



**An evaluation of Life Orientation as a pathway to Environmental Sustainability: The case of Sithokozile Secondary School in KwaDabeka (KZN)**

**Submitted in fulfilment of the requirements of the Degree of Management Sciences,  
Specialising in Public Administration**

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## DECLARATION

I, Phindokuhle Khoza, declare that this dissertation is the result of my investigation and research and that this has not been submitted in part or full for any degree or any other degree to any other University.

Signed:           N. P Khoza          

Date: 18 March 2025

## ABSTRACT

Life Orientation is a fundamental subject required for attaining the National Senior Certificate (NSC) in South Africa, playing a crucial role in shaping learners' understanding of personal and social responsibility toward environmental sustainability. This study evaluates Life Orientation as a pathway to environmental sustainability at Sithokozile Secondary School in KwaDabeka (KZN).

Employing a quantitative approach rooted in positivism, the study utilised systematic random sampling to select students aged 16 and older from a class register provided by the form teacher, resulting in a sample size of 110 students. This methodology was chosen to quantify the relationship between Life Orientation skills and environmental sustainability practices.

The findings reveal that learners effectively apply Life Orientation skills to promote environmental sustainability. For instance, 62% of respondents reported engaging in interpersonal discussions, reflecting their sense of social responsibility. However, a significant concern arises as nearly half (44.5%) acknowledged their involvement in the destruction of plants and trees for urbanization, highlighting a conflict between their stated values and actual behaviours.

These results underscore the potential of Life Orientation to foster sustainable practices while identifying critical gaps in learners' understanding that require further education. Recommendations for enhancing the curriculum and creating a more sustainable school environment are discussed, aiming to bridge the gap between values and actions.

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Finally, my heartfelt gratitude to this study's participants and Sithokozile Secondary School for opening their doors to me.

## **DEDICATION**

This dissertation is dedicated to my late father, Mr Jabulani Musawenkosi Ndlovu, My late sister, Mrs Busisiwe Purity Ngcamu, my late brother, Mduduzi Brian Ndlovu and my mother, Nomusa Gloria Ndlovu Ngaphandle kwenu angiyilutho, Ndlovu, Gatsheni, Boyabenyathi.

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## LIST OF ACRONYMS

EE	Environmental Education
LO	Life Orientation
PBC	perceived behavioural control
PHM	Public Health Management
SDT	Self-determination Theory
SPSS	Statistical Package for the Social Science
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UN	United Nations

# **CHAPTER 1: INTRODUCTION AND RESEARCH BACKGROUND**

## **1.1 Introduction**

Environmental issues are becoming increasingly pressing in South Africa, where many learners lack adequate orientation regarding sustainability, both within school premises and in the wider community. Ensuring a sustainable environment that promotes the well-being of both learners and teachers is paramount. This study investigates the role of Life Orientation in fostering environmental sustainability, specifically evaluating how it influences learners' attitudes and behaviours toward environmental conservation.

The global environment faces significant challenges due to unfair practices threatening peaceful coexistence. Governments worldwide strive to enhance living conditions, yet persistent environmental crises necessitate addressing their root causes through the education and empowerment of youth. Assessing learners' capacity to make informed decisions about environmental stability is crucial for cultivating a generation that prioritizes sustainability. This study explores how learners in South African schools can leverage Life Orientation to promote environmental sustainability.

This chapter presents the research background, problem statement, research aim, research objectives, research questions, the rationale for the study, the scope of the study, delimitations and limitations, and a summary of the chapters.

## **1.2 Background to the study**

The world continues to grapple with significant disparities in resource distribution. (Joseph, Berdida, Grande, & Lopez, 2021: 2). As the global population steadily increases, currently estimated at over 4.2 billion living in urban areas and projected to reach 6 billion by 2041 (United Nations, 2019), individuals across all societal strata strive for sustainable living amid these demographic shifts.

In this pursuit, people resort to varied means, both ethical and unethical, compounded by the looming threats of climate change which disproportionately affect economic activities such as agriculture and natural resource management (Lankes, Soubeyran, and Stern, 2022: 1). Eubanks

(2018: 10) argues that technological interventions aimed at welfare and poverty alleviation often inadvertently exacerbate inequality and curtail the rights and mobility of vulnerable groups, including the poor and working-class.

Governments worldwide, including South Africa and its eThekweni Municipality in KwaZulu-Natal, prioritize sustainable development in their policies and agendas (Chauhan and Batta, 2016: 2). Achieving these goals, however, requires addressing challenges such as corruption, which undermine efforts to secure a sustainable future for generations to come (Lamb and Snodgrass, 2017: 1).

