic, ... "I think I was not introduced, it's something I just read in documents, and then lucky enough the curriculum also talks much about ESD and also it is part of sometimes it's part of teacher training."

4.3.2.2 Evidence from teachers' working documents

Evidence from analysing teachers' working documents [internal subject policy guides, schemes of work and lesson plans] as elaborated in section 3.3.1 revealed that two teachers (from the same school) responded to the aspect of having one language teacher per grade through the phase (TD 2, TD 4) as advocated by D1. They have one teacher per grade who moves with the same group of learners from Grade 4 through to Grade 7. The advantage of this is, however, dependent on the teacher's ability to incorporate ESD in their practice. The internal subject policy also addresses having reading corners which is a potential strategy to orient learners to ESD but then this also depends on the materials provided for the reading corner. This could benefit learners if the teacher is conversant with the strategies to incorporate environmental learning in their practice.

4.3.3 Teacher training and continuous professional development

As reported in section 4.3.1 above, the Namibian Ministry of Education requires that teachers get pre-service training to enable them to do their job optimally. Thereafter, while in-service, teachers are advised to remain continuously updated on emerging trends in education.

The National Subject Policy Guide for English Grades 4-12 [D3] makes provision for continuous professional development: "The school should partner and share the responsibility for in-service training of staff members" (p.5). It further states that, "Teachers should share information, experiences and strategies they were equipped with during training." (ibid). The same document also highlights the significance of advisory teachers. "[Advisory teachers] have extensive knowledge of the relevant subject areas and their responsibilities are, amongst others, to ensure quality in education through the rendering of liaison services and subject guidance. The school should fully utilise the expertise provided by Advisory Teachers."

Evidence of both pre and in-service training emerged from the data as reported in sub-sections 4.3.3.1 and 4.3.3.2 below.

4.3.3.1 Evidence from questionnaires

Out of the forty-three teachers who answered the questionnaire, twelve indicated that they have received some sort of training on how to include EE in their practice (T1, T10, T11, T15, T16, T18, T19, T20, T24, T35, T38, T42). Twenty-nine teachers indicated that they have never received any training, and one indicating that he/she could not recall.

The teachers have indicated that they came to know about EE and its cross-curricular status through teacher training from various Namibian institutions as well as through CPDs offered by the Ministry of Education.

Two teachers (T20, T35) indicated that they were introduced to EE while studying at the teachers' colleges:

- “Yes. The training was offered when I was at the college, it was a three-year course.” (T20). The three-year course was the teacher training.
- “Yes. At college (Windhoek College of Education), known as the teacher college.” (T35). These are the teachers' colleges discussed in section 4.2.1.3 where the Enviroteach environmental learning into the teacher training curriculum

Four teachers (T15, T16, T19, T24) indicated that their training was received while at the University of Namibia (UNAM). The university only started training teachers for this phase in 2010 after its merger with the former teachers' colleges discussed in section 4.2.4.2.

- “Yes. During my four years (2012-2015) at tertiary institution (UNAM) by Ms [Name withheld] and Mrs. [Name withheld] (T15).”
- “Yes. From UNAM for 4 years. Mostly throughout the 4 years of training. (T16).”
- “Yes. 2013-2014, University of Namibia Honours in Education (English and Social Studies), (T 19).”
- “Yes. UNAM English Language Education module (T 24).”

One teacher (T 10) indicated having received training from UNAM, as well as through the [Namibian] Ministry of Basic Education Arts and Culture:

Yes. During our BEd. training at UNAM and during the introduction training of the new curriculum of the [Namibian] Ministry of Basic Education Arts and Culture's new syllabus in English as a 2nd Language conducted by Ms [Name withheld] (former) Education Officer for English in 2015 at van Rhyn Primary School in Windhoek.

T 18 indicated that she/he had received training “... many years ago, through the Namibian Ministry of Education” (T18). These are probably the workshops given by Enviroteach in the nineties.

T38 responded that Environmental Education was part of his teacher training but did not indicate the name of the institution: “Yes. It was part of my teacher training when we were dealing with components of the syllabus.”

Evidence of Continuous Professional Development related to environmental learning also emerged from the data, for example, Key Informant 1 explained: “I was introduced to ESD through refreshing workshops for teachers and I know it to be cross-curricular because it's not part of curriculum studies...” (KI 12). Teacher 42 also noted: “Yes. Two years ago, by language facilitators for a week” (T42).” As quoted above, Teacher 10 also referred to having learned about ESD through a continuous professional development workshop in 2015.

4.3.3.2 Evidence from interviews

The evidence from interviews pointed to various structures through which teachers were trained on how to include EE in their practice. Four teachers, TI 6, TI 7, TI 9, TI 10 indicated that they got their training during their teacher training through UNAM.

TI 6 elaborated on the question saying:

I was introduced through the qualification, through the teaching that I received when I was studying, through my studies which is education at the University of Namibia. We have learnt a lot of topics that we were supposed to come and integrate here or to come and put in practice. How to, example, teach environment... how to have a theme, a topic and a theme on how to inform learners, at the same time creating awareness and also teaching them certain skills.

TI 9 indicated that:

I actually did it as I was furthering my education at UNAM. I was trained by the University of Namibia. The information I did for my studies enabled me that it's very important for, even if you are a language teacher, to integrate cross-curricular teaching in your daily lessons' preparations.

With mixed feelings, TI 10, who only started teaching in the year of the interview (2018) narrated that:

With introduction to ESD, I think, ever since I started practising when I came into the profession, it was never really brought to my understanding or to my attention. But while studying or when I was a student at UNAM, then that is when we would have, because there we had enough time and all that to have discussions on ESD, because I think our tertiary education is more focused on that but what is more disappointing is that it is really not taking place on the ground like when I was going through the questionnaire [administered for this study] is when I reflected back that actually we were being trained about things that are not yet implemented in the system.

TI 7 indicated that the training was offered to her while studying at the teachers' college: "It was introduced when we were studying at the old Windhoek College of Education. That's when we were introduced because it was part of the curriculum."

TI 2 indicated that it is stipulated in the curriculum and that she was taught how to include it but did not mention the platform through which the training was offered: "It's also in the curriculum, we are taught to teach, we are taught to include this topics in the curriculum but also in our training we talked about Environmental Education in Biology, Geography and Development Studies..."

TI 3 also attributed the orientation to EE to the curriculum, "I think for the first time when, I think after independence when that new syllabus came out, we had a cross-curricular section in there as a term."

Two teachers (TI 4, TI 11) indicated that they were not formerly inducted into EE or ESD: "I was not really introduced, it's just as you are learning, as you are going, as you are living day-to-day you come to teach it unknowingly" (TI 4). TI 11, sharing the same sentiments said, "I think I was not introduced, it's something I just read in documents, and then lucky enough the curriculum also talks much about ESD and also it is part of sometimes it's part of teacher training."

One teacher indicated that she came to know about EE and its cross-curricular nature through a non-governmental organisation, "There was a moment when we went on a tour to KEEP (Khomas Environmental Education Programme), ...Giraffe KEEP...we actually went with the learners and there we learnt about different contents about the environment actually." (TI1).

KI 1, as a Senior Education Officer, maintained that new teachers get induction training every year: “We build up a database to find out how many teachers were not trained and those teachers that were not trained, we do in-service training for them or we actually inform them about what was happening, in all the subjects. That is what we do every year. We induct teachers”. This however contradicts the number of teachers (seven) who have indicated not having been trained or assisted from the said Ministry (see 4.3.4.2).

4.3.4 Teachers’ motivation for practising ESD

The collected data revealed issues pertaining to teachers’ motivation for implementing ESD in their practice. For this study, teacher motivation should be understood as both the things that make teachers enthusiastic (positive) to implement ESD in their practice or those that make them pessimistic (negative), or those that create a dilemma for the teachers. Both positive and negative reasons have been revealed by the data as discussed below.

4.3.4.1 Teacher confidence

Some teachers expressed self-confidence in implementing ESD such as TI 3 who indicated that she actually offered help to the subject advisor instead of the other way around:

Much of the time, with the previous subject advisor, that was actually kind of cute, she actually got a lot of information from me. And, put it this way, that the more older teachers, because of their experience, so I was able to help, I actually helped the subject advisor and not the other way around.

TI 7 expressed that one needs to keep improving. He did not indicate any immediate need for support saying:

I know...teaching is a continuous thing, so we need to keep improving so you never say that I am a perfect teacher, so there might be a time that you really need some assistance so, I will not say what exactly but there is a time that you need to refresh or go for a refreshing course.

While TI 9 comfortably indicated that, “Currently we are comfortable with what we are having. I don’t know whether if NIED might also prescribe other additional materials that might be needed for teachers to use to implement cross-curricular teaching.”

4.3.4.2 Teachers getting assistance

The teachers who indicated having received assistance from subject advisors indicated that they get help through workshops as well as material assistance, “Every now and then we go for workshops and they also assist us with equipments (sic) if we need any resources to use in our lessons” (TI 7). TI 9 who teaches English at both First and Second language levels shared the same insight but stressed that the workshops were for first language (level) schools,

We are actually getting workshops. We are going to cluster meetings and we are attending workshops actually on the first language English schools. The last one was at Orban [Primary School] last term [term 1 of 2018] and I hope this term [term 2 of 2018] we will have some English meetings where we are exchanging views with our colleagues who are teaching the subject on different levels whether it’s Grade 5, 6 or 4 etc. So, the subject advisors or facilitators are the ones providing us with information for example drawing up of term plans, year plans and all those types of things.

When asked if the workshops cover how to include ESD in their practice, he replied:

Actually, at those workshops they are emphasising a lot on it in the sense that for example when it comes to ... uh...they are emphasising on it because it’s very important, it is part of the curriculum, it is prescribed in the syllabus and actually all the teachers that are teaching English at the upper primary level should actually implement cross-curricular teaching because that’s very important.

TI 12 indicated that “Subject advisors offer support through the workshops they offer every three years. At these workshops, teachers are given handouts and video teachings are also done, for better understanding.”

4.3.4.3. Teachers lacking assistance

A greater number of teachers (TI 1, TI 2, TI 4, TI 5, TI 6, TI 8, TI 10) indicated that they lack support form advisory services. TI 1 said, “Honestly, ah... our subject advisors don’t really

engage us or enlighten us or give us information on how to incorporate [ESD] and...now what can I say?"

T 2's response was:

From subject advisors? Uh uh...apart from when we have readathon the [Namibian] Ministry [of Education, Arts and Culture], that department that deals with readathon, the libraries, they always send us pamphlets and give us themes to select and read about. This year, the readathon is about, for example, saving water, or animals and stuff like that. Apart from that, that's all I know. During readathon we always get themes and most of the themes have to do with environment.

Asked as to how often the school was visited, her reply was, "The last visit was probably three years ago; we haven't got any visit from them."

TI 5 elaborated that the support is theoretically there but not practised:

Well I will say, ah...in theory the support is there. Why I am saying in theory is because according to the policy that is what is supposed to happen but maybe because of financial means and so on, that kind of support is not readily available. Workshops that I used to see many years ago which were a current thing are not happening.

He further lauded the opportunity of working in cluster groups although it was context-dependent:

Yet we have an opportunity of working in cluster groups which, depending on management of that cluster, which can be used to facilitate that question. But again, if you don't have people that are taught in particular what it means to drive ESD, then the effort also falls short. So, I am giving you a mixed answer to say, in theory the support should be available but then because of other factors, maybe that support is not readily available.

TI 6 expressed that, "Normally at my level, because I am an ordinary teacher, my subject advisor as the person that I would run to first if I have an issue within my subject is my HOD." He said that he has been teaching English for three years but only rarely got support from subject advisors. Asked if he could recall how often he was visited by people from that department, his answer was:

I have never been visited by those people, but they do send certain information out. For example, they work through the principal by if we have an awareness day of campaigns and all these things like ‘Save the Rhino’ and all these things, then we have emphasis, then we have pieces that we do, then we have competitions that we run with the children.

TI 8 described the channels for seeking assistance at her school:

Basically, how it works is, you talk to your HOD or your HOD – Head of Department sees where the need and the lack is and then they bring in the subject advisor to come help you. Either if you need more training or if they can organise material that they give you and you go through.’

The availability of HODs revealed by TI 6 and TI 8 above presents an opportunity for capacitating teachers on issues regarding incorporation of ESD in their practice.

TI 10 who only started this year expressed that he has not received direct assistance from advisory services. “Not directly, no. I cannot recall any time where we had a discussion actually about ESD.”

Contrary to these perspectives, when asked how often they visit teachers, KI 1 commented that Programmes and Quality Assurance division has a programme for visiting schools:

We have a program that we draw in the beginning of the year, we just make a division between the secondary schools and the primary schools, but I can tell you that every term we visit 25% of schools. Although we focus on under-performing schools, we can also do unannounced visits, we can do random visits to the schools that are also doing very well. That is what we do. We visit schools quite frequently to make sure that the standard also is maintained and enhanced at all the schools.

The absence of a guiding policy document on how to implement cross-curricular issues may also be a hindrance on how to successfully incorporate ESD in teachers’ practice. In an email correspondence asking about the availability of a guiding document on incorporating cross-curricular issues, Simaluba (2018) maintained that the information contained in the syllabuses and the national Curriculum for Basic Education is sufficient to guide teachers’ practice.

4.3.4.4 Absence of an advisory teacher

Two of the teachers, TI 2 and TI 11, commented on the absence of a subject advisor for the English Department in the region. This situation arose when the former subject advisor resigned

from the position to take up another job at the beginning of 2018. The position was finally filled in early November 2019. At the time of collecting this data, the advisory teacher for Namibian African Languages was standing in for the English teachers, meaning he was overseeing two subjects. One teacher commented:

...if I'm not mistaken, I don't think the English department for primary school has a subject advisor at the moment. We had one until end of last year but as from this year, I'm not sure if somebody has been appointed in that post... (TI 3).

She continued saying:

...but there are certainly aspects that it would be nice if there was a subject advisor for clarity and you know these funny nitty-gritty little things that you ask another teacher: they do it this way, then another school does it that way. Now what are we supposed to do? Because we are supposed to do everything, every school has to do things the same way. So sometimes that causes a bit of a confusion and at the moment, well as I said, I don't know who that is, if there is a subject advisor.

TI 11 similarly mentioned that, "There is no support at all. We actually don't know who is the advisors (sic)."

KI 1, however, maintained that, through his office, teachers are being capacitated in this regard:

I am a Senior Education Officer, responsible for languages, and I am also dealing with the SDG 4 programme which directly involves education. Education comes in and this education is part of what I am doing. That's where ESD comes in and it is also linked to being an advisor for languages. Being the advisor for languages means that we have to support the teachers that are dealing with education and teaching at schools. It entails all the aspects that relate to ESD. We also have a part that we play as educators in ESD for being the Senior Education Officers or being the education officers for that matter. It's part of education so it is included in the packet.

From his narration, it appears that the education system has established structures and mechanisms intended to equip teachers with knowledge and skills to overcome ambiguities and predicaments that confront them in their practice. The structures and mechanisms were however not well-specified in his description.

4.3.5 Teachers' own passion

Some teachers indicated their passion for ESD. This was evident from various data sources like the two teachers (T28, T30) who indicated in the questionnaire not having received any training yet were positive about the nature of incorporating ESD in their practice:

- “No. But for the English teacher it is very easy to include it in daily teaching with prescribed curriculum. And if you are passionate about environmental issues, then you include it in most of your modules.” (T 28)
- “No. As a language teacher it's very easy to incorporate/ include it in my daily lessons to be taught.” (T30).

TI 3 similarly emphasised the benefit of incorporating EE in her practice saying:

Although ESD was not explicit in the English curriculum, one of the respondents indicated that she was already including ESD themes in her teaching and stated that, ... beforehand I did it automatically whereas now it's actually got a name. Right, but before independence I was teaching that way anyway, cross-curricular and then after the new syllabi started coming out and the latest one as well the cross-curricular things.” (TI 3). She commended on the suitability of English Language to teach ESD saying:

English is actually very nice because you can bring in Social Studies, you can bring in History, Geography, Science, Maths and environment. I often refer back in some comprehensions, some listening comprehensions and I refer back to them and I say ok, fine: How does this concept or what we have just done in class influence the environment around us? And then I get a more of a continuous feedback give-and-take from the children as well to make them realise that what we do in English is not in a box. There are other factors involved and also going outwards that they can also start learning to think outside the box as I said with environment, I keep a name, 'keep it clean, keep it clean'.

4.3.6 Conceptual understandings

The study also sought to establish teachers' conceptual understandings of some key concepts relevant to ESD. The concepts of 'Environmental Learning as a cross-curricular issue' and ESD were explored through the questionnaire and ESD was explored further still through the

interviews. The data revealed various degrees of comprehension amongst the teachers, pointing to some teachers having substantial understanding of both Environmental Learning and its cross-curricular nature, as well as ESD.

On the issue of Environmental Learning as a cross-curricular issue, all teachers demonstrated a good understanding such as:

- It's learning about the precious environment looking at various subjects. It's about acquiring knowledge, skills, and understanding on how human activity can have a profound effect on the natural environment when it comes to climate change, global warming, fossil fuels, extinction of species, greenhouse effects etc. (T 11)
- That Environmental Learning can be taught across the curriculum as all subjects relate in one or another way to the environment, thus offers a great opportunity to exploit the environment as a learning tool. (T 18)
- Learning about the issues concerning the environment in all the subjects.” (T 33)

Teachers' understanding on the concept of ESD also varied across different teachers. T5 and TI 10 understandings were similar. T 5 replied that:

This means we should focus our education on making our communities aware of how we can develop our country while taking care of the environment at the same time. This means targeting industries that will not cause any harm to our environment.

While TI 10 shared a similar understanding:

My understanding on ESD is that we should at least in our system, in the education system, focus on educating or teaching our learners and our societies about how to develop or ways of developing our country without affecting the environment, like the sustainable ways and how we can help it to become sustainable, let's say in terms of food production and all that, and then just focus on the industries that do not harm or cause any damage to the environment in the process.

T 42 stated in the questionnaire that ESD entails, “Using education for the development of the country.” TI 5 elaborated during an interview on the need to attach the words ‘education’ and ‘sustainable development’ together to get the conceptual understanding, elaborating that:

Ah...Education for Sustainable Development. What I understand by Education for Sustainable Development I...we need to attach those two words together; education, and sustainable development. So, that is where education responds to the environment, so it becomes an environmental education, so the environment be seen in context of the education and not as two isolated entities. Ja...that is how I understand Education for Sustainable Development.

KI 1, as the key informant for this study, responded that, "...my understanding would be that ESD

is to ensure inclusive and equitable education, and to promote lifelong opportunities for all citizens."

Six of the teachers (T6, T 15, T34, T 36, TI 8, TI 9) demonstrated a limited conceptual understanding of the concept of ESD as evidenced in the following extracts from questionnaires and interviews:

- I'm not quite sure. Education that will be able to sustain development in education. (T 6)
- Being able to recycle, using compost (own), vegetable gardens. (T 15)
- That you need to develop gradually in your education. (T 34)
- To continually develop yourself to become a better teacher at the subject you teach. To keep learning new things (T 36).
- Apart from reading it on the questionnaire, I really don't have a good understanding of what it is and how to properly answer on it, so ..., I don't really know that much about it. (TI 8).
- My understanding of ESD is that sustainable, actually what we as educators what actually were supposed to sustain or implement in our different classrooms across the curriculum from grade 5 to 7, inter-curricular teaching is supposed to take place in various subjects. Actually, as we are teaching English at the upper primary level, we must integrate the different components of cross-curricular teaching (TI 9).

4.3.7 Supportive networks

4.3.7.1 Schools' subject management

The school subject structure is commonly the first support network available to any teacher. The subject leadership which consists of an HOD and a Subject Head offers a great opportunity for teachers at a given school to collaborate on strategies to best implement the curriculum. In the case of English in the Senior Primary phase, the subject head is empowered by the subject policy guide to find opportunities for CPD and other subject related issues. According to that document, the subject head should be, “facilitating and creating opportunities for team building and continuous professional development in order to improve the teaching competence of the teachers involved” (MOE, 2009, p. 5).

From the internal subject policy guide (TD 8 and TD 9), I detected that the school makes provision for CPD. The policy encourages teachers to invite guest speakers and create platforms to share feedback. It also makes provision for teachers to inform management if the need arises to get support from Advisory Services.

If a good relationship exists between the subject head and HOD, and if they are both fully conversant with the curriculum requirements, networking within the school’s English department can enable teachers to implement the curriculum effectively. Evidence of this kind of networking was provided earlier in section 4.3.3.3 by TI6 and TI 8 who described the role played by their HODs.

4.3.7.2 Cluster school groups

Cluster groups are a mechanism in the Namibian Schooling system to bring subject teachers from cluster schools together for planning and support purposes. As elaborated in section 2.4.3.3, clusters are meant to share knowledge, skills, ideas and materials such as common schemes of work, and year subject materials including learners’ activities, tasks and assessment. Teachers in a specific cluster are further divided into cluster subject groups based on the subjects they offer. Two teachers (TI 5 and TI 8) lauded the existence of their cluster groups for providing opportunities for them to network and share best practices. Teacher 5 emphasised that his cluster group’s success depended on their management. He emphasised that the cluster group can be only effective if it is under good leadership. Teacher 8 noted the success of his cluster group’s interactions in supporting the integration of ESD in English teaching practice. These platforms can be creatively utilised for CPDs and to orient teachers to emerging trends such as ESD and practices from other contexts: local, regional or global.

The subject policy guide document [D2] also comments on the purpose of cluster subject groups stating that: “The purpose of cluster subject group meetings is to improve efficiency, build capacity and empower teachers. Attending and participating in cluster subject activities can play a positive role in collaborative development and improving quality teaching and learning” (MOE, 2009, p. 8). This is a great platform for teachers from the same cluster to be empowered to best implement the ESD in their practice.