This study aims to evaluate the role of Life Orientation as a pathway to environmental sustainability, focusing on fostering human accountability and moral development (Magano and Rambado, 2012: 401; Ma-Kellams and Blascovich, 2013: 2). In today's rapidly changing environmental landscape, societies face myriad challenges, including public health crises, waste management issues, and urbanisation pressures (Chanda-Kapata et al., 2016: 3; Gustafsson, 2018: 21). Tang et al. (2018: 1) stress the importance of raising awareness and taking proactive steps to achieve sustainable environmental development. Within the South African context, attitudes towards politics, human rights, health, and physical fitness vary widely (Dario et al., 2013: 97). In eThekweni and similar settings, learners often rely on Life Orientation to navigate these complexities, highlighting its crucial role in shaping societal values and environmental stewardship (Schneider and Schupp, 2014: 767).

### **1.3 Problem statement**

Contemporary environmental challenges such as poverty, global warming, drought, and unemployment have rendered communities increasingly vulnerable, resulting in significant ecological instability (Sanchez, 2018: 267). Life Orientation plays a crucial role in equipping learners with the knowledge and skills necessary to address these pressing issues. Human activity is often cited as the root cause of environmental degradation (Garbie, 2017: 417), therefore, fostering responsible behaviour through education is essential for societal improvement.

Ecosystems provide vital services that enhance life quality, yet humanity's pursuit of progress has led to risks like deforestation and ozone depletion, adversely affecting air quality and overall environmental health (Shortall & Kharrazi, 2017: 101). Climate change presents both environmental and social challenges (Howell & Allan, 2016: 813–831), and studies indicate that

environmentally conscious parents and teachers can effectively nurture sustainability mindsets in young learners (Chawla & Gould, 2020: 619–642).

Generally, young people can play a significant role in sustainability. This is because when young people participate in environmental sustainability, they do so to mitigate risk in the future (Burgess et al., 2022:1267-1270). Equally, evidence exists that climate change could lead to decreased mental well-being amongst young people; hence it is often viewed as a psychological threat (Sanson, Wachs, Koller and Salmera-alo, 2019: 15-138). It is also important to note that, young people are generally viewed as leaders for the future, hence they should develop reasonable competencies to address the complex environmental sustainability problem (Periera and Freire, 2021: 1). However, the literature reveals a notable gap in research examining the role of youth during climate change (Sanson, 2019). This study seeks to evaluate Life Orientation as a pathway to environmental sustainability, with a particular focus on how it influences learners' perceptions and actions. The following section outlines the aim and objectives of the research study.

#### **1.4 Aim and Objectives**

The study aims to evaluate how Life Orientation studies act as a catalyst for promoting environmental sustainability among the youth, using Sithokozile Secondary School in KwaDabeka (KZN) as a case study. To achieve this aim, the following sub-objectives will be pursued:

**Sub-objective 1:** To identify the social influences of Life Orientation studies on promoting environmental sustainability.

**Sub-objective 2:** To determine how equipping young people with Life Orientation skills helps mitigate environmental crises.

**Sub-objective 3:** To assess how learners can effectively apply their Life Orientation skills to influence environmental sustainability; and

**Sub-objective 4:** To provide recommendations for youth orientation programs to enhance their influence on environmental sustainability.

## **1.5 Research Questions**

In pursuit of the research objectives outlined above, the study poses the following questions:

1. What are the social impacts of Life Orientation studies on action for environmental sustainability?
2. How do Life Orientation skills among young people contribute to addressing environmental crises?
3. To what extent can learners utilize their Life Orientation skills to influence environmental sustainability?
4. What recommendations can be made for youth orientation programs to enhance their influence on environmental sustainability?

## **1.6 Significance of the Research**

This study has four key areas of significance: for the youth, communities, the broader environment, and academic research.

### **1.6.1 Significance for the Youth**

This study is significant as it encourages the active involvement of youth in sustainable natural resource management. Engaging young individuals in environmental activities nurtures their current participation and fosters a lasting commitment to sustainability. The inclination to engage in sustainable practices, developed during youth, often continues into adulthood, highlighting the long-term benefits of early involvement. Therefore, this study underscores the importance of instilling knowledge about sustainable environmental management from a young age to cultivate lifelong ecological stewardship.

### **1.6.2 Significance for the Communities**

Given the abundant natural resources and favourable environmental conditions in the region, this study emphasizes the importance of environmental preservation for current and future generations. By fostering a sense of responsibility among youth, the study explores how they can actively contribute to safeguarding their community's natural resources and environment.