On Advisory Teachers, the document also advises that, “(ATs) have extensive knowledge of the relevant subject areas and their responsibilities are, amongst others, to ensure quality in education through the rendering of liaison services and subject guidance. The school should fully utilise the expertise provided by ATs” (ibid: 8). It will thus be to the advantage of the teachers in a given cluster to engage the expertise of Advisory Teachers to improve on their practice. The importance of engaging in cluster activities has been incorporated into schools’ internal subject policies (TD 8, TD 9) as it encourages teachers to participate in cluster subject activities which is understood to “play a positive role in developing quality teaching and learning” (TD 8, DT 9).

4.3.7.3 NEEN

The existence of NEEN discussed in previous sections is a great networking opportunity for teachers. If more English teachers join the network, they stand a chance of being capacitated with emerging trends from other contexts, such as the opportunity to attend the network’s annual conference and other conferences such as EEASA which was attended by twenty-two Namibian teachers in 2018.

NEEN is the body through which most school-based environmental clubs are networked. The environmental clubs are among the co-curricular activities emphasised by the curriculum [D1] to complement formal teaching:

Co-curricular activities should be organised to support particularly important areas of learning or to supplement areas of learning with limited time in the timetable. Examples of such activities are HIV and AIDS clubs, science clubs, environmental groups, debating societies, a school newspaper or website, etc. (p. 52).

Through co-curricular activities, more and more learners have an opportunity to get to know the value of the environment and the need to preserve it.

4.3.8 Teachers' perspectives on the potential of Senior Primary English as a catalyst for Namibia's sustainable future

The data reveals that guiding policy documents, Ministerial officials and English teachers themselves all recognise the potential of Senior Primary English to move Namibia towards its sustainable development goals. As discussed in Chapter 1, the curriculum grants English at this phase the maximum time of seven periods per week on the timetable [D 1]. This puts the English teacher in a good position, as discussed in Chapter 2, to promote ESD as the English teachers meets the learners every school day.

Commenting on the position held by English in the curriculum, the key informant for this study narrated:

Luckily all the schools are offering English and like I said in the beginning, it's teaching and education. English is part of the curriculum, English must be taught in all the schools, English is the official language, English is the language that we use to communicate in, in the Republic of Namibia. ...English is the language that must guide the learner in the school. Since we deal with education, since we deal with creating opportunities for all the people, English is part of that. That's where ESD comes in. English is the bottom-line, English is used to educate the Namibian nation. (KI 1)

Also commenting on the nature of English in the curriculum, Teacher 5 noted: "I see very good potential because the English subject allows discussions/themes about anything. So, a greater emphasis can be put on sustainability" (T 5).

The use of the thematic approach (TD 3, TD 7), and the evidence seen in TD 8 and TD 9's internal policy both point to the willingness of teachers to adapt ESD approaches to teaching and networking. The latter aligns with the contents of the national subject policy guide [D 1], which encourages continuous professional development and participation in cluster subject groups "...Attending and participating in cluster subject activities can play a positive role in collaborative development and improving quality teaching and learning".

Two teachers (TI 2, TI 5), who are both school principals, deplored the quality of the recommended textbooks used at this phase. TI 2 lamented that the books currently used at the phase often lack EE content, driving the teacher to use other means to find relevant content:

I would like them, like when they are choosing textbooks, or they are in touch with people who are...who produce books, they should ask them to include such topics in the textbooks because then the textbooks that they prescribe, sometimes they do not have such topics then we are forced to abandon them a bit and go and look for information from elsewhere that has to do with environment. So, they just order books but when you flip through, there is nothing to do with environment and then you need also to teach them that. So sometimes we have to look on our own internet, so what I would like to them is to also liaise with the authors of textbooks and have a workshop with them or training them to say these are the aspects that we need the learners to know so that when they produce books they don't have to struggle (T 2).

TI 5 sharing similar sentiments, compared the current textbooks to the books which were used before independence. He elaborated on the lack of theme continuity in the current books as contrasting to the contents of books used previously:

...the quality of the textbook books for example that we are using currently, comparing them to the, you know I am from the old dispensation, comparing the quality and relevance of the materials that we are using today. It seems to the materials we are using today do not follow suit, they do not address for example the environmental issues as we are talking about. Because I remember in those days you could clearly see how the books is (sic) developing. Let's say from Grade 1, you have a development of one kind of story or a set-up of a story that is just building up from Grade 1 up to Grade 7 for example. And...it was very much put well in context.

He also expressed his disappointment on the selection of approved textbooks, identifying a kind of irregularity which has compromised the textbooks' quality.

It seems to me nowadays it is a matter of whom do I know, whose book will I approve, and we neglect the quality of books that are being introduced. So, the quality of books must address English across the curriculum, taking environmental education into consideration.

This suggests that textbook contents are seen to hold potential for promoting Namibia's sustainable development goal. Both TI and TI 5 are school principals.

Several other teachers (T 10, TI 1, TI 5, TI 8, TI 10, TI 11, TI 12,) recognised the potential for English at this phase to promote sustainable development in Namibia which they see possible if they get more engagement and support from Advisory Services. They stated their desire to have workshops and other training to improve on their practice.

Asked about the kind of support they would want from their subject advisor, TI 1 replied "I think it's a good idea but maybe they just need to...to give us some workshops or training on how to incorporate these types of programmes that are related to the environment". T5 shared the same opinion:

What I would say is more engagement from the Advisory Services; more workshops that are being conducted, trimesterly for example, to the extent where teachers are really comfortable and are able to drive this process on their own. I think we need to start there. That is the kind of support that I would really require from Advisory Services.

TI 8 stated that she would want proper training, "A proper training on how to implement it [ESD], on how to use it as a subject to make the kids understand it, and as well as myself so that I can better implement it."

Two teachers expressed the need to be assured that they are doing things the right way.

I think I need support from the advisors, in terms of I think in terms of everything that needs to be done from the beginning, it's like we are starting afresh now. Because I've realised that maybe sometimes I make mistakes and then I need a senior person to advise me (TI 11).

"I would've loved to see my subject advisor more through school and class visits, to ensure that I'm on the right path and doing things the correct way" (TI 12).

TI 10 also expressed the need for a platform in which teachers can be oriented to ESD and how to best implement it.

I think just like any other policies which are side-lined in our profession, I think the most important thing is just to [inaudible phrase] for them to create a platform for us teachers

on where to start off. Even with starting with distributing the policies on hard copies and then maybe during meetings and all that we can have discussions on it, on how we can take it on, just to allow us to know where to start off and then we can take it on from there.

He continued on the notion of just starting somewhere and accords prominence to ESD as a catalyst for the future:

Ja...all I can say is that we just need to focus more on this. We need somewhere to start off and just, because I can see that the future depends on the ESD, like on the discussions about ESD, and people need to gain more understanding about this. So, we just need somewhere to start off and keep the (not audible)'.

T 10 commenting on the subject stated: "If implemented, the potential is very good, and it is there. It must just be supported".

Three participants (TI 4, TI 2, KI 1) commented on the inclusion of ESD in the curriculum. Their comments ranged from it being included in the English syllabus, being included in other subjects and it being allocated its own slot in the timetable.

If I had to ask my subject advisor, she can include it in the syllabus, as I have seen in the syllabus HIV/AIDS is also included there. So, they can include it there so that it becomes a must now; we should teach it and that it doesn't take the backstage. I will also ask my subject advisor to give me more passages, more stories, more stuff on this ESD (TI 4).

Asked if she had anything else to comment on the issue, she emphasised:

Just as I said before, I would like whoever is in charge of ESD, should really contact NIED and then put it in so that we teach our kids more because we live on the environment and our kids or our children need to know more of the environment. Not only to come and hear it in science or other related subjects. So that it is included in all the other target languages be it Oshindonga, Otjiherero, or Khoekhoegowab so that we teach more of it (TI 4).

TI 2 suggested that ESD be included in other subjects as well:

In English curriculum, apart from in English, they can also include it in other subjects. They can include also this ESD in other subjects such as Mathematics and others to say

how to sustain these resources that we have. It is very important that they are sustained, used sustainably.

KI 1 expressed that it would be good if ESD would be availed its own period in the timetable:

Since I already mentioned that English is the official language, we must just improve on the implementation because sometimes it is not specific, and this can be sort of challenging for the teachers. If we can have a proper guideline, if need be, maybe I have a period for that specifically so that we know this period is also implemented into the curriculum then it will be much effective. We are on the broad curriculum system, we can make it specific, then it will be beneficial for all the schools and teachers.

He stressed that when things are broadened, they tend to be neglected:

Yes, like we have reading. Then it will be more specific. You see sometimes when the things are broad it is sort of neglected and you have to be there that to take place, and we don't want that situation. We need to create awareness, on a very constant level and that is what will benefit us at the end of the day. (KI 1)

KI 1 also pointed out that teachers have been introduced to SDG4 (discussed in section 4.2.5.2):

Since last year, the teachers were introduced to the SDG 4 Goal, which relates to ESD, and the teachers are informed to make sure that the cross-curricular teaching must take place. They must make sure that all the goals are covered in all the lessons that they are giving. This must automatically happen at all the schools. English is happening, ESD is taking place, it is part of SDG and teachers are sort of compelled to make sure that they cover all the seventeen areas of SDG. It must happen at all schools and it's happening.

The comments in this section point to English as a potential subject for orienting society towards achieving sustainable development.

4.4 Teachers' strategies to implement esd in their practice

This section presents the various strategies that teachers use for incorporating environmental learning in their practice. The data was derived from questionnaires, interviews and teachers' working documents, that is, schools' internal subject policy guides, schemes of work and plans

of lessons presented. It was evident from the data collected that teachers incorporate ESD in their practice.

From the data collected from the questionnaires, 38 teachers (T1, T 2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T13, T14, T15, T16, T17, T18, T19, T20, T22, T23, T24, T25, T26, T27, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, T39, T43) out of 43

indicated that they incorporate EE in their practice. Teachers T12, T40, T41 and T42 indicated that they do not incorporate EE in their practice while one teacher (T21) did not respond to the question. The data from teacher interviews indicated that all interview participants (TI1 - TI12) implement EE in their practice. It became evident that teachers used different strategies for incorporating EE in their practice: the thematic approach, using materials familiar to learners, and using environmental topics for discussion, debate and creative writing. These are discussed below.

4.4.1 Using the thematic approach

It was found that some teachers adopt a thematic approach to incorporating ESD in their practice. T39 confidently responded that the thematic approach makes it easy to implement ESD in ones' practice: "According to the thematic approach, it is easy to incorporate it in our teaching by giving a listening comprehension, oral or continuous writing on the topic."

T15 and TI 7 elaborately narrated how they incorporated ESD in their practice over a period of time. TI5 explained how the learning content is structured over a term: "Lessons as structured throughout the term are based on themes, these themes include five animals and the environment, care and conservation just to name a few. All reading, writing, speaking and listening materials should be done according to these themes."

Similarly, TI 7 elaborated on his use of the thematic approach, basing all his weekly activities on a given theme to meet the syllabus competencies:

We usually start on a Monday, where we take a specific cross-curricular topic, and we include all the activities that must be done throughout the week. For example, we take a text that covers a certain cross-curricular topic and we draw questions from there, and also it covers speaking test, grammar and reading comprehension.

There was substantial evidence in teachers' documents such as from the lessons (TD 5), that Teacher 7 adopts a theme across a given week, which he uses to teach various syllabus competencies. Some of the themes were: clean water, funny animals, harmful animals and nature. According to T I3, however, the thematic approach is being phased out and the school is in the process of drawing up new schemes of work.

4.4.2 Using materials familiar to learners

The data revealed that some teachers use familiar materials and scenarios to incorporate environmental learning in their practice. This aligns with the pedagogy encouraged in the curriculum: taking learners from known to unknown in the process of building knowledge.

T16 explained that, "I use real life experiences in my lessons by relating English topics to other subjects". T5's example of incorporating EE was, "For example, if the content is too general, I ask learners if they have had the experiences before, even if they never have the experience, I could ask them a question that would trigger their imaginations and thoughts about the matter under discussion".

T17 maintained the need for learners to have a personal connection to the (environment) material: "Students need a personal connection to the material. Relevant through showing how theory can be applied in practice, establishing relevance to local cases (and) relating material to everyday applications in current newsworthy issues." Although the comment does not indicate how s/he incorporates the cross-cutting issue, the teacher has explained the need to establish local relevant content.

Similarly, T 25 also indicated that he tries to arouse learners' prior knowledge: "I use reading materials that are based on the environment. Do projects on different topics of the environment to create awareness and to arouse their prior knowledge and experiences".

4.4.3 Using environmental topics for discussion, debate and creative writing

The data revealed that some teachers incorporate environmental learning through discussions and debate. This was shown to be more dominant with teaching poetry. Other teachers indicated using it through creative writing. T 8, T 10 and TI 1 explained that they use environmental themes in poetry which they later discuss and debate. T8's indication of incorporating EE was, "I incorporate environmental content through group discussions and debate. I also give the learners

an opportunity to compose poems on issues affecting the environment e.g. water pollution. Learners read stories and passages related to the environmental content”.

T 10 shared similar insights on how s/he incorporates ESD: “We get learners to read articles pertaining the environment such as poems, comprehension passages and during that process, we discuss and answer questions in the skills of listening, spelling and writing essays etc.”.

“Well, am...sometimes I just take pictures or poems and stories with content related to the teaching about the environment, and information that just enlighten people about the environment....” (TI 1).

With some probing on how she shares the abovementioned materials with the learners, her explanation was: “We discuss... and debate about issues related to, for example, ah... littering or how to save water or ah...using our natural resources such as diamonds and...all those kinds of thing.”.

Giving creative writing activities was a strategy that T 38 indicated to have used by giving a scenario: “Learners will for instance write about environmental problems in particular pollution. They choose a topic from given topics to write an essay: water pollution, ground pollution, noise in their environment or any of their choice”.

TI 12 explained that she incorporates the ESD in various ways:

I implement ESD through various activities in my subject. Learners write essays concerning issues relevant to the country, they do Reading and Listening Comprehensions which provoke their thinking and make them think out of the box. Learners are taught to become creative thinkers and they learn about ways to sustain the country's resources. They do projects to show understanding and how to implement certain things in their daily lives.

4.4.4 Evidence of ESD inclusion in teachers’ working documents

The interviewed teachers were each requested to provide their working documents. The documents (internal subject policy guides, schemes of work and five random lessons taught) were requested. The purpose for this was to search for evidence of teachers incorporating ESD in their practice.

TD 1 only gave her lessons which she used to teach grade 4. It was detected that all her lessons were textbook based. They were themes in a textbook entitled 'Let's Do', which is one of the approved textbooks series for this phase. All the lessons provided insights of the presence of ESD, ranging from conservation, pollution and visiting game reserves. Each lesson also tested a given skill as well as grammar components.

TD 2 and TD 4 practice at the same school. They both provided all required documents. Their internal policy, which clearly states that it was adopted from the syllabus, means that these teachers' practice complies with environmental learning being a cross-curricular issue as discussed in section 4.3.1 (one teacher per grade, reading corners, using themes selected by teachers). The policy also refers to tasks be selected from a theme selected by teachers. If teachers select environmental related themes, this could orient learners to sustainability.

TD 2's scheme of work did not contain explicit themes but four of the lesson covered environmental aspects such as natural heritage, in particular focusing on why birds are a natural heritage. Other aspects included conservation of ostriches and a poem on monkeys. Although the poem was not included, and the lesson's focus was on teaching the poem's structure, it was seen to have potential for orienting learners to facts about monkeys. TD 4's scheme of work explicitly exhibits environmental learning themes such as reading a map, listening to and presenting a weather report, reading a weather map and talking about fire. Like TD 2's topics, the scheme of work was derived from the prescribed textbook, 'Let's Do'.

Data detected from TD 3, TD 5 and TD 7 is the use of the thematic approach discussed in section 4.4.1 above which, depending on themes selected, will have potential to orient learners to the concept. As noted earlier, the thematic approach has been discouraged by the Namibian Ministry of Education and the school is currently drawing up a new scheme of work.

Environmental issues were visible from TD 6's scheme of work. Topics detected were: Namibia is a sunny country, weather report, animals and the environment, care about conservation, and talk about poaching. From the actual lessons presented, topics of the sun and the wind were noted.

TD 8 and TD 9 practice at the same school so their internal subject policy is the same. As discussed in sections 4.3.6.1, 4.3.6.2, their internal policy complies with networking and sharing best practices. TD 9's scheme of work displays three environmental related topics; traditional

stories, useful plants and the importance of water. All lessons provided were under the theme traditional stories and covered various language skills such as listening, reading and grammar. As for TD 9, the scheme of work also displays environmental related topics such as staying healthy, animal attitudes, and weather in our lives, although there was no elaboration given on the topics. His lessons were all on pollution, covering speaking, listening and reading skills.

4.4.5 Challenges experienced with inclusion of ESD in practice

When individual teachers were asked about the level of success of the inclusion of environmental learning in their lessons, 28 teachers responded in the affirmative, 12 indicated that they experienced challenges and three did not give any indication. Of those who responded in the affirmative, T 20 explicitly expressed that, “Yes. Learners know how to care for their environment and how to recycle.” T 36 was rather sceptical, “Yes. Although results will never be immediately been seen.”

Four teachers (T 3, T4, T 28, T 31) indicated being successful but they also raised challenges that they face. Their responses range from the unavailability of teaching materials, as expressed by T3: “Yes. Sometimes it’s not easy to bring objects to class, but I compensate that by using pictures.” T4 also shared similar sentiments, “Yes. Finding of the type of item /material you need for a certain lesson e.g. types of soil”. T 28’s challenge was expressed as having to do with the environment in which the learners find themselves and the difficulty for them to comprehend environmental issues, “Yes. I have challenges as well; firstly, the environment some of our learners find themselves in is sometimes a challenge in itself and it’s sometimes difficult for them to comprehend our environmental issues that we deal with in Namibia.” I assume the teacher was referring to the informal settlements in which some learners live. The teacher didn’t seem to connect physical environment with social and political aspects of sustainable development.

Similarly, T 31 narrated that, “No. I feel not enough emphasis is put on the concept [of sustainable development]. Teaching materials/content included on concepts very limited. Learners are actually not aware of the term: sustainable development.” (T31).

The teachers (T5, T10, T11, T13, T27, T30, T34, T35, T39, T41, T43) who expressed their methods of inclusion as unsuccessful drew attention to varying challenges. Some challenges raised were about the nature of the curriculum; its inflexible nature,

No. Not fully successful, this is because our curriculum is not flexible, meaning, it does not provide for teachers to make vital changes to the policies that guide us. Inclusion is supposed to depend on what cases I experience in the classroom. At the end of the day I have to use the same assessment documents for learners of different abilities (T5).

T13 and T 34 expressed that the curriculum is overloaded, “No. A lot of work has to be covered in English and it’s a subject many learners struggle with due to poor reading and writing skills, so finding the time to incorporate more content can be difficult. Also finding suitable resources can be challenging.” (T13). T 34 similarly expressed that going through the curriculum, given the nature of learners’ learning abilities is challenging: “No. Learners struggle to master the English competencies; therefore, you cannot even go across the curriculum.”

Four teachers (T 30, T 35, T 39, T 43) ascribe their challenges in incorporating ESD exclusively to learners’ comprehension. Their challenges range from language comprehension as pointed out by T 43 and T 39, “No. Learners don’t have understanding of what is happening. You need time to exercise it always” (T 43); while T35 expressed that learners at this age are still young to comprehend environmental issues: “No. Kids at this age are still so young to understand why we introduce certain subjects into another. With bigger kids it will be more successful”.

Another challenge noted by one teacher was the careless attitude of people. T 11 commented that the environmental risks have been identified but people do not care: “No. People have identified the risk and challenge we face e.g. soil erosion, overgrazing, soil degradation, deforestation etc. and people do not care for and managing our natural resources in a sustainable way, so that our future generations can use it.”

4.5 Conclusion

This chapter presented the data that was generated for this case study. The data was generated from various data sources: sampled documents, questionnaires and interviews with teachers and key informants. The chapter commenced by giving the history of Namibia’s curriculum development from 1990-2018, foregrounding links between English Language teaching and

ESD, and identifying relevant social and cultural entities over the years. The presentation then focused on factors influencing teachers' agency as curriculum practitioners: an enabling policy environment; teacher training and continuous professional development; teachers' motivation for practising ESD; teachers' own passion; their conceptual understanding and supportive networks; and the potential for Senior Primary English as a catalyst for Namibia's SD future. Finally, the chapter focused on the strategies in which teachers implement ESD. The insights gained from analysing this data will be discussed in Chapter 5 which follows.

CHAPTER 5

DISCUSSION OF FINDINGS

5.1 Introduction

This chapter discusses insights on the emergence of ESD in Senior Primary English teaching in the Khomas Region. The chapter advances the data presented in Chapter 4 with the conceptual and theoretical insights highlighted in Chapter 2, and in line with the research methodology presented in Chapter 3.

The discussion is presented in two sections. The first section (5.2 The ‘parts’ and ‘people’) gives a descriptive account of ESD development in the Senior Primary English curriculum in the form of morphogenetic cycles (structural, cultural and agential). This is achieved through Analytical Statements 1 and 2 (see below) which reveal the historical background (the events, structures, mechanisms and properties) that conditioned ESD development from 1990 to 2018. Analytical Statement 3 reveals how the structural and cultural structures, mechanisms and properties influenced the agency of Senior Primary English Language teachers in the Khomas Region.

The discussion of these statements in section 5.2 seeks to answer the study’s sub-questions (a) What social and cultural structures, mechanisms and properties conditioned the development ESD in Namibia from 1990 to 2018?, and (b) What social and cultural structures, mechanisms and properties condition how current Senior Primary English Language Teachers in the Khomas Region of Namibia come to know about and integrate ESD (or not) in their teaching practice? The analytical statements for this phase of the discussion are as follows:

- 1) The emergence of ESD in Namibia (from 1990-2018) was conditioned by the interaction of global ESD agendas and post-independence policy and institutional reforms.
- 2) The culture of ESD implementation (1990-2018) was conditioned by the interaction of global trends in education with pre-independence policy and practice.
- 3) The agency of Senior Primary English teachers to implement ESD in their teaching practice was conditioned by the interaction of global and national structures, mechanisms and properties.