### **1.6.3 Significance for the environment and society**

The world faces significant environmental challenges, including climate change, pollution, and biodiversity loss, largely driven by human activities and unsustainable consumption patterns. This study highlights the critical role of youth in raising awareness about these issues, which is essential for improving environmental, social, and economic health. A healthy population and economy are foundational for achieving Sustainable Development Goals.

### **1.6.4 Academic significance**

This research contributes to the academic literature on youth orientation and its potential to influence environmental change. The findings will be disseminated through roadshows in secondary schools across the eThekweni metropolitan area in KZN. Additionally, the results will be shared through workshops within the Department of Basic Education and will culminate in a Master's thesis and publications in academic journals focused on environmental sustainability.

## **1.7 Scope of the study**

This section discusses the delimitation and limitations of the study.

### **1.7.1 Delimitation of the field study**

This study evaluates how Life Orientation studies catalyse the promotion of environmental sustainability among youth. This research is limited to one secondary school in KwaDabeka, KZN, and does not include other secondary schools in KwaZulu-Natal or other provinces in South Africa.

### **1.7.2 Limitations**

One limitation of this study is the potential lack of time and willingness among some learners to complete the questionnaires, which may affect the reality of the sample. Additionally, the research is confined to a single secondary school in KwaDabeka. To mitigate these challenges, sufficient time was allocated for learners to complete the questionnaires. This approach aimed to allow the researcher to explain the purpose and significance of the surveys in detail, thereby fostering a greater willingness among respondents to participate.

## **1.8 Overview of the research methodology and design**

In this section, the overview of the research methodology was presented. The research methodology will show how the research has been designed. It also highlights the sampling methodology, the questionnaire, data collection, and the techniques used to analyze the data.

### **1.8.1 Research Approach and Design of the Study**

For this study, a quantitative approach rooted in positivism has been adopted. This approach was selected to establish links between variables within a representative sample using statistical techniques. By employing this method, the study aims to achieve precise and reliable measurements, facilitating robust statistical analysis. Furthermore, exploratory and descriptive designs were chosen, providing pertinent information to inform the initial research. Another reason for selecting this research design is its capacity to explore new researchable ideas, facilitating a deeper understanding for the researcher.

### **1.8.2 Target population and sample size of the study.**

Sekaran and Bougie (2013: 240) define population as the entire group of people, events, or things a researcher wishes to investigate. Typically, a sample is drawn from this population (Saunders, Lewis & Thornhill, 2009). In this study, the target population consisted of learners from Sithokozile Secondary School, with a sample size of 110 learners. This sample size was determined based on various guidelines. For instance, Brynard et al. (2014: 57) note that there are no fixed rules for determining sample sizes, only suggestions for what percentage of the population should be represented. Additionally, Maree (2007: 178) highlights the need for researchers to consider practical factors such as time and cost when deciding on sample size.

### **1.8.3 Sampling methods**

Sampling methods can be divided into probability and non-probability (Saunders, *et al.*: 213). Probability sampling is well-defined as a random selection sampling and non-probability sampling does not follow random selection but relies on researchers' judgmental procedure. For this study, a probability sampling method, specifically systematic random sampling, was employed. In the selection process, students aged 16 and older were chosen. This selection was class-based, with the form teacher providing a class list (class register).

### **1.8.4 Data collection**

In this study, the researcher personally conducted the quantitative data collection activities. Two types of data were collected: primary and secondary. Primary data were gathered through a structured quantitative questionnaire administered to 110 learners at Sithokozile Secondary School. This approach enabled the researcher to obtain direct insights from the participants. Additionally, secondary data were collected to inform the study's aims and objectives, providing context and understanding of existing research linked to Life Orientation and environmental sustainability.

### **1.8.5 Data analysis**

The data collected were analysed using the Statistical Package for the Social Sciences (SPSS), which facilitated the examination of key research questions through various analytical methods. Cross-tabulation analyses and several multivariable statistical techniques were employed to uncover relationships within the data. Additionally, descriptive data analysis was conducted to summarise and present the findings in a meaningful way, while inferential statistics were used to delve deeper into the implications of the results.

### **1.8.6 Validity and reliability**

The lack of ambiguous questions was evident in the consistency of responses. In this study, validity was ensured by using the following methods:

- ✚ Face validity: this is an indication of whether the items being presented in the questionnaire are clear and understandable, and
- ✚ Content validity: indicates whether the measures include a representative set of items that measure the concepts being addressed.