The second section, *5.3 The morphogenetics of ESD implementation in the SP English curriculum in the Khomas Region*, aims at answering the study's sub-question (c): What is the current status of ESD implementation in Senior Primary English Language teaching in the Khomas Region? As a basic morphogenetic characteristic, the temporal division of parts and people discussed in section 5.2 was done for analytical purposes. Section 5.3 unites the parts and people to present an informed description on the current status of ESD implementation in Senior Primary English curriculum. Analytical Statement 4 was formulated for this phase of the discussion as follows:

- 4) The 'parts' and 'people' playing out in ESD implementation in the SP English curriculum are poorly synchronised.

Figure 5.1 is a visual summary of the morphogenetic account of ESD emergence in the Khomas Region from 1990-2018. On the left, the figure highlights structures, events and mechanisms that conditioned the emergence of the policy as described in subsequent sections, and on the right are properties (SEPs, PEPs and CEPs) revealed at each phase of the analysis. The sections that follow will give a fuller discussion of this morphogenetic cycle.

In Figure 5.1, T₁ (structural conditioning) was the initial period of this study (1990), T₂-T₃ (social interaction) was the period in-between, until I completed analysing the data in late 2018. T₄ represents the status of ESD emergence (morphogenesis or morphostasis) at the end of 2018, and informs the recommendations and conclusions made in Chapter 6.

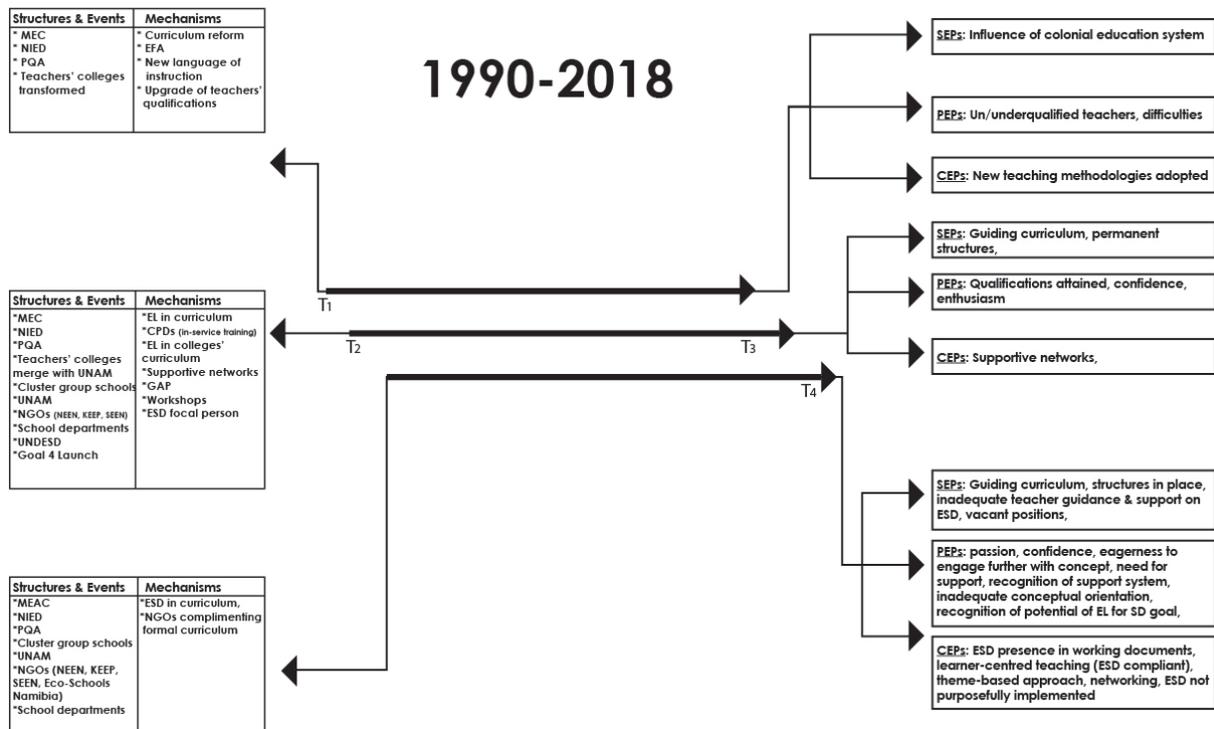


Figure 3: A morphogenetic account of ESD emergence in the Khomas Region, highlighting structures, events, mechanisms, SEPs, CEPs and PEPs from T1 to T4

5.2 The ‘parts’ and ‘people’

I applied *analytical dualism* to distinguish between the ‘parts’ and the ‘people’ involved in the implementation of ESD in the Senior Primary English curriculum. According to Archer (1995), this analytical approach enables exploration of linkages between structure and agency with their own autonomous properties while rejecting any form of conflation. The parts – that is, structure and culture – were each explored to establish how each relates to the people – that is, agency. My exploration of the parts and the people followed a structural–cultural–agential interplay as presented in sections 5.2.1 to 5.2.3, investigating the emergence of ESD in the Senior Primary English curriculum between 1990 and 2018.

5.2.1 Analytical Statement 1: The emergence of ESD in Namibia (from 1990-2018) was influenced by global ESD agendas interacting with post-independence policy and institutional reforms

The discussion of this statement was framed by the morphogenetic analysis of the data presented in Chapter 4. This was specifically derived from the data on Namibia's affiliation to international conventions and agreements, and the interaction of various institutions involved with ESD implementation (*see 4.2*). I foreground the structures, mechanisms and properties that conditioned the development of ESD in Namibia over the given period. In this morphogenetic cycle, T₁ refers to the initial period under investigation, 1990. T₂-T₃ is the period of structural elaboration in which the structural entity conditioned the cultural entity in which teachers as agents practise and have a causal effect on what is observed at T₄ (elaboration or reproduction of the conditions at T₁).

5.2.1.1 Structures, mechanisms and properties at T₁ that conditioned future ESD development

It is important to take note that any T₁ is pre-conditioned by actions of former structural events and interactions (morphogenetic cycles) and, hence, the events of previous agents influence current structures. The conditions prevalent at T₁ (1990) on Namibia's ESD development are wide-ranging: political, economic and social.

As discussed in Chapter 2, Namibia had just gained independence in 1990, which is the T₁ of this study. For a country emerging from a colonial era dominated by racial segregation which had an immense impact on the education system, much work lay ahead for the new government. As discussed in Chapter 4 (*see 4.2.1 Social and cultural factors influencing ESD development 1990-1993*) regarding the education system, 1990 was a year of restructuring to pave a way for the desired autonomy. The new government embarked upon the said reform processes elaborated in Chapter 4. The data presented in Chapter 4 reveals that various structural emergent properties (SEPs) contributed to conditioning the development of a reformed education system at T₁. The structural conditioning at T₁ in Figure 5.1 was essentially conditioned by events emanating from the events and structures of the former education system.

The structures prevalent at T₁ were wide-ranging, geared to restructuring the education system and developing a new curriculum which would reflect the goals of the Education for All policy

(access, equity, quality and democracy) (MEC, 1993). As described in Chapter 2 (*see section 2.4.2.1 Namibia's response to Education for Sustainable Development*), a new Namibian Ministry of Education and Culture was formed which then established NIED (the National Institute for Educational Development) as an institution for curriculum development. NIED was mandated to develop the National Curriculum for Basic Education as well as to develop teaching and learning materials which would be used by the teachers practising in the new era. The Programmes and Quality Assurance division under the then Namibian Ministry of Basic Education and Culture was another structure that would work directly with capacitating teachers for the new curriculum. Each of these structures had its own structural emergent properties which were vested in the interest of realising this national set goal.

Another extant structure at T₁ was the teachers' colleges. The inherited institutions were marred by inequities in terms of structures and materials. The need to establish new colleges and to change the teacher training curricular became an immediate priority as it became evident that more than half of the teachers at the time were either unqualified or underqualified (O' Sullivan, 2002).

5.2.1.2 ESD development at T₂-T₃

In the structural morphogenetic cycle represented in Figure 5.2, T₂-T₃ is the period of structural interaction in which structural entities interact with the cultural entities to condition agency. As the curriculum developed over the phases described in Chapter 4, so did new structures, mechanisms and properties emerge to condition people's agency.

Having a reformed curriculum is a structure on its own with particular emergent powers that condition the culture in which teachers practise as agents. Various structural mechanisms conditioned the emergence of the new curriculum over the years (MEC, 1993; MoE, 2008; MEAC, 2015). These were necessary mechanisms employed to ensure that the curriculum was successfully implemented.

NIED ensured firstly that teachers were provided with the necessary documents to guide their practice. The curriculum and supporting documents such as the subjects' syllabi as well as the subject policy were widely distributed, and teachers were workshopped on how they would use the documents (MEC, 1993). These produced an emergent property by enabling teachers as

groups and individuals to be able to develop their own working documents: internal subject policies, schemes of work and lesson plans respectively.

The training of teachers through a new training curriculum was one mechanism that empowered teachers with the necessary knowledge and skills to meet the curriculum needs (MEC, 1993). As indicated in Chapter 4 (*see section 4.2.5.4 EE/ESD implementation*), it was at the teachers' colleges where incorporating EE across the curriculum proved efficacious. The teachers doing the BETD INSET programme were also introduced to the concept of Environmental Learning as a cross-curricular issue through their in-service training as their training programme followed the pre-service programme.

The merger of UNAM with the teachers' colleges in 2010 was another mechanism aimed at conditioning teachers' agency. The data revealed that teachers from both then colleges and UNAM received some training on how to incorporate ESD in their practice showing that these institutions have incorporated ESD in their curricula. Some other teachers' account of having received training through Continuous Professional Development as a structure revealed that there were also mechanisms at the level of Programmes and Quality Assurance to condition teachers' EE implementation abilities. The knowledge and skills gained through these training structures carried their own emergent properties which had an impact on the culture of teachers' practice discussed in section 5.2.2 below. The awarding of qualifications on completion of the various programmes also had its own emergent powers which, like the knowledge and skills, also conditioned teachers' agency.

5.2.2 Analytical Statement 2: The culture of ESD implementation (1990-2018) was conditioned by the interaction of global trends in education with pre-independence policy and practice.

Like the previous statement that presented the *structural* entity as one of the 'parts', this section will similarly discuss the *cultural* entity as the other part that interacts with agency. The examination of the cultural entity adjoins the anterior cycle (of structures) discussed above and is then succeeded by the posterior cycle (of agency) to be discussed in section 5.2.3 below. In the morphogenetic cycle in Figure 5.1, T1 is the period for cultural conditioning (1990) which initiates structures and mechanisms for T2 – T3 as the period of cultural elaboration in which

cultural structures interacted with structure and agency to shape what is observed at T4 (morphogenesis or morphostasis).

5.2.2.1 The culture of ESD implementation at T1 (1990)

As a basic critical realist assertion, T1 is always pre-conditioned by actions of former cultural events and interactions. Hence, actions of previous agents influence the current culture, that is, the normalised ways of doing things. As indicated in Chapter 4 (*see section 4.2.5.4 EE/ESD implementation*), ESD was carried in content subjects such as Life Science and Geography (Kanyimba, 2002). Reviewed literature and analysed documents also reveal that there were external organisations which collaborated with the then Namibian Ministry of Arts and Culture to boost ESD contents in those subjects as shown in Chapter 2 (*see section 2.4.2.1 Namibia's response to Education for Sustainable Development*).

Data reveals that some participants' agency for ESD implementation was indeed conditioned by structures and mechanisms from pre-independence era. TI3 explained how she was already incorporating ESD in her practice although it was not present in the curriculum documents (see 4.5.3) which she finds easy because she's passionate about the environment. Fien (1993) observed that ESD was not explicit in English language teaching. Elements of ESD emerged in the Senior Primary English Language curriculum as Environmental Learning only after its first revision as discussed in section 4.2.2.3 above.

The prevailing culture at T1 was influenced by the results of past actions as many aspects of ESD have been in existence since the South West African (Namibia) curriculum before independence (Kanyimba, 2002). ESD concepts were covered in subjects like General Science and were known as Environmental Education. Subsequently, coming from a colonial era and a racially segregated education system, the educational culture was highly centralised and authoritative. This was evidenced by TI5 who's ESD agency was influenced by his interest in Science:

“I have a particular interest in Science *per se*, and when you talk about environment you also talk about science. I have been a science teacher all my life and through that, through science you will need to do practical, and definitely as you do practical, you have to touch on issues of the environment, and you will also touch on why it is important to have a sustainable education or a sustainable environmental context, and that is how I

have come in touch with ESD, through teaching science.” TI 5 is a qualified English Language teacher who was introduced to ESD through his interest in Science which is more explicit with regards to ESD.

The teaching was dominated by rote learning which regarded teachers as masters of knowledge, although their practise was highly book-bound and did not incorporate learners’ perspectives, MEC (1993).

As indicated in section 1.3, the Constitution of the Republic of Namibia incorporates environment and development. Although ESD did not appear as a concept then, the Constitution concerned itself with peoples’ welfare and sustainable use of resources for present and future generations. As the Supreme Law of Namibia, the Constitution had, and continues to influence Namibian citizens’ perspectives on sustainable development and the practical choices they make in that regard.

5.2.2.2 Structures, mechanisms and properties conditioning the culture of ESD implementation at T2-T3

The introduction of a new curriculum had a direct impact on the culture in which teachers practice. Teachers had to get habituated to a decolonised curriculum which embraced the educational goals inherent in Education for All, and practising learner-centredness as the teaching method (MEC, 1993). They also had to adapt to a cross-curricular curriculum which included Environmental Learning (*see section 4.2.2.3, The Enviroteach project*). NIED continuously conditioned the culture of teachers’ practice by developing and distributing materials necessary to enable teachers’ agency as per curriculum requirements MEC (1993).

The establishment of teacher colleges developed teachers’ agency by training them how to teach the new curriculum using learner-centred methods in contrast to the methodology they were accustomed to in the previous system, and also on implementing ESD in their practice. The learner-centred approach aligns with the ESD learning objectives (UNESCO, 2012) and it promotes the attainment of key competencies in sustainability (Wiek et al.,2011). Evidence from the data (T20, T35, TI 7, TI 9) reveals that the colleges did indeed condition teachers’ ESD knowledge. The in-service training of teachers through the BETD INSET programme which aimed at improving practising teachers’ skills was a milestone mechanism that conditioned the culture of teachers’ practice. Teachers were also awarded with a teaching diploma as discussed

in section 4.3.3.1. The qualifications had their own value and affected the teachers positively by bringing them better incentives and maximising their chances for better life opportunities. For example, I was trained at one of these colleges and graduated with a teaching diploma which served as a stepping stone to my career development.

The merger of teachers' colleges with UNAM provided both a structure and a mechanism to stimulate teachers' agency in implementing ESD in their practice. This was evident in the data presented in Chapter 4.2.4.2, where some teachers (T15, T16, T19, T24, TI 6, TI 9, TI 10) indicated that they had been introduced to EE's cross-curricula nature through their training at UNAM. The awarding of teachers with a Bachelors' Degree by UNAM, as opposed to the teaching diploma awarded by the then teachers' colleges was an emergent property with a causal effect on teachers' self-confidence as some have confidently claimed being comfortable with their practice (*see section 4.3.4.1 Teacher confidence*).

The culture of schools' subject departments, of which teachers are members, is another structure that continuously conditioned teachers' agency. Teachers in a school work as a team guided by the national curriculum documents, and the internal policy document, which is collaboratively developed to guide teachers' own working documents: their schemes of work and lessons. The hierarchy within the schools' departments puts subject heads and HODs in positions of power to seek subject-related assistance (Namibia. Ministry of Education, 2008). The data presented in Chapter 4 reveals that HODs are the 'go-to-people' within this hierarchy (TI 6, TI 8, D 3). Data from the National Subject Policy Guide for English Grades 5-7 [D3] puts the subject head on a pedestal regarding seeking subject assistance, but this is not consistent with the actual situation as will be discussed later in sub-section 5.3.2.

The set-up of school departments can be a great opportunity for developing a favourable culture of ESD implementation. However, this depends on how specific departments are coordinated. If the members of a given department work collaboratively and share best practices, and if any of them is acquainted with ESD as a concept and how ESD is to be implemented, then the teachers in such a department have a good chance to successfully implement ESD in their practice. Contrary to this, those departments whose members don't work collaboratively have a lower chance of implementing ESD successfully.

Cluster school groups have stood as support structures that have continuously mediated the processes of development of teaching materials, share best practices and develop common working documents and activities, including examinations. This cluster-based practice influenced the teaching culture as the uniformity compels teachers to use the same materials and work with common ideas and approaches. The impact of the clustering was evident from TI 5 who stated: “Yet we have an opportunity of working in cluster groups which, depending on management of that cluster, can be used to facilitate that question [of ESD]”. Thus, if effectively implemented, clusters have a positive influence on the culture of teachers’ practice, which in turn (albeit indirectly over a long time) can have a positive influence on sustainable development. As previously stated in this present study’s Chapter 2 (*see section 2.4.3.3 Building capacity of Senior Primary English teachers in Namibia*), the cluster grouping makes it easy for teachers to meet often and share best practices. This makes clustering an effective in-service capacity development mechanism for orientating Senior Primary English teachers to new developments and national priorities, including ESD (Namibia. Ministry of Education, 2008; Dittmar et al., 2002). Clusters as structures are vested with CEPs which have an effect on the individual teachers’ practice and the knowledge that is imparted upon the learners.

The data also indicated that the existence of the Programmes and Quality Assurance Directorate and various teachers’ resource centres run by the Namibian Ministry of Education are also structures that continuously conditioned the culture of ESD implementation from T2 to T3. The conditioning by the Programmes and Quality Assurance Directorate is evidenced by mechanisms such as the CPDs which they organise to equip teachers to respond to curriculum developments, as was the case when Curriculum 2015 was introduced (T 10, T 42, TI 12). Teachers’ resource centres are highlighted in The National Subject Policy Guide for English Grades 4-12 [D3] as resource places where teachers can seek information to support their practice. Data from this case study did not, however, reveal anything to substantiate this policy claim regarding ESD implementation in the Senior Primary English Language curriculum.

The structures and mechanisms discussed in this section were essentially initiated by the Namibian Ministry of Education, Arts and Culture over the years. They (structures and mechanisms), in turn, were seen to condition the culture of English Language teachers’ ESD implementation. The structures and mechanisms discussed here have held their own emergent

powers which had influenced teachers' agency, whereas teachers also possess their own emergent properties.

5.2.2.3 The culture of ESD implementation at T4 (2018)

The culture of ESD implementation at T4 is conditioned by the several structures and mechanisms in place (formal and non-formal). As the data has revealed, the curriculum and its support documents are clear on ESD as a cross-curricular aspect and data from teachers' working documents (namely internal subject policy guides, schemes of work and lesson plans) have verified this. As previously described (*see section 4.4 Teachers' strategies to implement ESD in their practice*), the majority of the SP English teacher's questionnaires indicated that they incorporated an environmental or sustainability focus in their teaching. For instance, T39 expressed that: "According to the thematic approach, it is easy to incorporate it in our teaching by giving a listening comprehension, oral or continuous writing on the topic." T5 indicated that: "Lessons as structured throughout the term are based on themes, these themes include five animals and the environment, care and conservation just to name a few. All reading, writing, speaking and listening materials should be done according to these themes." On the other hand, the minority, only five teachers, indicated that they did not incorporate an environmental or sustainability focus in their teaching and one teacher did not respond to that question.

Analysis of the sampled English teachers' working documents revealed aspects of ESD in their practice. An ESD focus was detected across all types of analysed teachers' documents, that is, internal subject policy guides, schemes of work and planned lessons. This emergent property in teachers' agency suggests that a culture of ESD implementation is developing in Namibia, and that English Language teaching does indeed have potential to foster the country's Sustainable Development Goals, as articulated across the successive National Development Plans, Vision 2030 and the Harambee Prosperity Plan, as aligned to international agendas and ideologies.

The various non-governmental organisations such as NEEN and Namibia Eco-schools' initiative are also commendable in this regard as they advocate for the inclusion of environmental aspects as part of learning across the curriculum. For example, NEEN (*see Chapter 4 section 4.2.5.5 Eco-schools Namibia initiative*) reflects the potential of a whole-school approach (UNESCO, 2014a & 2014b, Wals & Benovat 2017), to environmental management and learning that can

influence learners' and teachers' life choices, including English teachers. The presence of these various non-governmental organisations may thus be interpreted as bringing about change (morphogenesis) for the drive of incorporating environmental issues as part of school-based learning and at the same time advocating for the sustainable development of the nation.

As discussed in Chapter 4, NEEN has remained an emergent structure through which teachers network and share best practices such as the establishment of environmental clubs which the curriculum encourages. It has also exposed teachers to best practices emerging from other contexts by its involvement in regional networks such as the increasing sponsorship of teachers' attendance at the annual EEASA conferences (Namibia's EEASA 2018 report 2018) [D 6]. The existence of the environmental clubs as co-curricular interventions, and the activities that they engage in support the attainment of the broad curriculum goals and they might also serve to tacitly re-orientate the culture of schools, including English language teaching, towards sustainability as noted above.

This section was the final examination of the 'parts'. This cultural morphogenetic cycle, which was adjoined to the posterior structural morphogenetic cycle, will in the following section be joined with the anterior cycle (agential) to examine the emergence of the 'parts' and 'people' playing out in ESD implementation in the English curriculum in the Khomas Region of Namibia.

5.2.3 Analytical Statement 3: The agency of Senior Primary English teachers to implement ESD in their teaching practice was conditioned by the interaction of global and national structures, mechanisms and properties.

5.2.3.1 Teacher agency in relation to ESD implementation at T1 (1990)

As discussed in section 5.2.1 above, the country had just gained independence in 1990, and restructuring the education system was a top priority. The prevailing situation at T1 regarding teachers was that the system was dominated by unqualified and underqualified teachers as discussed in 5.2.1.1 (MEC, 1993; O'Sullivan, 2002), which necessitated the various training mechanisms. Teachers' practice was strongly influenced by rote-learning and focused on textbook content as described in section 5.2.2.2 (MEC, 1993; O'Sullivan, 2002; Anyolo et al., 2018). Most teachers were also not conversant with English as the adopted language of teaching and learning. Even some English Language teachers struggled with the adopted language, especially in the rural settings (O'Sullivan, 2002; MEC, 1993). From my own experience while

growing up, I similarly encountered English teachers who taught us English in the local language. Their focus was mostly limited to building vocabulary.

Although some of this study's data reveals that ESD became a cross-curricular issue only after the first curriculum revision (*see 4.2.2.3, The Enviroteach project*), it also reveals that one participant was already incorporating ESD topics in her practice before independence (*see 4.3.4, Teachers' own passion*). She noted that ESD was only featured in the curriculum after independence, but her personal agency was already geared towards environmental sustainability then. This is a demonstration of the teacher's passion for the environment and its influence on her professional agency. She was not just teaching English, but equipping students with sustainability content and directly addressing Namibia's sustainable development needs as outlined in the national policies (*see 2.3.1, Sustainable Development as a Namibian priority*).

5.2.3.2 The structures, mechanisms and properties conditioning teacher agency for ESD implementation at T2-T3

The case study data revealed that teachers' agency in implementing ESD in their classrooms was conditioned at T2-T3 by various structural and cultural structures, mechanisms properties and powers as described above in 5.2.1 and 5.2.2. The introduction of the first post-independence school curriculum and its continuous development since 1990 has incessantly conditioned teachers' agency. Teachers from the previous education system had to adapt to the new culture of learner-centred and development-oriented teaching practice, and even younger teachers who started practising in the new system showed emergent properties conditioned by the culture of the old system in which they had been educated.

The post-independence curriculum revealed emergent powers that directly conditioned teachers' agency. The curriculum acted as a mediating tool, both empowering and sometimes constraining teachers' agency. NIED, as a permanent structure, continuously conditioned teachers' agency by developing and distributing curriculum materials necessary to improve teachers' agency (MEC, 1993; O'Sullivan, 2002). Examples of agentive responses envisioned for teachers by NIED include the use of the learner-centred approach to deliver curriculum contents (as outlined in the National Curriculum for Basic Education Basic [D1], continuous teacher professional development so that teachers could keep up-to-date with changing trends as specified in The National Subject Policy Guide for English Grades 4-12 [D3].

The introduction of teachers' training colleges and the revision of teachers' training curricula had a positive impact on teachers' agency. The colleges' curriculum was aligned to the new school curriculum. It was at these colleges that some teachers (T 20, T 35, TI 7, TI 9) were introduced to EE as a cross-curricular issue, which, by T4 in 2018, was fully incorporated in the school curriculum. Teachers were also introduced to learner-centred education methods which are associated with developing a whole child (Wiek et al., 2011) and recommended as ESD teaching methods. This mechanism aimed at empowering teachers with the necessary skills and knowledge to implement the curriculum. As previously stated, (see section 4.3.2, Enabling policy environment), in order to accomplish the above-mentioned, teachers must be fully acquainted and competent with teaching according to a cross-curricular approach, and if they are not familiar with the approach, or have challenges in employing it, they are advised to seek professional guidance as suggested in The National Subject Policy Guide for English Grades 5-12 [D3] and similarly encouraged by O' Sullivan (2002), UNESCO (2009), Kanyimba et al. (2014), Tshiningayamwe (2011; 2018), and Anyolo et al., (2018).

Similarly, SEEN (2003) (see section 4.2.3.1 Support Environmental Education issues in Namibia (SEEN) projects 2001 – 2010), recommended that English teachers select themes of significance to Namibia and suggested that learning would be improved if learners were given the chance to learn and experience outside classrooms (Lee 1997, Kethloilwe, 2007b; 2010, Wiek et al., 2011) This is further reinforced by The National Subject Policy Guide for English Grades 1-12 [D3] which states that: "The subject teacher should facilitate teaching and learning both inside and outside the classroom in order for the learners to acquire the necessary knowledge and skills" (p. 7).

Several teachers indicated that the colleges have indeed influenced their agency to implementing ESD, such as T 20 who indicated "Yes. The training was offered when I was at the college, it was a three-year course" and T 35 who also stated: "Yes. At college (Windhoek College of Education), known as the teacher college".

Similarly, teachers who received in-service training through the BETD INSET programme (see section 4.2.1.2 The Basic Education Teachers' Diploma) were also conditioned to respond to the needs of the prevailing curriculum. As discussed in Chapter 4 (see section 4.2.2.1 Basic Education Teachers' Diploma (INSET) programme) the in-service teachers' programme replicated the pre-service teachers' curriculum with a distinction only on the delivery mode. Both

programmes had emergent properties directly conditioning teachers' agency and interacting with teachers' own emergent properties in implementing ESD in their practice.

The data reveals that the merger of UNAM with teachers' colleges provided a structure that continuously conditioned teacher agency for implementing ESD in their practice. This was evident in the responses of teachers T15, T16, T19, T24, TI 6, TI 9, and TI 10, as described in Chapter 4 (see section 4.2.4.2, Teachers' colleges merge with UNAM). UNAM, as a structure, devised mechanisms whose emergent properties intersected with teachers' PEPs. This in turn had a causal effect on the culture of their teaching practice.

The Continuous Professional Development offered by the Programmes and Quality Assurance Directorate also had an efficacious effect on many teachers in the Khomas region, although the interventions were not experienced in the same way by all teachers. KI 1 emphasised this when he claimed that the Programmes and Quality Assurance Directorate rolls out workshops and school visits to assist teachers. KI 1's claim was partially evidenced (T 10, T 18, T 38, T 42, TI 12) regarding the issue of workshops: teachers have indicated that they came to know of Environmental Learning as a cross-curricular issue through training offered by the Programmes and Quality Assurance sub-division. More specifically, teachers T 18 and T 10 confidently referred to the workshop training they received at the introduction of Curriculum 2015. None of the teachers, however, referred to any regular experience of school visits by the Department. Several teachers indicated that they have *never* received any sort of support from Programmes and Quality Assurance. TI 6 explained that he has been teaching for three years but has never been visited by Programmes and Quality Assurance people; TI 2 was last visited three years ago. Others identified that the current vacancy of a regional subject advisor was a constraining factor for teachers receiving this kind of subject assistance. As the researcher, I was also aware that the positions of both national and regional subject advisor for English Language were vacant when this study's data was being collected. This was the reason why I could not secure an interview with someone responsible for the English Language subject at national level and at regional level, KI had to accommodate my enquiry on this topic. It appears therefore, that ESD implementation in Senior Primary English teaching from T2-T3 existed primarily as a policy *intention* or teachers' enthusiasm than as a concretely implemented phenomenon.

Data indicates that initiatives by stakeholders outside the Namibian Ministry of Education (see sections 4.3.3.2 and 4.3.7.3), when well-orchestrated, have potential to influence teachers' ESD

knowledge and implementation. This was also highlighted by TI 1 who identified Khomas Environmental Education Programme as a structure that conditioned her ESD knowledge saying, “There was a moment when we went on a tour to KEEP, Giraffe KEEP. We actually went with the learners and there we learnt about different contents about the environment actually” (TI 1). Similarly, Kethloilwe (2007b), reported how other stakeholders outside the Botswana Ministry of Education influenced teachers’ ESD knowledge and implementation thereof by offering teachers workshops.

The data reveals that Programmes and Quality Assurance support exists theoretically, as is evident in documents, but due to various identified constraints (such as financial constraints), “the support is not readily available” (TI 5). The teachers highlighted the clustering system as a potential alternative structure to mediate the desired support for the emergence of ESD in English teachers’ practice (Dittmar et al., 2002). The data revealed that cluster groups can successfully mediate teachers’ continuous professional development as indicated by TI 7 when he specified that clustering has stood as a structure for sharing materials and best practices (see section 4.3.3.3). This resonates with the contents of The National Subject Policy Guide for English Grades 1-12 [D3] which encourages continuous professional development and participation in cluster subject groups. However, TI 5, referring to this structure, cautioned that its success is dependent by how a specific cluster is managed (*see section 4.3.4.3 Teachers lacking assistance*).

One teacher asserted that what is learnt regarding ESD during pre-service teacher education is not what they are confronted with when they finally join the education system as agents. TI 10 who joined the profession in 2018 expressed the view that there is a mismatch between the training offered by the University of Namibia and the ‘on the ground’ educational practice systems. As a new teacher, TI 10 did not reveal any evidence of getting trained by the Programmes and Quality Assurance department as indicated by KI 1 (see section 4.3.3, Teachers’ Training and continuous professional development).

Levels of teacher-preparedness to incorporate ESD in their lesson planning were varied. A few expressed their confidence in incorporating ESD in their English teaching practice. This assertion was made by two teachers (T28, T30), who indicated that, although they have never received formal training, incorporating ESD should not be a challenge for an English teacher. Contrary to the above, several teachers referred to a range of challenges and ambiguities

confronting them in their pursuit to implement ESD. These range from lack of teaching materials (T3, T4, T31), learners' ability to comprehend both the English language and Environmental issues (T30, T 35, T 39, T 43) and lack of assistance from Programmes and Quality Assurance as discussed in 4.3.3.3 above. Others expressed the need for continuous assurance or affirmation that they are doing things correctly (TI7, TI 12) which is also required from Programmes and Quality Assurance through the subject advisor.

This resonates with recent ESD implementation-related studies (UNESCO, 2009; 2014a, McKeown, 2014) who also advocate for continuous assurance that teachers are doing their job properly and guide them where they lack. Kethloilwe (2007b) also echoed the lack of teaching materials as noted above which often constrains teachers' agency in implementing ESD in their practice.

5.2.3.3 Teacher agency in relation to ESD implementation at T4 (2018)

As narrated in the previous sub-section, a wide range of interactions constrained and enabled teachers' agency to implement ESD in their English Language teaching practice from independence (1990) to 2018. Having discussed teacher agency in response to the social and cultural elaboration from T2-T3, this section now discusses the *status quo* at T4 in 2018 at the end of this study's data generation period. T4 shows partial elaboration and partial reproduction of the teachers' agency in relation to ESD implementation.

At T4, data revealed that participants generally have varying conceptual understandings of both Environmental Learning and ESD, and their cross-curricular nature. Quite a number of participants demonstrated adequate understanding of the concept of Environmental Learning and its cross-curricular nature. A considerable number of participants seemed to understand the concept of ESD (as evidenced in the questionnaires) but this evidence was contrasted by the data gathered from the interviews. Generally, even some of those teachers who seemed to understand the concepts of ESD and environmental learning in their questionnaire responses, did not seem to understand the practical nature of ESD when asked about it in more detail during the interviews. Data also revealed that participants perceive that the Senior Primary English Language subject has potential for carrying forward Namibia's sustainable development goal (see section 4.3.8

Teachers' perspectives on the potential of Senior Primary English as a catalyst for Namibia's sustainable future) above.

An element of eagerness became apparent in the data as teachers revealed their positive reception of the ESD concept. Teachers showed enthusiasm to engage further with the concept of ESD. This was especially evident in the interviews when participants were asked if they had anything else to say. Most of them gave an indication of wanting more engagement (T 13, T 24, TI1, TI 5, TI 6, TI 8), wanting to know more about the concept and how to best implement it in their practice. For example: "A proper training on how: to implement it, on how to use it as a subject to make the kids understand it and as well as myself so that I can better implement it" (TI 8); and "We need somewhere to start off [...], because I can see that the future depends on the ESD, like on the discussions about ESD and people need to gain more understanding about this. So, we just need somewhere to start off ..." (TI 10) and T 24, "Great importance, more ESD should be emphasised in workshops, seminars, meetings, teacher training colleges.". The onus is now on the Namibian Ministry of Education, Arts and Culture to devise appropriate mechanisms to preserve these teachers' eagerness (PEPs) by promoting ESD within teachers' networks such as school English Language departments and cluster school groups. Kethloilwe (2007b) similarly noted that teachers in Botswana were enthusiastic to engage with the concept of ESD in their practice.

In summary, teachers' agency to implement ESD in their English teaching practice has been conditioned in diverse and uneven ways by the 'parts' (structural and cultural entities) that emerged from independence in 1990 to 2018. This will be elaborated under section 5.3 below.

5.3 The morphogenetics of ESD implementation in the Senior Primary English curriculum in the Khomas Region of Namibia

The previous sections focused on the 'parts' and 'people' involved with ESD implementation in the Senior Primary English curriculum in the Khomas Region. I applied *analytical dualism* to examine structure and agency, a process that enabled me to see beyond the empirical layers of ESD implementation in the Khomas Region. The emergence of ESD was seen to have been conditioned by various SEPs (the curriculum, teachers' qualifications, global and national policies), CEPs (ideologies, orientations to ESD, support systems) and PEPs (motivation, values, agency) which are presented in this section.

Analytical statement 4 below was derived from the examination of the parts and the people. The statement is discussed from a morphogenetic perspective to trace the general emergence of ESD in the SP English curriculum.

5.3.1 Analytical statement 4: The ‘parts’ and ‘people’ playing out in ESD implementation in the SP English curriculum are poorly synchronised

As introduced in Section 2.3.2, this separation of structures, mechanisms, properties and powers (the ‘parts’) from people’s agency was necessary for *analytical* purposes, always noting that the separation is artificial because structure and agency are part of the same society (Archer, 1995). As such, the discussion now turns to harmonising the parts and the people so that the research can offer holistic insight into the issue under investigation: the emergence of ESD in the Senior Primary English curriculum in the Khomas Region of Namibia.

The analysis suggests that the ‘parts’ and ‘people’ are out of synchrony. The study’s morphogenetic analysis revealed that both of the ‘parts’ (the structure and culture of ESD implementation) have been elaborated over time, and that the elaboration was mostly due to the conditioning of global trends in ESD and national post-independence trajectories. The same cannot be said, however, for the ‘people’, whose elaboration as ESD agents of change (evident at T4) was more limited. This is normal for morphogenetic processes since structure and agency operate at different time periods: “structure necessarily predates the actions which transform it and that structural elaboration necessarily post-dates those actions” (Archer, 1995, p.15). Additionally, the ‘parts’ and the ‘people’ have their own emergent powers, which lead to elaboration or reproduction. That is why structures can be in place, but human agents resist their conditioning powers. This also resonates with Urenje’s (2018, pers. comm.) observation that ESD implementation in Namibia lags behind as compared to other contexts.

The existence of the Namibian Ministry of Education, Arts and Culture as a structure, with an emergent curriculum in place which illuminates environmental learning as a cross-curricular issue are all examples of SEPs uncovered by this study. Another SEP found by this study was the influence of recently-established structures such as teacher training programmes and clusters for teachers to network and a directorate for empowering teachers in the form of Programmes and

Quality Assurance by the Namibian Ministry of Education, Arts and Culture. These structures and their powers, however, could not be pre-determined because they had to be received by teachers whose agency possesses its own irreducible emergent properties (Archer, 1995).

Keeping in mind that every T1 is preconditioned by events of past generations, it is only proper to accept that those past interactions have an emergent property in relation to the events and actions of current agents, which will also condition the events and actions of generations that follow. This was made evident, for example, by T1 5 who passionately expressed how, from the previous education system, the textbooks were currently useful in developing environmental themes.

T2-T3 was characterised by various structures, mechanisms and emergent properties which continuously conditioned the emergence of ESD. The curriculum has been revised twice for a similar rationale, varying ministers have headed the education system, schools have changed principals and teacher training institutions have been elaborated. All these changes have conditioned teachers' agency because the vested interests of those heading certain structures at any given time influences how teachers practice. And teachers also have their own vested interests which are revealed through the choices that they make.

People's vested interests contribute to the elaboration or reproduction of society because those benefitting seek to maintain the *status quo* while those experiencing frustrations seek structural change (Archer,1995). In this case study, some teachers experienced environmental learning as a burden on the already overloaded curriculum (as similarly reported by Hauschild et al., 2012 and Anyolo et al., 2018) and, for them, English should only focus on language skills and grammar. For other teachers, however, (such as T28 and T 30), their passion for the environment enabled them to include environmental learning in their English Language teaching practice – an indication that cultural elaboration occurred. The passion expressed by the above teachers can be described as a personal emergent property as individual teachers are vested with their own PEPs which drive individuals' practices. They have demonstrated their inherent value for the environment and its sustainability.

The situation at T4 above (see Figure 5.1) has been mostly attributed to a shortage of mechanisms in the cultural domain. The Namibian Ministry of Education, Arts and Culture has established structures (PQA, cluster school groups, subject departments at schools, see section

4.3.7) to orientate the culture of teaching practice to the implementation of ESD; but just like TI 5 indicated in section 4.3.3.3, these structures can only be effective if those occupying the positions have the personal emergent properties to condition the emergence of ESD towards teachers' practice. This is unfortunately not the case in this study as the data reveals that the position of English subject advisor was unoccupied although someone else was filling in for the position, it did not have much effect as he had his own position to cater for.

Anyolo et al. (2018) reasoned that having ESD as a separate subject would cause the curriculum to be overloaded as it is already experienced in that way by some teachers (see 4.4.5, Challenges experienced on inclusion of ESD in practice).

It should be a precondition that Corporate Agents (Archer, 1995) are conversant with the factors influencing the history of curriculum emergence for them to be able to promote the motives to the Primary Agents under their leadership. An example of this is provided by Kethloilwe (2007b) who described how, in Botswana, the Department of Teacher Training and Development ensured that the people tasked with teacher professional development could efficaciously condition teachers' agency to successfully implement ESD in their practice.

It also emerged that there is a need for more Continuous Professional Development to strengthen teachers' agency for implementing environmental learning in their practice. This study's participants demonstrated conceptual understanding of ESD, but they also displayed that they lack practical and purposeful know-how on its implementation. According to UNESCO (2014b, p. 11), the absence of "clearly articulated ESD strategies and policies and lack of ESD educator competencies" is one of the challenges in progressing ESD in schools. Five years later, this case study suggests that these international challenges persist in Namibia. Although KI 1 stressed that there are mechanisms in place for teacher training (especially new teachers), none of the teachers in the study indicated that they had received such training. Teachers have rather identified the *lack* of Continuous Professional Development.

Continuous Professional Development, as provided for in the curriculum documents (such as the National Subject Policy Guide for English Grades 5-12 [D3]), are necessary mechanisms to strengthen teachers' agency to successfully implement ESD as suggested by Kethloilwe (2007b), Anyolo (2015), Tshiningayamwe (2011). Teachers need continuous refreshing of their practice, including remaining up to date with emerging ESD concepts and practices. It appears, therefore,

that even though the teachers were at some point exposed to ESD, the implementation of ESD in their practice remains a challenge. This suggests that the Programmes and Quality Assurance Directorate needs to develop more engagement with the teachers in this regard (Kethloilwe, 2007b; Tshiningayamwe, 2011; Anyolo, 2015).

The periodic vacancy of a subject advisor as stated above appears to have constrained the agency of Senior Primary English teachers in the region. The role of a subject advisor is to assist teachers with implementing the curriculum and supporting them deal with emerging educational trends such as ESD. As the situation dictated, this assistance was lacking, and this has created a vacuum in the orientation to, and implementation of ESD in the Senior Primary English curriculum, and the agency of Senior Primary English Language teachers in this region. I am happy to say that this position has currently been filled.

As revealed in Chapter 4, advisory services do not visit all the schools, there seems to be an exigent need for the Programmes and Quality Assurance Directorate to create more English Advisory Teachers positions so that their work can be shared amongst several people who could then efficiently support all teachers.

The culture of ESD implementation in the Khomas region is evidently confronted by various challenges and inconsistencies. Figure 5.2 presents a stratified view of ESD implementation in the Senior Primary English Language curriculum.

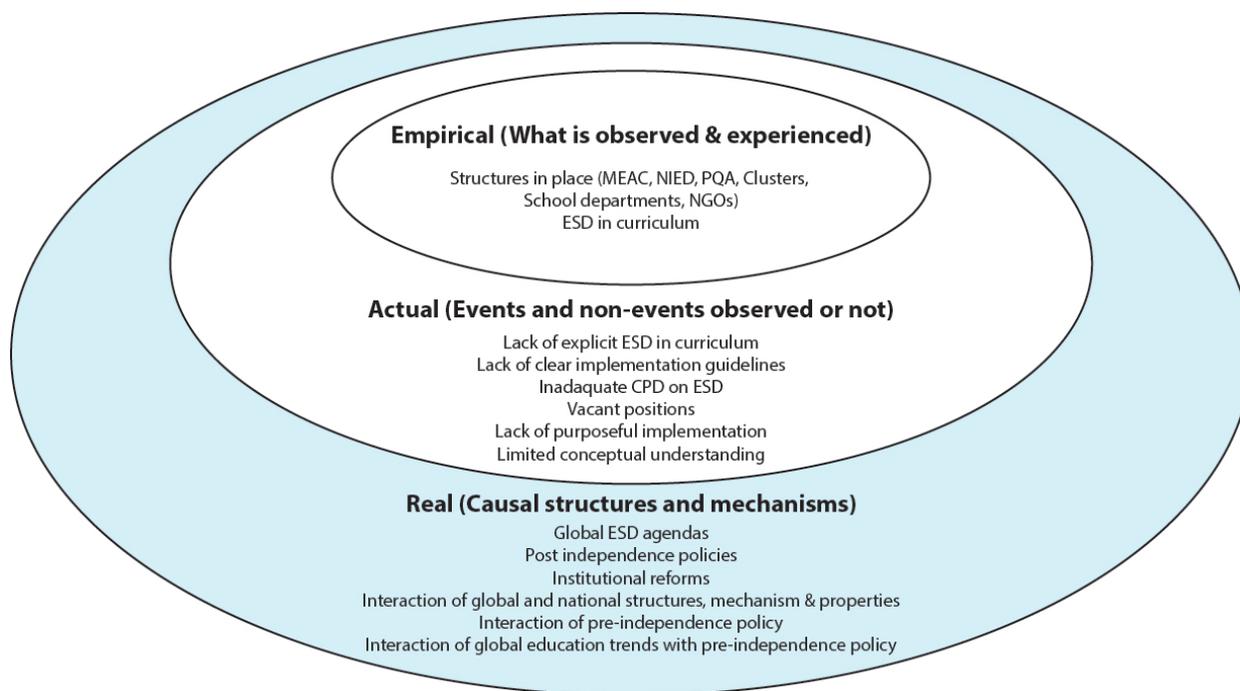


Figure 4: Reality of ESD implementation in the Senior Primary English Language Khomas Region

As discussed in the sections above, it is empirically observable that ESD is being implemented in Senior Primary English Language teaching in the Khomas region; structures such as NIED and the cluster schools system are in place, ESD is depicted in the curriculum documents, and many English teachers report ESD-aligned commitments and practices. However, critical realism’s concern for identifying deeper causal structures and mechanisms in the domain of the Real, directed me to look beyond the empirical. Archer’s analytical dualism and Morphogenetic Theory enabled me to explore the causal mechanisms in the domain of the Real. Being able to separate (if only analytically) the parts from the people, I was able to trace the emergence of structure, culture and agency in relation to ESD implementation in the Senior Primary English curriculum in the Khomas Region of Namibia.

The needs outlined below manifest as constraints to the emergence of ESD in the Senior Primary English curriculum in the Khomas region.

5.3.2 Constraints to the emergence of ESD in the Senior Primary English curriculum

5.3.2.1 Limited professional development opportunities to strengthen teachers' ESD knowledge

The study found that there exists a constraint on opportunities for professional development aimed at strengthening teachers' ESD knowledge and implementation thereof. There is a need for the Namibian Ministry of Education, Arts and Culture to enter into partnerships with other institutions in order for teachers to get acquainted with ESD. Teachers need to be empowered and to stay abreast with global trends in education for them to be enabled to prepare learners for the kind of future that awaits them, and for the learners to be enabled to confront issues with which they will be confronted.

There is currently a lack of tailor-made courses for strengthening practitioners' ESD knowledge. These will be of benefit to teachers, as well as to subject advisors monitoring and guiding teachers' agency. In-service teachers lack professional development opportunities in this regard as suggested by the data presented in section 4.3.3.1 that out of forty-three teachers, only twelve had received some ESD training. Similarly, only seven of twelve teachers who were interviewed (see section 4.3.4.3) indicated that lack of assistance from Advisory Services.

5.3.2.2 Inadequate teachers' guiding materials

There are contradictory perspectives on the scope and adequacy of curriculum documents to guide English teachers' ESD practice. Teachers referred to the lack of relevant teaching materials, or the irrelevance of existing materials (particularly textbooks) which do not contain ESD content. According to TI 2 and TI 5, the lack of relevant ESD teaching materials forces teachers to consider other resources which may only be possible with the teachers who are willing to go an extra mile.

Moreover, TI 5 further commented on a possible irregularity with the selection of textbooks prescribed for use in the Senior Primary phase, implying that quality is being compromised to the expense of curriculum success. This may point to irregularities within the Namibian Ministry of Education Arts and Culture, where Corporate Agents have differing vested interests, leaving the Primary Agents (teachers) at the mercy of this irregularity. As I indicated in section 3.3.3, I was unable to interview the textbook officer at NIED, but I presume that such an interview would have shed valuable light on this matter.

5.3.2.3 ESD not explicit in the curriculum documents

ESD is not explicit in the curriculum documents guiding Senior Primary English Language teachers' agency. Although Simaluba (2018, pers. comm.) advised that curriculum documents give sufficient guidance on cross-curricular issues which include ESD, teachers who are implementers of the said curriculum documents noted various other challenges in addition to the textbooks highlighted above, which hinder successful ESD implementation.

The curriculum document does not guide teachers specifically on incorporating ESD in their lesson planning. There is no universal guideline to ensure that the cross-curricular issues, including environmental learning, are addressed. Anyolo (2015) and Anyolo et al. (2018) suggest that teachers be actively involved in curriculum planning for them to be able to interpret the curriculum and successfully implement ESD. At the time of reporting, only a handful of teachers are involved in this process; the rest are recipients (Primary Agents) who are left to interpret the curriculum document for themselves following the introductory workshop referred to earlier (see section 4.3.3 on teacher training and continuous professional development).

The National Policy Guide for English Grades 4-12 [D3] indicates that the language skills are the themes and topics for English. This is a constraining factor which deters teachers from unleashing their creativity for lesson plan development as encouraged by SEEN (2009). The data also reveals that various teachers use theme-based teaching (see section 4.4.1, Using the thematic approach) in their practice, which they (teachers) commend as a successful strategy (Gursoy, 2010), lamentably also revealing that it has been discouraged. This study did not, however, explore why theme-based teaching is discouraged. Theme-based teaching is similar to Content Based Instruction used elsewhere (Hauschild et. al., 2012; Mehdaoui, 2015).

5.2.2.4 Need to simplify the curriculum documents and expectations

Among teachers' challenges is a feeling that the curriculum is overloaded and that English Language teachers are not the right people to teach environmental learning (see section 4.4.5 Challenges experienced on inclusion of ESD in practice). This challenge is not only specific to this context: Hauschild et al. (2012) advise that teachers should not feel pressured to adapt their curriculum in attempting to incorporate environmental contents; they simply need to raise awareness without deviating from the curriculum. The curriculum is not clear as to the extent to

which ESD is to be incorporated in teachers' practice. Teachers are expected to incorporate ESD while focusing on meeting the competencies highlighted in the curriculum, but the curriculum does not specify this as noted in section 5.2.2.4 above.

Acknowledging that the 'parts' and the 'people' are two sets of emergent powers, this potential can only be realised if the two can be harmonised to work towards the same curriculum goals, which also depends on individual's own ultimate concerns and vested interests. This complexity of the curriculum thus needs to be addressed by the Ministry of Education, Arts and Culture.

5.4 Conclusion

This chapter presented a discussion of four Analytical Statements that emerged from the study's morphogenetic analysis and use of analytical dualism as a temporal division of the 'parts' and 'people'. These discussions form the basis of the study's conclusions and recommendations which are the focus of the next and final chapter.

CHAPTER 6

RECOMMENDATIONS AND CONCLUSIONS

6.1 Introduction

This chapter sums up the study by highlighting on the findings and presenting recommendations on the implementation of ESD in the Senior Primary English curriculum. The recommendations made here may also be applicable to other similar language contexts at this phase or higher phases within school curricula. The chapter also reflects on the limitations of the study and identifies areas for further research.

6.2 Summary of the study

This report presented how the emergence of ESD was shaped and is currently being implemented in the Senior Primary English curriculum in the Khomas Region of Namibia. My pursuit of this topic arose from the exposure I received from the Environmental Education / Education for Sustainable Development elective course during my BEd Honours degree programme at Rhodes University. The programme inclined me to explore how I could best implement ESD in my practice, which then further motivated me to investigate how the concept was being implemented in the Khomas Region where I practice. The findings of the study have inspired me to engage with some of the recommendations which, if implemented, could remove some of the constraints encountered by teachers in this context and thereby facilitate further emergence of ESD in teachers' practice.

The study was a bounded case study investigating factors that have shaped, and currently shape the emergence of ESD implementation in Senior Primary English Language teaching in the Khomas Region. It involved analysing documents, administering a questionnaire and conducting semi-structured interviews to enable a morphogenetic analysis of the case. The study enabled me to gain substantial understanding of the emergence of ESD in this context by transcending the limitations of empirical observations only. The findings from the study can be used to generalise how ESD can be implemented in various language contexts in the Senior Primary phase or higher.

The study revealed that ESD in Senior Primary English curriculum was shaped by various structures and mechanisms as discussed in sections 5.2.1 and 5.2.2. The overall finding is that ESD in the Senior Primary English Language curriculum has emerged, but this emergence is not synchronous with the structural and agential entities. The study established the need to increase professional development opportunities to orientate teachers to ESD, and it identified the theme-based approach to teaching ESD as an enabling mechanism for ESD implementation.

In addition, the study endorses that teachers can benefit from joining networks which are identified as structures for strengthening teachers' agency. It also identified the need to have clearly articulated policies and structures that guide the agency of Senior Primary English Language teachers' practice to set them in harmony with ESD teaching methods. This was revealed by teachers' accounts of receiving 'theoretical' support for ESD but insufficient practical support. Finally, the study suggests the need for the development of an ESD implementation guide. The study concludes that there is dissonance within 'the parts' and 'the people' who are central to the implementation of ESD in teachers' agency.

6.3 Recommendations

Five recommendations that emerged from the findings of this study are presented below:

Recommendation 1: Increase professional development opportunities for teachers' orientation to ESD

The study found that teachers involved in the study lacked strong conceptual understanding (see 4.3.6) and effective ESD implementation strategies (see 4.4.4). This is attributed to the poor mechanisms devised for teachers' in-service training (see 4.3.4.3). It is therefore recommended that the potential properties and powers in the domain of the Real such as Continuing Professional Development programmes and partnerships with Higher Education Institutions should be actualised to sensitize teachers to the concept of ESD, its significance and how to effectively implement it in their practice. Many of these structures already exist such as the Programmes and Quality Assurance Department under the Namibian Ministry of Education, Arts and Culture, the clustering system and the school departments at specific schools. However, these structures need to be re-conditioned to become more efficacious in developing teachers' agency in relation to ESD.

There is also a need to develop short courses like the Namibian Environmental Education Certificate described in section 4.2.3.1 which was offered in collaboration with Rhodes University in the past. This resonates with the idea to partner with North-West University discussed in section 4.2.5.6, as well as collaborating with non-governmental organisations concerned with ESD. The Sustainability Starts With Teachers programme discussed in section 2.4.3.3, although specific to secondary school educators, is also a good model of teachers' continuous professional development. Such partnerships serve as potential opportunities to develop tailor-made courses for teachers' professional and personal development.

It was through the impact of such courses that I developed my interest in pursuing further education and to research on this topic. Other English teachers could also benefit from such structures and strengthen the mechanisms in which they practise on the subject. Similarly, the Namibian Ministry of Education, Arts and Culture needs to strengthen partnerships with other stakeholders such as those who operate outside formal education but serving a similar rationale (ESD) to develop teacher training initiatives.

Similar to Tshiningayamwe's (2011) recommendation for the Namibian Biology curriculum, other structures can still be established or expanded to promote and support ESD implementation amongst English Language teachers. Teachers have indicated their desire to get (more) acquainted with ESD in their practice. Hence the establishment of such structures will be a stepping-stone to strengthening their current ESD practice and to improve their confidence because as it is now, teachers get limited ESD orientation, but they are expected to actively teach for sustainable development (ibid). Teachers need to be sufficiently trained (pre-service and in-service) so they can effectively implement ESD as a catalyst for the country's Sustainable Development Goals.

Recommendation 2: Encourage theme-based approaches to English Language teaching as a strategy to strengthen environmental and sustainable development content

The study found that several teachers adopt a theme-based approach to ESD implementation. It was also established that the theme-based approach is currently discouraged although the study did not uncover the reasons for this discouragement. I recommend that the theme-based approach or content-based instruction to teaching English Language be adopted, and that those currently using it motivate and guide others on how the approach can be best implemented. These

approaches have been lauded as effective learner-centered methodologies because they enable learners to develop authentic communication and at the same time increase the likelihood of implementing the acquired knowledge into practice, while achieving both content and language knowledge (Mehdaoui, 2015; Hauschild et al., 2012; Gursoy, 2010).

Recommendation 3: Encourage teachers to join networks and strengthen cluster subject groups

The study established that involvement in networks is beneficial for teachers to get exposed to current trends and practices from other contexts. This was evidenced with the growing number of teachers who attend the EEASA and NEEN conferences. These structures offer teachers opportunities to network and tap into emerging trends, giving them opportunities to learn from examples of good ESD practice that are shared. I therefore recommend that English teachers join existing networks or start new networks that can offer them opportunities for the much-needed exposure to ESD.

It was also established that cluster subject groups have potential to condition teachers ESD practice. I therefore recommend that cluster subject groups be strengthened and utilized optimally as structures for conditioning teachers' agency for ESD implementation and other emerging trends.

Recommendation 4: Harmonise policy and practice for purposeful ESD implementation

The study found that the policies that guide the Senior Primary English Language curriculum do not align with teachers' common practice. ESD is present in the curriculum but because of the conceptual ambiguity, teachers are not well-oriented to this new agenda. Teachers lack in-depth understanding of concepts such as sustainable development and ESD, which compromises purposeful ESD implementation. I thus recommend that the theoretical and practical mechanisms be harmonized so that the curriculum can make a meaningful impact on those who implement it. There is thus a need to have clearly articulate policies and structures that guide the agency of Senior Primary English Language teachers.

Recommendation 5: An ESD implementation guide should be developed

The study found that there is no guiding document regarding the implementation of cross-curricular issues; which include ESD. This has been identified as a constraining issue as teachers are left to deal with their own ambiguities and challenges especially in the absence of adequate support from advisory services. The study thus recommends that an articulate implementation guiding document be developed. The document can be a very useful mechanism for when teachers are confronted by ambiguities and it can also serve as a universal guide against which teachers can evaluate their own practice to model best practices.

6.5 Study's challenges and limitations

As this study was conducted as a qualitative case study with an open social system, I experienced various challenges and constraints which were outside of my control. These limitations are as follows:

- Both positions of national and regional advisory teachers were vacant at the time when I was collecting this study's data. This prevented me from gaining the perspectives of key informants in the area of English Language teaching in Namibia and regionally.
- Another limitation was that I could not secure an interview with the subject officer at NIED as she indicated that her schedule was too busy.
- The third limitation I experienced was presented by the low return of questionnaires from some schools. Some schools did not return any completed questionnaires, but I did not put pressure on those concerned because I had made an ethical commitment that participation in the research was voluntary.
- The fourth limitation was that most school clusters did not function productively. This made data generation very difficult as I then had to go to individual schools instead, which was very time consuming and complex.
- The final limitation was presented by time constraints; it was not easy to generate the data in-between school hours as I am also a full-time teacher.

6.4 Recommendations for further research

In my own professional and research trajectory, I would like to pursue this topic further by acting upon Recommendation One and conducting further research on how teachers' ESD knowledge can be strengthened through a professional development programme.

Further research also needs to be conducted on:

- the availability and effectiveness of continuous professional development programs for Senior Primary English Language teachers.
- the extent of ESD in teacher training curricula.
- the suitability of Senior Primary English Language subject as an ESD carrier-subject.

6.5 Conclusion

This final chapter of the study presented a summary of the study with recommendations on the case, the limitations I encountered in doing the study as well as suggestions for further research. This study, which focused on ESD implementation in the Senior Primary English curriculum was theoretically framed by critical realism, specifically Margaret Archer's morphogenetic theory which enabled me to see deeper into the layers of social reality prevalent in the Senior Primary English teaching in the Khomas Region. The analysis of the data presented in Chapter 4 helped me to identify the findings presented in Chapter 5.

The study's findings suggest that the emergence of ESD implementation in the Senior Primary English Language teaching from 1990-2018 was shaped and continues to be shaped by various structures, mechanisms and properties (global ESD agendas interacting with post-independence policy and institutional reforms [5.2.1], interaction of global trends in education with pre-independence policy and practice [5.2.2] and also global and national structures, mechanisms and properties [5.2.3]). The study also established that there is a policy-practice dissonance regarding the implementation of ESD in Senior Primary English teaching in the Khomas Region. This dissonance can be resolved if the Namibian Ministry of Education, Arts and Culture can put in place mechanisms to ensure that the 'parts and people' of Senior Primary English Language teaching in the Khomas Region of Namibia are oriented towards the same curriculum goals.

Having discussed that structural and cultural entities have emergent powers that both enable and constrain human agency, this study concluded that the participating teachers (and possibly many more beyond this case study) are ready to be conditioned with the best available enabling mechanisms to implement ESD in their practice.

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APPENDICES

APPENDIX A: SAMPLE DOCUMENT ANALYSIS TOOL (phase 1 analysis)

Document analysed: The National Curriculum for Basic Education D 1
Content sought: How ESD is incorporated in the curriculum
Content found and <i>Relevance</i> Foreword Rapid changes such as technology advances, globalisation, HIV and AIDS, and environmental degradation make it necessary to re-evaluate the guidelines governing the purpose and content of education. Selecting what children should learn has always been complex. A fast-developing world makes it essential that the curriculum framework has to adapt to change. The knowledge, skills, values and attitudes which learners can acquire are infinite. The developers have made a careful selection of the timeless and the new, in order to find a delicate balance to ensure that our curriculum remains relevant. In this manner we strive unceasingly, as we always have, towards equipping the younger generation to deal with both the present and the future Introduction It responds to recent changes in Namibian society and to emerging challenges such as globalisation and HIV and AIDS. It is directed towards helping achieve the national development goals set out in the National Development Programmes 2 and 3, the Education and Training Sector Improvement Programme (2007), and the long-term perspective of Namibia Vision 2030 (2005). NAMIBIA VISION 2030 2 The curriculum has been developed to give direction to Basic Education towards the realisation of Namibia Vision 2030. It ensures continuity of the foundation principles of the Namibian education system described in Toward Education for All: A Development Brief, in 1993. The goal, aims, competencies, core skills and key learning areas have been identified in relation to Namibia Vision 2030 as a curriculum for the future. Learning to learn is at the core of this process, and in a knowledge-based society, this continues as lifelong learning. THE CONSTITUTION AND THE EDUCATION ACT 2 The curriculum is based on the Constitution of the Republic of Namibia and the Education Act. The constitution states that education is a right for all persons, and it is the responsibility of the government to provide education. The Education Act defines Basic Education as Grades 1-12, and as part of the provision demanded by the Constitution, this curriculum sets out the principles and intended learning for Basic Education. THE STRUCTURE AND SUBSTANCE OF BASIC EDUCATION 14

Throughout Basic Education, HIV and AIDS education, Health and Wellness education, Human Rights and Democracy, Information and Communication Technologies (ICTs) and Environmental learning are integrated across the curriculum. Each of these issues deals with particular risks and challenges in our Namibian society.

The main risks and challenges have been identified as:

- the challenges and risks we face if we do not care for and manage our natural resources
- the challenges and risks caused by HIV and AIDS
- the challenges and risks to health caused by pollution, poor sanitation and waste
- the challenges and risks to democracy and social stability caused by inequity and governance that ignores rights and responsibilities
- the challenges and risks of living in an information society
- the challenges and risks we face from globalisation

All our learners need to understand the nature of these risks and challenges, and how they will impact our society and the quality of life of our people now and in the future. They must understand how these risks and challenges can be addressed on a personal, local, national and global level and how they can play a part in addressing these risks and challenges in their own school and local community.

2.2.5 An environmentally sustainable society 7

There is no atmospheric, land or water pollution from croplands, rangelands or mines, and minimal pollution from urban and industrial areas. Farms and natural ecosystems are productive and sustainable socially, economically and ecologically. There is high quality, low impact tourism. The average family size is small, and there is food security.

The aims of the curriculum regarding the development of an environmentally sustainable society are to provide the scientific knowledge, skills, attitudes and values needed to ensure that the environment is respected and sustained, and to develop the individual's ability to make environmentally wise choices in terms of economic activities and also family planning.

3.2 KEY LEARNING AREAS 10

A key learning area is a field of knowledge and skills which is part of the foundation needed to function well in a knowledge-based society. The future society of Namibia Vision 2030 needs citizens who are proficient in language, who understand the processes of development and environmental issues, and who are healthy and creative. Every person must have at least an understanding of and some competence in mathematics, natural sciences, social sciences, technology and commerce. The function of basic education is to provide each learner with a broad basis for future specialisation, not only in terms of a career path or studies after school, but also to allow for some depth in one field of study at senior secondary level.

The key learning areas in basic education are languages, mathematics, natural sciences, social sciences, technology, commerce, the arts and physical education. The knowledge that is essential for the development of Namibian society does not resort under the key learning areas alone. Therefore, the following six essential themes are also covered by the curriculum: HIV and AIDS education, health and wellness education, human rights and democracy, information and communication technology, road safety, and environmental learning. These themes are included as topics or sub-topics in appropriate carrier subjects with specific competencies to be attained within the framework of the subjects and grades concerned.

7.2 TEACHERS 49

The first condition for good curriculum management at school level is that all teachers are fully conversant with the curriculum and its implications and with the process of knowledge creation, and are teaching, learning and assessing in a learner-centred way.

7.3 LESSON STRUCTURE 49

The fundamental structure of the learning process at all levels is to use the learner's existing knowledge and ideas, to bring in new knowledge, and to facilitate and direct them in transforming knowledge. Learning processes must always lead to increased understanding or skill, and increased ability to handle knowledge - not to knowledge for its own sake. These processes need a sequence of several lessons. Each lesson plan must clearly show how the lesson will contribute to the structure of the learning experience and how learning will be assessed. Teacher reflections on the lesson should be written down after the delivery of each lesson.

In order to accomplish the above-mentioned, teachers must be fully conversant with and competent in how to teach according to a learner-centred approach. If they are not familiar with the approach, or have difficulty in implementing it, professional support must be provided.

7.4 HUMAN RESOURCE UTILISATION 50

It is highly advantageous when a subject teacher teaches the same class throughout a phase. This ensures stability and continuity for the learners. The teacher gets to know the learners and their families well and can consequently do better learner-centred teaching. The teacher also gets an overview of the curriculum for a phase and can therefore better plan and organise learning throughout that phase.

7.11 CO-CURRICULAR ACTIVITIES 52

The formal learning set out in the curriculum is only part of what schools should offer. Cocurricular activities can enrich the lives of the learners, making school an enjoyable place for them to be after lessons. Co-curricular activities should be organised to support particularly important areas of learning or to supplement areas of learning with limited time in the timetable. Examples of such activities are HIV and AIDS clubs, science clubs, environmental groups, debating societies, a school newspaper or website, etc. Examples of areas that have too little curriculum time but where co-curricular activities can supplement curriculum time are particularly the arts (drama groups, music groups, choirs, dance groups, art groups), and physical education (sports and games).

Document analysed: Senior Primary Phase English Second Language Syllabus Grades 4-7 D2

Content sought: How ESD is incorporated in the syllabus

Content found and *Relevance*

Rationale:

language under-grounds the entire curriculum: the stories that learners read and listen to, the topics they deliberate on, the role plays they perform, will all have cross curricular links with issues such as the environment, health (HIV and AIDS), information and technology, human rights, the rights of children, personal and community values including gender, social justice and democracy. They will learn to understand and deal with these issues and develop values as they read, talk and write about them. P.1

The syllabus promotes:

to develop greater awareness of health and population issues, democracy and human rights, information and technology, HIV and AIDS, the environment and individual responsibilities regarding these and to enable learners to talk, read and write about them. P.2

Links to Other Subjects and Cross-curricular Issues

The cross-curricular issues including Environmental Learning; HIV and AIDS; Population Education; Education for Human Rights and Democracy (EHRD), Information and Communication Technology (ICT) and Road Safety have been introduced to the formal curriculum to be dealt with in each subject and across all phases because each of the issues deals with particular risks and challenges in our Namibian society. All of our learners need to:

- understand the nature of these risks and challenges
- know how they will impact on our society and on the quality of life of our people now and in the future
- understand how these risks and challenges can be addressed on a national and global level
- understand how each learner can play a part in addressing these risks and challenges in their own school and local community

Since some subjects are more suitable to address specific cross-curricular issues, those issues will receive more emphasis in those particular syllabuses. In this syllabus the following are examples on the links to cross-curricular issues for grades 4-7. P.3

It should be noted that the cross-curricular issues are NOT used as basis for the development of schemes of work. The scheme of work must be designed based on the whole syllabus, but more specifically on the content section of this syllabus:

Approach to teaching and learning

The approach to teaching and learning is based on a paradigm of learner-centred education (LCE) described in ministerial policy documents and the LCE conceptual framework. This approach ensures optimal quality of learning when the principles are put into practice. P.4

Document analysed: The National Subject Policy Guide for English Grades 4-12
D 3

Content sought: How the document guides teachers in implementing ESD in their practice

Contents found and *Relevance*

In language subjects, the language skills are the themes and topics. P.2

The school should partner and share the responsibility for in-service training of staff members. P.5

Teachers should share information, experiences and strategies they were equipped with during training. P.5

Subject heads: facilitating and creating opportunities for team building and continuous professional development in order to improve the teaching competence of the teachers involved.

identify needs for support from Advisory Teachers and arrange with Regional Office for input discuss the outcome of the Teacher Self-Evaluation (TSE) with individual teachers and give support, guidance and assistance English Second Language teachers

assist new and beginner teachers in all respects

provide for specialist assistance to the subject teachers, e.g. by advisory teachers, cluster subject groups, etc.

allocate mentor teachers to beginner teachers and conduct an effective induction programme for new teachers

provide school-based staff development programmes to the subject teachers

The subject teacher

facilitate teaching and learning both inside and outside the classroom in order for the learners to acquire the necessary knowledge and skills

consult the nearest resource centre in connection with training opportunities and sources of information, and teaching and learning materials

Advisory Teachers

(ATs) have extensive knowledge of the relevant subject areas and their responsibilities are, amongst others, to ensure quality in education through the rendering of liaison services and subject guidance. The school should fully utilise the expertise provided by ATs.

Cluster Subject Groups

The purpose of cluster subject group meetings is to improve efficiency, build capacity and empower teachers. Attending and participating in cluster subject activities can play a positive role in collaborative development and improving quality teaching and learning.

Subject meetings for English Second Language will be held regularly, at least once per term.

During school-based studies, the class teacher plays a crucial role in assisting the student teacher and modelling good practice.

Document analysed: Towards Education for All

D 9

Content sought: To track the structures and mechanisms pertaining to the development of Namibia's Education System under the Ministry of Education, Arts and Culture.

Education for All Conference in March 1990 (sponsored by UNDP, UNESCO, UNICEF)

World Bank) saw the need to move from Elite education to Education for All (pp, 1-16).
 Namibia committed to goals of EFA.

- Access
- Equity
- Quality
- Democracy (pp, 32-34)

Ministry of Education and culture was set up in 1990.

NIED set up as central body to curriculum development (, 122).

Education was seen as enabler for development (pp, 18-19).

Learning about environment and its threats (p, 19)

The adoption of English as new language for teaching and learning (pp, 65-66)

Moving from rote learning to learner-centred education (pp, 119-123)

Need to train of teachers (p, 77-79)

Reformation of teachers' colleges (pp, 77).

Document analysed: Support Environmental Education in Namibia Documents D10

Content sought: To establish the contribution of the project to ESD presence in the curriculum

Partnered with other institutions to toll out professional development courses in EE

English teachers to choose themes of importance to Namibia

Encourages taking learners outside the classrooms

TD 1

Internal policy	Scheme of work	Lesson taught Gr. 4
	Not provided	<p>Conservation: Salome saves the forest - 06 Mar Learners learn about conservation and also discuss the importance of managing resources.</p> <p>Healthy Environment 25 Jun Learners learn about pollution and waste, and how it impacts them. Learners are tasked to find ways to save the environment.</p> <p>Healthy environment 26 Jun Leaners observe pictures and comment on how the</p>

		<p>environment is being destroyed in each picture. Learners write an essay on how to keep the environment clean and safe.</p> <p>Looking after our wild animals: Xaro visits a game reserve 28 Sept Learners learn about game reserves while learning about the simple future tense.</p> <p>Looking after our wild animals: Xaro visits a game reserve 29 Sept Learners learn about the importance of game reserves and the importance of reserving wild animals while learning about simple past tense.</p>
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TD 2

Internal policy	Scheme of work	Lesson taught
<p>One language teacher per grade</p> <p>Reading corners Sitting style to allow for group/pair work</p> <p>Tasks be set from a context of a belonging to a theme selected by teachers (could be environmental)</p> <p>Schemes of work derived from the syllabus (EE = CC)</p>	Nothing detected	<p>Our Heritage 2 Oct 2017 Our Natural Heritage Vocabulary on heritage could create awareness in learners</p> <p>Our Natural Heritage 16 Oct 17 <u>Sea Birds</u> Information on sea birds such as their habitats. Why birds are a national heritage</p> <p>Animal Stories 17 Oct 2017 <u>The Ostrich</u> Learners get to know more about ostriches and how to conserve them.</p> <p>Our heritage <u>The lonely monkey</u></p>

		Lesson focus on structure of poem but learners could grasp facts about monkeys. 19 Oct 2017 Not detected
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TD 3

Internal policy	Scheme of work	Lesson taught
Thematic approach – potential to engage learners on ESD topics (has been discouraged though) New scheme being drawn.	Nothing detected	Nothing detected in all 5

TD 4

Internal policy	Scheme of work	Lesson taught
<p>One language teacher per grade</p> <p>Reading corners Sitting style to allow for group/pair work</p> <p>Tasks be set from a context of a belonging to a theme selected by teachers (could be environmental)</p> <p>Schemes of work derived from the syllabus (EE = CC)</p>	<p><u>Week 5</u> Read a map</p> <p><u>Week 7</u> Listen to a weather report Present a weather report</p> <p><u>Week 8</u> Read a weather map</p> <p><u>Week 10</u> Talk about fire</p> <p>NB: Derived from prescribed textbook (Let's Do)</p>	Nothing detected in all 5

TD 5

Internal policy	Scheme of work	Lesson taught
Not provided	Not provided	Clean water 25-29 Jul The use of one theme across the week to teach various language skills and activities keeps learners focused on the theme. Other themes used: Funny animals 2-6 Jul Harmful animals 9-14 Jul Nature 16-20 & 23- 27

TD 6

Internal policy	Scheme of work	Lesson taught
Nothing detected	<u>Topic 3</u> -Namibia is a sunny country -weather report <u>Topic 11</u> -Animals and the environment <u>Topic 12</u> -Care about conservation -Talk about poaching	Stories and poems about nature 26 Jun 2018 (Grade 4) Story about the sun and the wind – awareness could be raised

TD 7

Internal policy	Scheme of work	Lesson taught
Thematic approach – potential to engage learners on ESD topics (has been discouraged though) New scheme being drawn.	Not provided	Not provided

TD 8

Internal policy	Scheme of work	Lesson taught
Encourages learner-centeredness Subject meetings inviting guest speakers as well as feedback platform for workshops attended and ideas sharing.	Traditional stories Useful plants The importance of water	Traditional stories 2 Jul Use of traditional stories as a listening comprehension task. Traditional stories 3 Jul Reading traditional stories may bring out traditional

<p>Teachers can inform management if there is need subject related support from Advisory teachers.</p> <p>Participation in cluster subject activities is encouraged and seen to play a positive role in developing quality teaching and learning.</p>		<p>practices that a pro-environment</p> <p>Traditional stories 4 Jul Using traditional stories for reading comprehension</p> <p>Traditional stories 5-6 Jul Use traditional stories to teach concord</p> <p>Traditional stories 9 Jul Use of traditional stories to teach verbs.</p>
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TD 9

Internal policy	Scheme of work	Lesson taught
<p>Encourages learner-centeredness</p> <p>Subject meetings inviting guest speakers as well as feedback platform for workshops attended and ideas sharing.</p> <p>Teachers can inform management if there is need subject related support from Advisory teachers.</p> <p>Participation in cluster subject activities is encouraged and seen to play a positive role in developing quality teaching and learning.</p>	<p>Staying healthy and fit</p> <p>Animal attitudes</p> <p>Weather in our lives</p> <p>NB: No elaboration on the contents of topics but they have ESD elements.</p>	<p>Pollution 17 Sept Discussions and debate on environmental issues raises awareness</p> <p>Pollution 18 Sept Listening to texts on pollution raises awareness</p> <p>Pollution 21 Sept Learners read texts on pollution for comprehension.</p>

TD 10

Internal policy	Scheme of work	Lesson taught
<p>Not provided</p>	<p>Nothing explicit</p>	<p>Holidays and festivals</p> <p>The use of one theme across the week to teach various language aspects and assessment.</p>

APPENDIX B: QUESTIONNAIRE

TEACHER QUESTIONNAIRE

TEACHER REFERENCE CODE:

Please answer all questions by ticking the appropriate box where applicable. The information you give here will be treated with utmost care and confidentiality, and your identity will remain anonymous.

1. What is your understanding on the concept of Environmental Learning as a cross-curricular issue?

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2. Do you ever include environmental content in your teaching practice?

Yes	No
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If yes, explain briefly how you incorporate it?

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3. To what extent do you think that English Language is an appropriate / effective subject for learners to engage with environmental issues and ideas about sustainable development?

1. Not at all appropriate	2. Seldom appropriate	3. Sometimes appropriate	4. Highly appropriate

4. Have you ever received any sort of training on how to include environmental content in your teaching?

Yes	No
-----	----

If yes, when was the training offered, by who, and for how long?

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5. Has your method of inclusion been successful in meeting the broad curriculum expectations for English Language Teaching?

Yes	No
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If not, what challenges have you experienced?

6. What is your understanding of the term 'Education for Sustainable Development' (ESD)?

7. What potential do you see for Namibia's goal of sustainable development through the implementation of the ESD policy in the Senior Primary English curriculum?

8. Do you agree to be contacted for further enquiries on this subject?

Yes	No
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9. If yes, please provide your contact details below.

Cellphone number:
Email address:

APPENDIX C: INTERVIEW SCHEDULE (TEACHERS)

1. What is your understanding of ESD?
2. Please tell me about any new perspectives you gained from engaging with the questionnaire.
3. You have indicated that you are implementing ESD in your practice. Please elaborate on how you do it/why you don't.
4. How were you introduced to ESD and that it is a cross-curricular issue?
5. What kind of support (if any) do you get from subject advisors on how to best implement ESD in your practice?
6. What kind of support (if any) do you need from subject advisors on how to best implement ESD in your practice?
7. Is there anything else you would like to share about the implementation of ESD in the Senior Primary English curriculum?

APPENDIX D: INTERVIEW SCHEDULE (KEY INFORMANT)

1. What is your understanding of ESD?
2. Please tell me about your position and how it links to ESD?
3. From your experience, how is ESD being implemented in the Senior Primary English curriculum?
4. How does your sub-section (advisory services) ensure that ESD is being implemented accordingly in the Senior Primary English curriculum.
5. How often do Senior Primary English teachers get in-service training on ESD implementation.
6. What is the form and content of that in-service training?
7. How best can both veteran and novice teachers implement ESD in their practice?
8. Is there anything else you would like to share about the implementation of ESD in the Senior Primary English curriculum?

APPENDIX F: ANALYTICAL MEMO PHASE 1

This memo was created to identify social and cultural structures, mechanisms and properties that conditioned the development of ESD in the SP English curriculum from 1990-2018. The data taken from documents analysed, questionnaires and interviews.

Sub-categories	Comment	Source
Social structures	The Education Act defines Basic Education as Grades 1-12, and as part of the provision demanded by the Constitution, this curriculum sets out the principles and intended learning for Basic Education.	DA 1, p 4
	... Environmental learning are integrated across the curriculum.	DA 1, p 12
	During our B.Ed. training at UNAM	T 10
	At tertiary institution (UNAM)	T 15
	From UNAM	T 16
	University of Namibia Honours in Education	T 19
	The training was offered when I was at the college,	T 20
	UNAM	T 24
	At college (Windhoek College of Education),	T 35
	I am a senior education officer, responsible for languages,	KI 1
	Luckily all the schools are offering English and like I said in the beginning, it's teaching and education. English is part of the curriculum, English must be taught in all the schools, English is the official language, English is the language that we use to communicate in, in the Republic of Namibia.	KI 1
	Since last year, the teachers were introduced to the SDG 4 Goal, which relates to ESD, and the teachers are informed to make sure that the cross-curricular teaching must take place.	KI 1
	Honestly, ah... our subject advisors don't really engage us or enlighten us or give us information on how to incorporate and...now what can I say?	TI 1
	Uuhm...I think it's also part of this curriculum. There is a part in the syllabus that says cross-curricular issues and they have given examples of materials that you can use.	TI 2
	I think for the first time when, I think after independence when that new syllabus came out, we had a cross-curricular section in there as a term	TI 3
	To be honest no real support because as English teachers we or language teachers	TI 4
	It seems to me nowadays it is a matter of whom do I know, whose book will I approve and we neglect the quality of books that are being introduced.	TI 5
	It was introduced when we were studying at the old	TI 7

	Windhoek College of Education.	
	Yes, from Regional Office	TI 7
	I actually did it as I was furthering my education at UNAM.	TI 9
	The subject advisors or facilitators are the ones providing us with information for example drawing up of term plans, year plans and all those types of things.	TI 9
	It is part of the curriculum, it is prescribed in the syllabus	TI 9
	while studying or when I was a student at UNAM,	TI 10
	The curriculum also talks much about ESD	TI 11
Social mechanisms	The developers have made a careful selection of the timeless and the new, in order to find a delicate balance to ensure that our curriculum remains relevant. In this manner we strive unceasingly, as we always have, towards <u>equipping the younger generation to deal with both the present and the future</u>	DA 1
	The aims of the curriculum regarding the development of an environmentally sustainable society are to provide the scientific knowledge, skills, attitudes and values needed to ensure that the environment is respected and sustained, and to develop the individual's ability to make environmentally wise choices in terms of economic activities and also family planning.	DA 1 p,7
	The aims of the curriculum regarding the development of an environmentally sustainable society are to provide the scientific knowledge, skills, attitudes and values needed to ensure that the environment is respected and sustained, and to develop the individual's ability to make environmentally wise choices in terms of economic activities and also family planning.	DA 1 p, 10
	language under-grades the entire curriculum: the stories that learners read and listen to, the topics they deliberate on, the role plays they perform, will all have cross curricular links with issues such as the environment, health (HIV and AIDS), information and technology, human rights, the rights of children, personal and community values including gender, social justice and democracy. They will learn to understand and deal with these issues and develop values as they read, talk and write about them.	DA 2 p, 1
	The syllabus promotes: to develop greater awareness of health and population issues, democracy and human rights, information and technology, HIV and AIDS, the environment and individual responsibilities regarding these and to enable learners to talk, read and write about them.	DA 2 p, 2

	The cross-curricular issues including Environmental Learning; HIV and AIDS; Population Education; Education for Human Rights and Democracy (EHRD), Information and Communication Technology (ICT) and Road Safety have been introduced to the formal curriculum to be dealt with in each subject and across all phases because each of the issues deals with particular risks and challenges in our Namibian society.	DA 2 p, 2
	Advisory Teachers (ATs) have extensive knowledge of the relevant subject areas and their responsibilities are, amongst others, to ensure quality in education through the rendering of liaison services and subject guidance. The school should fully utilise the expertise provided by ATs.	DA 3 p, 8
	I am also dealing with the SDG 4 programme which directly involves education.	KI 1
	That's where ESD comes in and it is also linked to being an advisor for languages. Being the advisor for languages means that we have to support the teachers that are dealing with education and teaching at schools.	KI 1
	All the subjects are included and teachers have been trained, they have been informed.	KI 1
	Although we focus on under-performing schools, we can also do unannounced visits, we can do random visits to the schools that are also doing very well. That is what we do. We visit schools quite frequently to make sure that the standard also is maintained and enhanced at all the schools.	KI 1
	What we do, we wait until the teachers are in our line. If they come, what we do is, we build up a database to find out how many teachers were not trained and those teachers that were not trained, we do in-service training for them or we actually inform them about what was happening, in all the subjects. That is what we do every year. We induct teachers.	KI 1
	... we are taught to include this topics in the curriculum but also in our training we talked about environmental education in Biology, Geography and Development Studies,	TI 2
	From subject advisors? Uh uh...apart from when we have readathon the ministry, that department that deals with readathon the libraries, they always send us pamphlets and give us themes to select and read about this this year, the readathon is about for example saving water, or animals and stuff like that. Apart from that, that's all I know. During readathon we always get themes and most of the themes have to do with environment.	TI 2

	Workshops that I used to see many years ago which were a current thing are not happening.	TI 5
	more workshops that are being conducted, trimesterly for example to the extent where teachers are really comfortable and are able to drive this process on their own.	TI 5
	I was introduced through the qualification, through the teaching that I received when I was studying, through my studies which is education at the University of Namibia.	TI 6
	Every now and then we go for workshops and they also assist us with equipments (sic)if we need any resources to use in our lessons.	TI 7
	Basically, how it works is, you talk to your HOD, or your HOD – Head of Department sees where the need and the lack is and then they bring in the subject advisor to come help you.	TI 8
	I think just like any other policies which are side-lined in our profession, I think the most important thing is just to (not audible) for them to create a platform for us teachers on where to start off.	TI 10
	I was introduced to ESD through Refreshing Workshops for teachers	TI 12
	Refresher courses were given by Ms [name withheld], a week-long in 2015.	TI 12
Social properties	Rapid changes such as <u>technology advances, globalisation, HIV and AIDS, and environmental degradation make it necessary to re-evaluate the guidelines governing the purpose and content of education.</u>	DA 1
	It responds to recent changes in Namibian society and to <u>emerging challenges such as globalisation and HIV and AIDS.</u> It is directed towards helping achieve the national development goals set out in the National Development Programmes 2 and 3, the Education and Training Sector Improvement Programme (2007), and the long-term perspective of <u>Namibia Vision 2030 (2005).</u>	
	It ensures continuity of the foundation principles of the Namibian education system described in <u>Toward Education for All: A Development Brief, in 1993.</u>	P,2
	Learning to learn is at the core of this process, and <u>in a knowledge-based society, this continues as lifelong learning.</u>	P, 2
	The curriculum is based on the <u>Constitution of the Republic of Namibia and the Education Act.</u> The constitution states that <u>education is a right for all persons, and it is the responsibility of the government to provide education.</u>	

	the challenges and risks we face from globalisation	P, 14
	In language subjects, the language skills are the themes and topics.	DA 2 p, 2
	Yes. <u>Last year</u> by Khomas Environmental Education Programme for one day.	T 11
	Yes. <u>During my four years (2012-2015)</u> at tertiary institution (UNAM) by Ms [name withheld] and Mrs [name withheld].	T 15
	Yes. From UNAM <u>for 4 years</u> . Mostly throughout the 4 years of training.	
	Yes. <u>Many years ago</u> , through the Ministry of Education.	T 18
	Yes. <u>2013-2014</u> , University of Namibia Honours in Education (English and Social Studies)	T 19
	Yes. The training was offered when I was at the college, <u>it was a three-year course</u> .	T 20
	Yes. <u>Two years ago</u> , by language facilitators for a week.	T 42
	We also have a part that we play as educators in ESD for being the senior education officers or being the education officers for that matter.	KI 1
	<u>I would like whoever is in charge of ESD, should really contact NIED and then put it in</u> so that we teach our kids more because we live on the environment and our kids or our children need to know more of the environment.	TI 4
	Well I will say, ah...in theory the support is there. Why I am saying in theory is because according to the policy that is what is supposed to happen but maybe because of financial means and so on, that kind of support is not readily available.	TI 5
	Ja...what I would say is <u>more engagement from the Advisory Services</u> ;	TI 5
	I feel the English curriculum is too broad,	TI 8
	We actually don't know who is the advisors (sic).	TI 11
	I would've loved to see my subject advisor more through school and class visits, to ensure that I'm on the right path and doing things the correct way.	TI 12
Cultural structures	The formal learning set out in the curriculum is only part of what schools should offer. Cocurricular activities can enrich the lives of the learners, making school an enjoyable place for them to be after lessons.	DA 1
	The purpose of cluster subject group meetings is to improve efficiency, build capacity and empower teachers. Attending and participating in cluster subject activities can play a positive role in collaborative development and improving quality teaching and learning.	DA 3
	There was a moment when we went on a tour to KEEP,	TI 1

	ah...Giraffe KEEP...ah...we actually went with the learners and there we learnt about different contents about the environment actually ja.	
	Normally at my level because I am an ordinary teacher my subject advisor as the person that I would run to first if I have an issue within my subject is my HOD.	TI 6
	Yes, from Regional Office and <u>also sometimes from the school.</u>	TI 7
	We are going to <u>cluster meetings</u> and we are attending workshops actually on the first language English schools.	TI 9
	There is no support at all.	TI 11
Cultural mechanisms	The fundamental structure of the learning process at all levels is to use the learner's existing knowledge and ideas, to bring in new knowledge, and to facilitate and direct them in transforming knowledge.	DA 1 p, 49
	It is highly advantageous when a subject teacher teaches the same class throughout a phase. This ensures stability and continuity for the learners. The teacher gets to know the learners and their families well and can consequently do better learner-centred teaching. The teacher also gets an overview of the curriculum for a phase and can therefore better plan and organise learning throughout that phase.	DA 1 p, 50
	Examples of such activities (co-curricular) are HIV and AIDS clubs, science clubs, <u>environmental groups</u> , debating societies, a school newspaper or website, etc.	DA 1 p, 52
	The approach to teaching and learning is based on a paradigm of learner-centred education	DA 2 p, 4
	Subject heads: facilitating and creating opportunities for team building and continuous professional development in order to improve the teaching competence of the teachers involved.	DA 3 p, 5
	identify needs for support from Advisory Teachers and arrange with Regional Office for input	DA 3 p, 5
	discuss the outcome of the Teacher Self-Evaluation (TSE) with individual teachers and give support, guidance and assistance English Second Language teachers	DA 3 p, 6
	assist new and beginner teachers in all respects	DA 3 p, 6
	provide for specialist assistance to the subject teachers, e.g. by advisory teachers, cluster subject groups, etc.	DA 3 p, 6
	allocate mentor teachers to beginner teachers and conduct an effective induction programme for new teachers	DA 3 p, 6
	provide school-based staff development programmes to the subject teachers	DA 3p, 6
	The subject teacher should	DA 3p, 7

	facilitate teaching and learning both inside and outside the classroom in order for the learners to acquire the necessary knowledge and skills	
	... consult the nearest resource centre in connection with training opportunities and sources of information, and teaching and learning materials	DA 3p, 7
	Subject meetings for English Second Language will be held regularly, at least once per term.	DA 3p, 7
	During school-based studies , the class teacher plays a crucial role in assisting the student teacher and modelling good practice.	DA 3 p,8
	Yes. Last year by Khomas Environmental Education Programme for one day.	T 11
	No. But for the English teacher it is very easy to include it in daily teaching with prescribed curriculum. And if you are passionate about environmental issues, then you include it in most of your modules.	T 28
	No. As a language teacher it's very easy to incorporate/ include it in my daily lessons to be taught.	T 30
	Yes. Two years ago, by language facilitators for a week.	T 42
	Well, am...sometimes I just ah...take ah...pictures or poems ah... and stories ah... with content ah... related to...ah the teaching about the environment, and information that just enlighten people about the environment...ja.	TI 1
	We discuss... and debate about issues ah...related to for example...ah... littering or how to save water or ah...using our natural resources such as diamonds and...ja, all those kinds of thing.	TI 1
	I think it's a good idea but maybe they just need to...to give us some workshops or training on how to incorporate these types of programmes that are related to environment.	TI 1
	Nothing much but I look forward to engage more in such activities related to the environment, environmental education.	TI 1
	Yet we have an opportunity of working in cluster groups which depending on management of that cluster, which can be used to facilitate that question but again, if you don't have people that are taught in particular what it means to drive ESD, then the effort also falls short.	TI 5
	Because I remember in those days you could clearly see how the books is (sic) developing. Let's say from Grade 1, you have a development of one kind of story or a set-up of a story that is just building up from Grade 1 up to Grade 7 for example. And...it was very much put well in context.	TI 5

	I was trained by the University of Namibia, the information I did for my studies enabled me that it's very important for, <u>even if you are a language teacher to integrate cross-curricular teaching in your daily lessons' preparations.</u>	TI 9
	We are actually getting workshops.	TI 9
Cultural Properties	The first condition for good curriculum management at school level is that all teachers are fully conversant with the curriculum and its implications and with the process of knowledge creation, and are teaching, learning and assessing in a learner-centred way.	DA 1 P, 49
	In order to accomplish the above-mentioned, teachers must be fully conversant with and competent in how to teach according to a learner-centred approach.	DA 1 p, 49
	This approach ensures optimal quality of learning when the principles are put into practice.	DA 2 p, 4
	The school should partner and share the responsibility for in-service training of staff members.	DA 3 p, 5
	Teachers should share information, experiences and strategies they were equipped with during training.	DA 3 p, 5
	Since I am just an English teacher, so when I am looking for materials for learners to read then I always also include materials that are involving resources of Namibia, which tells us the importance and how we should use them so I will choose certain topics that will be included in the reading and also grammar {inaudible} I choose such texts to use.	TI 2
	... put it this way that the more older teachers because of their experience, so I was able to help, I actually helped the subject advisor and not the other way around.	TI 3
	I must admit to you that I haven't been teaching English for quite some time <u>although I am a qualified English teacher, I will only talk from the experience</u>	TI 5
	that is how I have come in touch with ESD, through teaching science.	TI 5
	I hope this term we will have some English meetings where <u>we are exchanging views with our colleagues who are teaching the subject on different levels whether it's Grade 5,6 or 4 etc.</u>	TI 9

APPENDIX G: CATEGORIES CODING (PHASE 2 ANALYSIS)

Anelly: Good morning Sir.

KI 1: Good morning ma'am.

Anelly: Thank you very much for agreeing to take part in my study. I hope the interview is going to be short. The first question that I have for you is, what is your understanding of ESD?

KI 1: It's..., What does ESD stand for?

Anelly: Education for Sustainable Development

KI 1: Ok fine. My understanding would be that ESD is to ensure inclusive and equitable education, and to promote lifelong opportunities for all citizens.

Anelly: Tell me about your position now here and how it links to ESD.

KI 1: I am a senior education officer, responsible for languages, and I am also dealing with the SDG 4 programme which directly involves education. Education comes in and this education is part of what I am doing. That's where ESD comes in and it is also linked to being an advisor for languages. Being the advisor for languages means that we have to support the teachers that are dealing with education and teaching at schools. It entails all the aspects that relate to ESD. We also have a part that we play as educators in ESD for being the senior education officers or being the education officers for that matter. It's part of education so it is included in the packet.

Anelly: From your experience, how is the ESD being implemented in the curriculum, specifically SP English curriculum in the Namibian schools, specifically in the Khomas Region?

KI 1: Luckily all the schools are offering English and like I said in the beginning, it's teaching and education. English is part of the curriculum, English must be taught in all the schools, English is the official language, English is the language that we use to communicate in, in the Republic of Namibia. Interesting enough, most question papers are set in English except the indigenous languages. English is the language that must guide the learner in the school. Since we deal with education, since we deal with creating opportunities for all the people, English is part of that. That's where ESD comes in. English is the bottom-line, English is used to educate the Namibian nation. That's where it comes and teaching and learning takes place in schools, we are responsible for schools, that's where it comes in since it deals with education.

Anelly: How are the teachers implementing the policy?

KI 1: Since last year, the teachers were introduced to the SDG 4 Goal, which relates to ESD, and the teachers are informed to make sure that the cross-curricular teaching must take place. They must make sure that all the goals are covered in all the lessons that they are giving. This must automatically happen at all the schools. English is happening, ESD is taking place, it is part of

SDG and teachers are sort of compiled to make sure that they cover all the seventeen areas of SDG. It must happen at all schools and it's happening.

Anelly: How does your sub-section ensure that the policy I being implemented, I mean, have the teachers gotten any in-service training, the English teachers?

KI 1: Not only English teachers, all the teachers but since we are specifically talking about English, you see, ESD links to SDG covers all the subjects. All the subjects are included and teachers have been trained, they have been informed. They were invited to the launch of the SDG, they are well informed about what is happening. As we visit schools, we make sure that...I'm responsible for languages, other teachers are responsible for other subjects so we go as a team, we do visit as a team to ensure that what we are preaching is implemented at the school and that is also how we advise teachers, to make sure that this is implemented at all the schools.

Anelly: How often do you visit the schools?

KI 1: We have a program that we draw in the beginning of the year, we just make a division between the secondary schools and the primary schools, but I can tell you that every term we visit 25% of schools. Although we focus on under-performing schools, we can also do unannounced visits, we can do random visits to the schools that are also doing very well. That is what we do. We visit schools quite frequently to make sure that the standard also is maintained and enhanced at all the schools.

Anelly: You said that teachers get in-service training, now what about teachers that are just starting their careers now or next year. Is there any training they get maybe while they are at university or...

KI 1: Not at the university, that is university's part. What we do, we wait until the teachers are in our line. If they come, what we do is, we build up a database to find out how many teachers were not trained and those teachers that were not trained, we do in-service training for them or we actually inform them about what was happening, in all the subjects. That is what we do every year. We induct teachers.

Anelly: Is there anything else that you would like to share about implementing the ESD in the Senior Primary English curriculum?

KI 1: Since I already mentioned that English is the official language, we must just improve on the implementation because sometimes it is not specific, and this can be sort of challenging for the teachers. If we can have a proper guideline, if need be, maybe I have a period for that specifically so that we know this period is also implemented into the curriculum then it will be much effective. We are on the broad curriculum system, we can make it specific, then it will be beneficial for all the schools and teachers.

Anelly: The period for? Just for ESD, like we have reading?

KI 1: Yes, like we have reading. Then it will be more specific. You see sometimes when the things are broad it is sort of neglected and you have to be there that to take place, and we don't want that situation. We need to create awareness, on a very constant level and that is what will benefit us at the end of the day.

APPENDIX H: ANALYTICAL MEMO PHASE 3 ANALYSIS

This memo was developed to identify the current status of ESD implementation in the SP English curriculum.

Sub-categories	Comment	Source
Enablers	...Environmental learning are integrated across the curriculum.	DA 1 p, 14
	The first condition for good curriculum management at school level is that all teachers are fully conversant with the curriculum and its implications and with the process of knowledge creation, and are teaching, learning and assessing in a learner-centred way.	DA 1 p, 49
	The fundamental structure of the learning process at all levels is <u>to use the learner’s existing knowledge and ideas, to bring in new knowledge, and to facilitate and direct them in transforming knowledge. Learning processes must always lead to increased understanding or skill, and increased ability to handle knowledge - not to knowledge for its own sake.</u>	DA 1 p, 49
	In order to accomplish the above-mentioned, teachers must be fully conversant with and competent in how to teach according to a learner-centred approach. If they are not familiar with the approach, or have difficulty in implementing it, professional support must be provided.	DA 1 p, 49
	It is highly advantageous when a subject teacher teaches the same class throughout a phase. This ensures stability and continuity for the learners. The teacher gets to know the learners and their families well and can consequently do better learner-centred teaching. The teacher also gets an overview of the curriculum for a phase and can therefore better plan and organise learning throughout that phase. May also be a constraint.	DA 1 p, 50
	Co-curricular activities should be organised to support particularly important areas of learning or to supplement areas of learning with limited time in the timetable.	DA 1 p, 52
	language under-grounds the entire curriculum: the stories that learners read and listen to, the topics they deliberate on, the role plays they perform, will all have cross curricular links with issues such as the environment, health (HIV and AIDS), information and technology, human rights, the rights of children, personal and community values including gender, social justice and democracy.	DA 2 p,1
	The syllabus promotes: to develop greater awareness of health and population issues, democracy and human rights, information and technology, HIV and AIDS, the environment and individual responsibilities regarding these and to enable learners to talk, read and write	DA 2 p,2

	about them.	
	Links to Other Subjects and Cross-curricular Issues The cross-curricular issues including Environmental Learning	DA 2 p,2
	The approach to teaching and learning is based on a paradigm of learner-centred education	DA 2 p,4
	The school should partner and share the responsibility for in-service training of staff members.	DA 3 p, 5
	Teachers should share information, experiences and strategies they were equipped with during training.	DA 2 p, 5
	Subject Heads should: ...facilitating and creating opportunities for team building and continuous professional development in order to improve the teaching competence of the teachers involved.	DA 3 p,5
	...identify needs for support from Advisory Teachers and arrange with Regional Office for input	DA 3 p,6
	...discuss the outcome of the Teacher Self-Evaluation (TSE) with individual teachers and give support, guidance and assistance English Second Language teachers assist new and beginner teachers in all respects	DA 3 p, 6
	...allocate mentor teachers to beginner teachers and conduct an effective induction programme for new teachers	DA 3 p, 6
	...provide school-based staff development programmes to the subject teachers	DA 3 p, 6
	The subject teacher facilitate teaching and learning both inside and outside the classroom in order for the learners to acquire the necessary knowledge and skills	DA 3 p, 7
	... consult the nearest resource centre in connection with training opportunities and sources of information, and teaching and learning materials	DA 3 p, 7
	Advisory Teachers (ATs) have extensive knowledge of the relevant subject areas and their responsibilities are, amongst others, to ensure quality in education through the rendering of liaison services and subject guidance. The school should fully utilise the expertise provided by ATs.	DA 3 p,8
	Cluster Subject Groups The purpose of cluster subject group meetings is to improve efficiency, build capacity and empower teachers. Attending and participating in cluster subject activities can play a positive role in collaborative development and improving quality teaching and learning.	DA 3 p,8
	During school-based studies , the class teacher plays a crucial role in assisting the student teacher and modelling good practice.	DA 3 p,8

	One language teacher per grade or constraint	TD 2, TD 4
	Reading corners	TD 2, TD 4
	Sitting style to allow for group/pair work	TD 2, TD 4
	Tasks be set from a context or belonging to a theme selected by teachers (could be environmental)	TD 2, TD 4
	Schemes of work derived from the syllabus (EE = CC)	TD 2, TD 4
	Thematic approach – potential to engage learners on ESD topics (has been discouraged though) New scheme being drawn.	TD 3, TD 9
	Encourages learner-centeredness	TD 9, TD 10
	Subject meetings inviting guest speakers as well as feedback platform for workshops attended and ideas sharing.	TD 9, TD 10
	Teachers can inform management if there is need subject related support from Advisory Teachers.	TD 9, TD 10
	Participation in cluster subject activities is encouraged and seen to play a positive role in developing quality teaching and learning.	TD 9, TD 10
	Yes. Example when we have sports as a theme, topic athletics, I always incorporate cleanliness of the environment through various activities to stress its importance.	T 1
	Yes. Environment is part of your daily life. Topics in English deals (sic) with environ studies (Our environment). Learners have to be made aware at an early age.	T 2
	Yes. I use objects such as trees as my teaching aids.	T 3
	Yes. I use plants, vegetables, waste material to incorporate in the lesson.	T 4
	Yes. For example, if the content is too general, I ask learners if they have had the experiences before, even if they never have the experience, I could ask them a question that would trigger their imaginations and thoughts about the matter under discussion.	T 5
	Yes. Presenting a passage on birds for example and test them their level of comprehension.	T 7
	Yes. I incorporate environmental content through group discussions and debate. I also give the learners an opportunity to compose poems on issues affecting the environment e.g. water pollution, Learners read stories and passages related to the environmental content.	T 8
	Yes. Learners reading passages on water, pollution, road safety. We have class discussions, complete worksheets.	T 9
	Yes. We get learners to read articles pertaining the environment such as poems, comprehension passages and during that process, we discuss and answer questions in the skills of listening, spelling and writing essays etc.	T 10
	Yes. Reading passages about environmental issues. Discussions or speaking topics on environmental issues.	T 13

	Yes. Lessons as structured throughout the term are based on themes, these themes include five animals and the environment, care and conservation just to name a few. All reading, writing, speaking and listening materials should be done according to these themes.	T 15
	Yes. I use real life experiences in my lessons by relating English topics to other subjects.	T 16
	Students need a personal connection to the material. Relevant through showing how theory can be applied in practice, establishing relevance to local cases, relating material to everyday applications in current newsworthy issues.	T 17
	Yes. I make use of a passage which deals with the environment. After reading the passage learners identify environmental objects (tangible). I further exploit the text through targeted questioning techniques which bring environmental issues (aspects) to the fore.	T 18
	When I teach grammar, I link a competency to such as reading to an environmental issue. For instance, I would have a reading comprehension passage about the effects of pollution.	T 19
	In English you include it in speaking, listening and reading as well as writing skills.	T 20
	Yes. When doing reading comprehension, I use texts with environmental awareness content.	T 22
	Yes. How to care for the environment.	T 23
	Yes. Weather chart, It will be partly cloudy and not with isolated thundershowers Teach learners about temperature.	T 24
	Yes. I use reading materials that are based on the environment. Do projects on different topics of the environment to create awareness and to arouse their prior knowledge and experiences.	T 25
	Yes. Learning through experiences has both process and outcome. Environmental contents are valuable for several reasons. They provide learners with opportunities for learning in real situations, connect new learning to learners' prior knowledge.	T 26
	Yes. Give learners a passage to read on about e.g. useful plants, then they can either underline/circle all nouns or verbs in the passage. Even select a paragraph or two for their dictation piece of work.	T 27
	Yes. In most of my English lessons, I incorporate environmental issues such as nature and social issues. My listening comprehensions I would always take a passage from latest newspapers and current news. I am very passionate about nature and always have discussions for speaking on this.	T 28
	Yes. I use environmental topics in my reading and listening	T 29

	activities.	
	Yes. Some of my reading materials are based on topics related to the environment. Once the passage, story etc. is read, we discuss the content. This creates awareness amongst learners.	T 31
	Yes. Through integration across the curriculum e.g. using the theme and topic to set up mathematic questions in problem solving/English sentences/arts drawing and pictures etc.	T 32
	Yes. If there is a text dealing with the environment we will read it and answer questions from it.	T 33
	Yes. Comprehension about the environmental themes. Vocabulary – explain more about the word – elaborate	T 37
	Yes. Learners will for instance write about environmental problems in particular pollution. They choose a topic from given topics to write an essay: water pollution, ground pollution, noise in their environment or any of their choice.	T 38
	Yes. According to the thematic approach, it is easy to incorporate it in our teaching by giving a listening comprehension, oral or continuous writing on the topic.	T 39
	Yes. It was offered during my 8 years of teacher training in the various subjects.	T 1
	Yes. During our Bed training at UNAM and during the introduction training of the new curriculum of the Ministry of Basic Education Arts and Culture’s new syllabus in English as a 2 nd Language conducted by Ms [name withheld] / Education Officer for English in 2015 at van Rhyn Primary School in Windhoek.	T 10
	Yes. Last year by Khomas Environmental Education Programme for one day.	T 11
	Yes. During my four years (2012-2015) at tertiary institution (UNAM) by Ms [name withheld] and Mrs [name withheld].	T 15
	Yes. From UNAM for 4 years. Mostly throughout the 4 years of training.	T 16
	Yes. Many years ago, through the Ministry of Education.	T 18
	Yes. 2013-2014, University of Namibia Honours in Education (English and Social Studies)	T 19
	Yes. The training was offered when I was at the college, it was a three-year course.	T 20
	Yes. UNAM English Language Education module	T 24
	<u>No</u> . But for the English teacher it is very easy to include it in daily teaching with prescribed curriculum. And if you are passionate about environmental issues, then you include it in most of your modules.	T 28
	<u>No</u> . As a language teacher it’s very easy to incorporate/ include it in my daily lessons to be taught.	T 30
	Yes. At college (Windhoek College of Education), known as the	T 35

	teacher college.	
	Yes. It was part of my teacher training when we were dealing with components of the syllabus.	T 38
	Yes. Two years ago, by language facilitators for a week.	T 42
	I see very good potential because the English subject allows discussions/themes about anything. So a greater emphasis can be put on sustainability.	T 5
	Education is important for a country to grow e.g. learners to know how to e.g. use water sparingly. People will be educated/made aware of socioeconomic scenarios of the country. People who are not educated don't have clues about these facts.	T 9
	I see this policy as very helpful as it is about educating of informing the learners (the nation) at large about how to sustain our natural resources (environment) in a manner for our future generation. We will use our resources wisely. An educated generation will use resources sparingly.	T 11
	I see the potential whereby themes especially the ones of sustainable development in English be linked to our local issues especially protecting and taking care of our resources. English is the national language therefore having themes of SD will enable a lot of learners to be captivated and informed.	T 19
	If we all do our parts in making sure that the nation (not only learners) are well informed about sustainable development, Namibia's goal of sustainable development will be attained.	T 22
	It will help the learners to develop ideas on how to take care of the environment and develop the country without harming the environment. Learners will create awareness and educate their communities at large.	T 25
	Learners will be exposed to the idea of at a very early stage of their lives. This will groom them so that in the future they are able to plough back the knowledge gained to develop the country. Learners will be more aware and open to the concept.	T 31
	It will help learners to acquaint themselves as young as they are with how a country develops.	T 33
	It will highly contribute to a generation of educated citizens. People who always see the opportunity to learn and develop themselves. It will also reduce problems in societies and communities.	T 36
	It's a good thing and it will teach our learners who are future leaders the way how to take care of our natural resources and to develop the country economically.	T 40
Constraints	One language teacher per grade <i>or enabler</i>	TD 2, TD 4
	No. Can't recall	T 27

	No. Not fully successful, this is because our curriculum is not flexible, meaning, it does not provide for teachers to make vital changes to the policies that guide us. Inclusion is supposed to depend on what cases I experience in the classroom. At the end of the day I have to use the same assessment documents for learners of different abilities.	T 5
	No. People have identified the risk and challenge we face e.g. soil erosion, overgrazing, soil degradation, deforestation etc. and people do not care for and managing our natural resources in a sustainable way, so that our future generations can use it.	T 11
	No. A lot of work has to be covered in English and it's a subject many learners struggle with due to poor reading and writing skills, so finding the time to incorporate more content can be difficult. Also finding suitable resources can be challenging.	T 13
	Yes. I have challenges as well; firstly, the environment some of our learners find themselves in is sometimes a challenge in itself and its sometimes difficult for them to comprehend our environmental issues that we deal with in Namibia.	T 28
	In any lesson one finds challenges, in environmental issue the challenge I found is that the learners find it difficult to cope with in some environmental factors, due to reasons I haven't found solutions yet.	T 30
	No. I feel not enough emphasis is put on the concept. Teaching materials/content included on concepts very limited. Learners are actually not aware of the term: sustainable development	T 31
	No. Kids at this age are still so young to understand why we introduce certain subjects into another. With bigger kids it will be more successful.	T 35
	No. The resources are not enough to cater for learners at different levels in their learning.	T 41
	It could be useful if more teachers are provided with resources and /or training. At the moment I view it as a nice ideal but I'm not sure it's being implemented in a practical way.	T 13
	The environment is the greatest source that Namibia has. Teaching through environmental learning not only enable learners to learn within the appropriate context but also stimulate the learners' minds to preserve our resources.	T 18
	Great importance, more ESD should be emphasised in workshops, seminars, meetings, teacher training colleges.	T 24
	Since last year, the teachers were introduced to the SDG 4 Goal, which relates to ESD, and the teachers are informed to make sure that the cross-curricular teaching must take place.	KI 1
	, we must just improve on the implementation because sometimes it is not specific, and this can be sort of challenging for	KI 1

	the teachers. If we can have a proper guideline, if need be, maybe I have a period for that specifically so that we know this period is also implemented into the curriculum then it will be much effective.	
	You see sometimes when the things are broad it is sort of neglected and you have to be there that to take place, and we don't want that situation.	KI 1
	That was the only time I was introduced to the programme.	TI 1
	Yes, but it wasn't much as I think it's supposed to be... done or...	TI 1
	Honestly, ah... our subject advisors don't really engage us or enlighten us or give us information on how to incorporate and...now what can I say?	TI 1
	I think it's a good idea but maybe they just need to...to give us some workshops or training on how to incorporate these types of programmes that are related to environment.	TI 1
	Nothing much but I look forward to engage more in such activities related to the environment, environmental education.	TI 1
	Uh uh...apart from when we have readathon the ministry, that department that deals with readathon the libraries, they always send us pamphlets and give us themes to select and read about this this year, the readathon is about for example saving water, or animals and stuff like that. Apart from that, that's all I know.	TI 2
	The last visit was probably three years ago, we haven't got any visit from them.	TI 2
	I would like them like when they are choosing textbooks, or they are in touch with people who are...who produce books, they should ask them to include such topics in the textbooks because then the textbooks that they prescribe, sometimes they do not have such topics then we are forced to abandon them a bit and go and look for information from elsewhere that has to do with environment. So they just order books but when you flip through there is nothing to do with environment and then you need also to teach them that. So sometimes we have to look on our own, internet so, what I would like to them is to also liaise with the authors of textbooks and have a workshop with them or training them to say these are the aspects that we need the learners to know so that when they produce books they don't have to struggle.	
	In English curriculum, apart from in English they can also include it in other subjects. They can include also this ESD in other subjects such as Mathematics and other to say how to sustain these resources that we have. It is very important that they are sustained, used sustainably.	TI 2
	Ok, subject advisors are, if I'm not mistaken, I don't think the	TI 3

	English department for primary school has a subject advisor at the moment	
	I didn't even know there was a policy so now that I see it there and you keep referring to policy	
	We do have one very new teacher and another one who this is his second year or his third year I think and I quite often help them with certain things. I'm not a subject head by the way so they often come to me and ask, 'We don't understand this, how are we supposed to do it	TI 3
	I was not really introduced, it's just as you are learning, as you are going, as you are living day-to-day you come to teach it unknowingly.	TI 4
	To be honest no real support	
	Well I will say, ah...in theory the support is there. Why I am saying in theory is because according to the policy that is what is supposed to happen but maybe because of financial means and so on, that kind of support is not readily available. Workshops that I used to see many years ago which were a current thing are not happening.	TI 5
	the quality of the textbook books for example that we are using currently, comparing them to the, you know I am from the old dispensation, comparing the quality and relevance of the materials that we are using today. It seems to the materials we are using today do not follow suit, they do not address for example the environmental issues as we are talking about.	TI 5
	It seems to me nowadays it is a matter of whom do I know, whose book will I approve and we neglect the quality of books that are being introduced. So the quality of books must address English across the curriculum, taking environmental education into consideration.	TI 5
	Normally at my level because I am an ordinary teacher my subject advisor as the person that I would run to first if I have an issue within my subject is my HOD.	TI 6
	not all of us use cross-curricular topics.	TI 7
	I really don't have a good understanding of what it is and how to properly answer on it, so ja, I don't really know that much about it.	TI 8
	at least it made me aware that there is something like that but other than that I still haven't grasped really how to apply it and use it within my context.	TI 8
	No, I wasn't (introduced to ESD).	
	For the English curriculum, I feel the English curriculum is too broad, it's so broad that sometimes some of the content that have to be taught are bypassed because some of the terms are	TI 8

	too short and they have a lot of things, so you just like mention it in a lesson and then you go by, so if it's possible for them to make sure that, if ESD can be made within all the terms and all {not audible} because it's just within one term that you can do all of this but sometimes you just like bypass the topic because you just want to get the rest of the content.	
	I started practising when I came into the profession, it was never really brought to my understanding or to my attention	TI 10
	what is more disappointing is that it is really not taking place on the ground	TI 5
	Not directly, no. I cannot recall any time where we had a discussion actually about ESD.	TI 5
	I think I was not introduced,	TI 11
	No, it was just done in a partly manner, whereby sometimes we were just given assignments, and then you research on your own.	TI 11
	I think I need support from the advisors, ah...in terms of I think in terms of everything that needs to be done from the beginning, it's like we are starting afresh now. Because ah... I've realised that maybe sometimes I make mistakes and then I need a senior person to advise me.	TI 11
	There is no support at all. We actually don't know who is the advisors (sic).	TI 11
	I would've loved to see my subject advisor more through school and class visits, to ensure that I'm on the right path and doing things the correct way.	TI 12

APPENDIX I: CATEGORIES CODING PHASE 3 ANALYSIS

Anelly: Good morning Sir.

KI 1: Good morning ma'am.

Anelly: Thank you very much for agreeing to take part in my study. I hope the interview is going to be short. The first question that I have for you is, what is your understanding of ESD?

TI 10: It's..., What does ESD stand for?

Anelly: Education for Sustainable Development

TI 10: Ok fine. My understanding would be that ESD is to ensure inclusive and equitable education, and to promote lifelong opportunities for all citizens.

Anelly: Tell me about your position now here and how it links to ESD.

TI 10: I am a senior education officer, responsible for languages, and I am also dealing with the SDG 4 programme which directly involves education. Education comes in and this education is part of what I am doing. That's where ESD comes in and it is also linked to being an advisor for languages. Being the advisor for languages means that we have to support the teachers that are dealing with education and teaching at schools. It entails all the aspects that relate to ESD. We also have a part that we play as educators in ESD for being the senior education officers or being the education officers for that matter. It's part of education so it is included in the packet.

Anelly: From your experience, how is the ESD being implemented in the curriculum, specifically SP English curriculum in the Namibian schools, specifically in the Khomas Region?

TI 10: Luckily all the schools are offering English and like I said in the beginning, it's teaching and education. English is part of the curriculum, English must be taught in all the schools, English is the official language, English is the language that we use to communicate in, in the Republic of Namibia. Interesting enough, most question papers are set in English except the *indigenous* (my italics) languages. English is the language that must guide the learner in the school. Since we deal with education, since we deal with creating opportunities for all the people, English is part of that. That's where ESD comes in. English is the bottom-line, English is used to educate the Namibian nation. That's where it comes and teaching learning takes place in schools, we are responsible for schools, that's where it comes in since it deals with education.

Anelly: How are the teachers implementing the policy?

TI 10: Since last year, the teachers were introduced to the SDG 4 Goal, which relates to ESD, and the teachers are informed to make sure that the cross-curricular teaching must take place. They must make sure that all the goals are covered in all the lessons that they are giving. This must automatically happen at all the schools. English is happening, ESD is taking place, it is part

of SDG and teachers are sort of compiled to make sure that they cover all the seventeen areas of SDG. It must happen at all schools and it's happening.

Anelly: How does your sub-section ensure that the policy I being implemented, I mean, have the teachers gotten any in-service training, the English teachers?

TI 10: Not only English teachers, all the teachers but since we are specifically talking about English, you see, ESD links to SDG covers all the subjects. All the subjects are included and teachers have been trained, they have been informed. They were invited to the launch of the SDG, they are well informed about what is happening. As we visit schools, we make sure that...I'm responsible for languages, other teachers are responsible for other subjects so we go as a team, we do visit as a team to ensure that what we are preaching is implemented at the school and that is also how we advise teachers, to make sure that this is implemented at all the schools.

Anelly: How often do you visit the schools?

TI 10: We have a program that we draw in the beginning of the year, we just make a division between the secondary schools and the primary schools, but I can tell you that every term we visit 25% of schools. Although we focus on under-performing schools, we can also do unannounced visits, we can do random visits to the schools that are also doing very well. That is what we do. **We visit schools quite frequently to make sure that the standard also is maintained and enhanced at all the schools.**

Anelly: You said that teachers get in-service training, now what about teachers that are just starting their careers now or next year. Is there any training they get maybe while they are at university or...

TI 10: Not at the university, that is university's part. **What we do, we wait until the teachers are in our line. If they come, what we do is, we build up a database to find out how many teachers were not trained and those teachers that were not trained, we do in-service training for them or we actually inform them about what was happening,** in all the subjects. That is what we do every year. We induct teachers.

Anelly: Is there anything else that you would like to share about implementing the ESD in the Senior Primary English curriculum?

TI 10: Since I already mentioned that English is the official language, **we must just improve on the implementation because sometimes it is not specific,** and this can be sort of challenging for the teachers. **If we can have a proper guideline, if need be, maybe I have a period for that specifically so that we know this period is also implemented into the curriculum then it will be much effective.** We are on the broad curriculum system, we can make it specific, then it will be beneficial for all the schools and teachers.

Anelly: The period for? Just for ESD, like we have reading?

TI 10: Yes, like we have reading. Then it will be more specific. You see sometimes when the things are broad it is sort of neglected and you have to be there that to take place, and we don't want that situation. We need to create awareness, on a very constant level and that is what will benefit us at the end of the day.

Anelly: Thank you very much Sir for your time.

APPENDIX J: LETTER OF PERMISSION TO THE PERMANENT SECRETARY

PO Box 21009
Windhoek
14 November 2017

The Permanent Secretary
Ministry of Education, Arts and Culture
Private Bag 13186
Windhoek

Dear Ms. Steenkamp

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN KHOMAS REGION

My name is Anelly Ndapewa Malua, and I am a Masters' degree student at Rhodes University (RU) in Grahamstown, South Africa. The research I wish to conduct for my full thesis requires me to interview some key informants within the ministry. These are the person dealing with ESD implementation, and the text book officer at NIED. This research will be conducted under the supervision of Dr. Lausanne Olvitt.

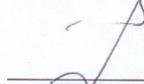
This letter serves to seek formal consent to approach the key people mentioned above. Further, I would be grateful if I may access appropriate documents at the informants' discretion. For this reason, I request your permission to visit these informants within your ministry between January and March 2018 to conduct my research as outlined in my research proposal.

I attach a copy of my research proposal which includes copies of the consent and assent forms to be used in the research process. Once I have received ethical clearance from Rhodes University, I will provide you with the ethical clearance letter. As part of this, I undertake to ensure that the names of the participants will be replaced with pseudonyms although their positions may not warrant much anonymity. The materials I collect as part of the research will be accessible only to myself and my supervisor.

Upon completion of the study, I undertake to provide you and the participants with access to the research findings. If you require any further information, please do not hesitate to contact me on +264 81 253 0835 or on my email: anelly.malua@gmail.com.

Thank you for your time and consideration in this matter.

Yours sincerely


Anelly Ndapewa Malua – Student number: 15M8756
Rhodes University

APPENDIX K: LETTER OF PERMISSION FROM THE PERMANENT SECRETARY



REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

Tel: +264 61 293 3200

Fax: +264 61 293 3922

Enquiries: Mr. C. Muchila/Ms. C.Vries

E-mail: Cavin.Muchila@moe.gov.na/Catherme.Vries@moe.gov.na

Private Bag 13186

WINDHOEK

Namibia

File: 11/1/1

Ms. Anelly Ndapewa Malua

Cell: 081 253 0835

Email:anelly.malua@gmail.com

Dear Ms. Malua

SUBJECT: REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE MINISTRY OF EDUCATION, ARTS AND CULTURE

Kindly be informed that permission to conduct research for your Masters' degree in Education, within the Ministry of Education, Arts and Culture is herewith granted. You are further requested to present the letter of approval to the Director of NIED to ensure that research ethics are adhered to and disruption of normal activities is avoided.

Furthermore we humbly request you to share your research findings with the ministry. You may contact Mr. C. Muchila at the Directorate: Programmes and Quality Assurance (PQA) for provision of summary of your research findings.

I wish you the best in conducting your research and I look forward to hearing from you soon.

Yours Sincerely


Sanet L. Steenkamp
PERMANENT SECRETARY



14/12/17
Date

All official correspondence must be addressed to the Permanent Secretary

APPENDIX L: LETTER OF PERMISSION TO REGIONAL DIRECTOR

PO Box 21009
Windhoek
14 November 2017

The Director
Directorate of Education: Khomas Region
Private Bag 13236
Windhoek

Dear Mr Vries

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN KHOMAS REGION

My name is Anelly Ndapewa Malua, and I am a Masters' degree student at Rhodes University (RU) in Grahamstown, South Africa. The research I wish to conduct for my full thesis requires me to conduct a survey, as well as interview some senior primary English teachers at various clusters in the Khomas Region. This research will be conducted under the supervision of Dr. Lausanne Olivitt.

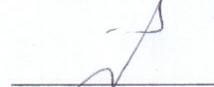
This letter serves to seek formal consent to approach the cluster principals, SP English teachers as well as some key figures within the regional office. Further, I would be grateful if I may access appropriate documents at the teachers' discretion. For this reason, I request your permission to visit your region between January and March 2018 to conduct my research as outlined in my research proposal.

I attach a copy of my research proposal which includes copies of the consent and assent forms to be used in the research process. Once I have received ethical clearance from Rhodes University, I will provide you with the ethical clearance letter. As part of this I undertake to ensure that the names of the participants will be replaced with pseudonyms and that all the material I collect as part of the research will be accessible only to myself and my supervisor.

Upon completion of the study, I undertake to provide you and participants with access to the research findings. If you require any further information, please do not hesitate to contact me on +264 81 253 0835 or on my email: anelly.malua@gmail.com.

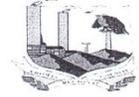
Thank you for your time and consideration in this matter.

Yours sincerely



Anelly Ndapewa Malua – Student number: 15M8756
Rhodes University

APPENDIX M: LETTER OF PERMISSION FROM REGIONAL DIRECTOR



REPUBLIC OF NAMIBIA

**KHOMAS REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE**

Tel: [09 264 61] 293 9411
Fax: [09 264 61] 231 367/248 251

Private Bag 13236
WINDHOEK

File No: 12/3/9/1

Ms Anelly Ndapewa Malua
P.O. Box 21009
Windhoek

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN KHOMAS REGION

Your letter dated 12 December 2017 on the above topic has reference.

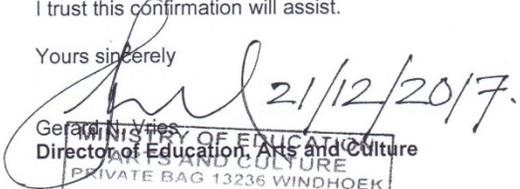
Permission is hereby granted to you to conduct research for your Master of Education (Environmental Education) with topic research title "A morphogenetic study of Education for Sustainable Development policy implementation in Senior Primary English teaching in Namibia: Case study of Khomas Region".

The following must be adhered to:

- Permission must be granted by the School Principal;
- Teaching and learning in the respective schools should not be disrupted;
- Teachers who will take part in the research should do so voluntarily;
- A copy of your thesis with the findings/recommendations must be provided to the Directorate of Education, Arts and Culture, Khomas Regional Council.

I trust this confirmation will assist.

Yours sincerely


General Director
Ministry of Education, Arts and Culture
Directorate of Education, Arts and Culture
PRIVATE BAG 13236 WINDHOEK

21-12-2017

DIRECTOR
KHOMAS REGION

APPENDIX N: LETTER TO CLUSTER CENTRE PRINCIPALS

PO Box 21009
Windhoek
26 January 2018

The Cluster Center Principal
Bloom Cluster
PO Box 8315
Windhoek

Dear Mrs. Hamata

REQUEST FOR PERMISSION TO CONDUCT RESEARCH WITH ENGLISH TEACHERS WITHIN YOUR CLUSTER

My name is Anelly Ndapewa Malua, and I am a Masters' degree student at Rhodes University (RU) in Grahamstown, South Africa. The research I wish to conduct for my full thesis requires me to firstly administer a questionnaire amongst the English teachers in the Khomas Educational Region, and thereafter do follow up interviews with some of them. I also intend to examine the schemes of work and lesson preparation forms of the teachers that I will interview. This research will be conducted under the supervision of Dr. Lausanne Olvitt.

This letter serves to seek formal consent to approach the participants mentioned above. Further, I would be grateful if I may access appropriate documents at the participant's discretion. For this reason, I request your permission to visit the teachers when they have cluster meetings between February and March 2018, to conduct my research as outlined in my research proposal.

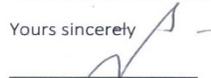
I attach a copy of my research proposal which includes copies of the consent and assent forms to be used in the research process. I have also attached the ethical clearance letter from Rhodes University, as well as permission letters from the Permanent Secretary and the Regional Director to conduct the research. I have also attached a letter to the participants which I would like to request you to share with the respective convenor, as well as with other schools within your cluster.

As part of this, I undertake to ensure that the names of the participants will be replaced with pseudonyms for the sake of anonymity. The materials I collect as part of the research will be accessible only to myself and my supervisor.

Upon completion of the study, I undertake to provide you and the participants with access to the research findings. If you require any further information, please do not hesitate to contact me on +264 81 253 0835 or on my email: anelly.malua@gmail.com.

Thank you for your time and consideration in this matter.

Yours sincerely


Anelly Ndapewa Malua – Student number: 15M8756
Rhodes University

APPENDIX O: LETTER TO PARTICIPANTS

PO Box 21009
Windhoek
26 January 2018

SP English Teachers
Khomas Region

Dear colleagues

Re: Invitation to participate in a research study

You are invited to participate in a research study entitled *A morphogenetic study of ESD policy implementation in Senior Primary English teaching in Namibia. A case of Khomas Region*. The aim of this research is to try and establish how the ESD is being implemented in the English curriculum at this phase. Your participation is important as the findings will help guide both policy makers and practitioners on how best the policy can be implemented.

The research will be undertaken through document analysis, survey and semi-structured interviews. Your participation in the research is anonymous and your identity will not be revealed. The collection of this data will require between two to four weeks.

If you agree to participate, we will explain in more detail what would be expected of you, and provide you with the information you need to understand the research at a meeting. These guidelines would include potential risks, benefits, and your rights as a participant. I have attached the ethical clearance from University, as well as letters of approval from the Permanent Secretary and the Regional Director to conduct the research.

Participation in this research is voluntary and a positive response to this letter of invitation does not oblige you to take part in this research. To participate, you will be asked to sign a consent form to confirm that you understand and agree to the conditions, prior to any data collection tool detailed here, e.g. survey or interview commencing. Please note that you have the right to withdraw at any given time during the study.

Thank you for your time and I hope that you will respond favourably to our request.

Yours sincerely,


Anelly Ndapewa Malua – Student number: 15M8756
Rhodes University

APPENDIX P: PARTICIPANTS' INFORMED CONSENT FORM

INFORMED CONSENT FORM

Research Project Title:	A morphogenetic study of ESD policy implementation in Senior Primary English teaching in Namibia – A case study of the Khomas Region
Principal Investigator(s):	Anelly Ndapewa Malua

Participation Information
<ul style="list-style-type: none">• I understand the purpose of the research study and my involvement in it• I understand the risks and benefits of participating in this research study• I understand that I may withdraw from the research study at any stage without any penalty• I understand that participation in this research study is done on a voluntary basis• I understand that while information gained during the study may be published, I will remain anonymous and no reference will be made to me by name or student number• I understand that questionnaires and other data collection requirements particular to this research, e.g. document analysis, voice recording may be used• I understand and agree that the interviews will be recorded electronically• I understand that I will be given the opportunity to read and comment on the transcribed interview notes• I confirm that I am not participating in this study for financial gain

Information Explanation
The above information was explained to me by: Anelly Ndapewa Malua
The above information was explained to me in English and I am in command of this language:

Voluntary Consent	
I,	
hereby voluntarily consent to participate in the above-mentioned research.	
Signature:	Date: / /

Investigator Declaration	
I, Anelly Ndapewa Malua, declare that I have explained all the participant information to the participant and have truthfully answered all questions asked to me by the participant.	
Signature:	Date: / /

APPENDIX Q: RHODES UNIVERSITY ETHICS CLEARANCE FORM



RHODES UNIVERSITY

Grahamstown • 6140 • South Africa

EDUCATION FACULTY • PO Box 94, Grahamstown, 6140
Tel: (046) 603 8385 / (046) 603 8393 • Fax: (046) 622 8028 • e-mail: d.wilmot@ru.ac.za

PROPOSAL AND ETHICAL CLEARANCE APPROVAL

Ethical clearance number 2017.12.08.07

The minute of the EHDC meeting of 05 December 2017 reflect the following:

**2017.12.8 CLASS B RESTRICTED MATTERS
MASTER OF EDUCATION RESEARCH PROPOSALS**

To consider the following research proposal for the degree of Master of Education in the Faculty of Education:

Ms Anelly Malua (15M8756)

Topic: A morphogenetic study of ESD policy implementation in Senior Primary English teaching in Namibia – A case study of the Khomas Region.

Supervisor: Dr L Olvitt

Decision: *Approved*

This letter confirms the approval of the above proposal at a meeting of the Faculty of Education Higher Degrees' Committee on the 5 December 2017.

The proposal demonstrates an awareness of ethical responsibilities and a commitment to ethical research processes. The approval of the proposal by the committee thus constitutes ethical clearance.

Sincerely

Ms Zisanda Sanda
Secretariat of the EHDC, Rhodes University
8th December 2017