The reliability of the questions and responses was enhanced by the fact that the questions were basic and there were no drastic differences in the answers.

## 1.9 Structure of chapters in the report

This study comprises five chapters. A summary of the study is briefly outlined below:

**Chapter One:** introduces the study's problem statement, offering insight into its intentions, aims, objectives, and scope. It outlines the rationale behind identifying the problem and emphasizes the researcher's commitment to addressing and resolving it.

**Chapter Two:** reviews the literature related to the study. The chapter specifically focuses on life skills and Life Orientation, related theoretical frameworks, and previous studies.

**Chapter Three:** presents the research methodology that was employed. It discusses the research philosophy, research design, population and sampling, data analysis, validity, and reliability of the study.

**Chapter Four:** comprises the presentation and analysis of results. It presents the statistical analysis for quantitative data obtained through questionnaires. It describes how the data was processed into meaningful results.

**Chapter Five:** summarises the study from the literature review and the primary research. Additionally, the recommendations emanating from the study are presented in this chapter, including the areas for further studies related to this research and a conclusion for the study.

## 1.10 Conclusion

This chapter introduced the study and highlighted the problem statement, background, and research aim and objectives. The study focuses on the youth as future leaders of the environment, and how youth orientation prepares the youth for environmental preservation. The focus of the study is Sithokozile Secondary School in KwaDabeka (KZN). The study adopts a quantitative research approach. The study has significance for the youth, local communities, and society at large, as well as academic significance. The next chapter presents the literature review related to the study.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

The previous chapter provided an overview of the study's introduction and background, outlining the research approach. This chapter reviews the literature relevant to the study, starting with the key definitions of concepts such as Life Orientation skills, environmental degradation, and environmental sustainability. It also examines the social impact of Life Orientation on environmental sustainability, explores theoretical frameworks, and assesses how Life Orientation skills can help mitigate environmental crises. Additionally, the chapter discusses strategies for enhancing Environmental Education (EE), environmental sustainability, and empirical literature related to these areas. These topics are discussed in detail in the following sections.

### **2.1 Definitions of Key Concepts**

This section presents the definitions of major concepts in the study. They are Life Orientation skills, environmental degradation, and environmental sustainability:

#### **2.1.1 Life Orientation Skills**

Kaushal (2019: 6) defines life skills as appropriately and responsibly used behaviours in the management of both personal and professional affairs. In the context of this study, Life Orientation skills equip learners with the critical thinking, problem-solving, and decision-making abilities necessary to navigate environmental issues. These skills, acquired through education and real-life experiences, are vital for fostering a generation aware of and responsive to environmental sustainability challenges. Ultimately, such skills are then used to address problems commonly experienced daily in people's personal and professional lives (Kaushal, 2019: 6).

#### **2.1.2 Environmental degradation**

This is defined as the deterioration of the natural environment. It involves the depletion of resources, including biotic and abiotic elements like air, water, soil, animals, and all living and non-living elements that form the environment (Maurya, 2020: 1). For this study, it is essential to understand how learners' Life Orientation skills can contribute to mitigating the factors that lead to environmental degradation. The focus was on how young people actively participate in environmental preservation under the guidance of Life Orientation education.

### **2.1.3 Environmental sustainability**

Environmental sustainability entails meeting the needs of the current generation without necessarily compromising the ability of future generations to meet their own needs (United Nations, 1987). In this research, environmental sustainability was explored through the lens of Life Orientation education at Sithokozile Secondary School. The goal was to evaluate how Life Orientation can serve as a pathway to instil sustainable practices among learners, equipping them to address environmental issues responsibly and ensure long-term ecological balance (EUROPA, 2022).

## **2.2 Theoretical Framework**

This section discusses the relevant theoretical frameworks for Life Orientation and environmental awareness, specifically the self-determination Theory (SDT) and the Theory of Planned Behaviour (TPB).

### **2.2.1 Self-determination Theory (SDT)**

Self-Determination Theory is a motivational framework that emphasizes the role of autonomy in student engagement (Reeve, 2013). According to Deci and Ryan (1985, 2002), self-determination reflects a quality of human functioning centred on individuals' experiences of choice. This concept can be understood as the ability to choose, where choices are a capacity and a fundamental need (Van den Broeck, 2016). In the context of Life Orientation, this theory underscores that when learners feel empowered and autonomous, they are more likely to engage actively with environmental issues. By fostering autonomy and competence through Life Orientation, educators can inspire learners to develop intrinsic motivation for sustainable practices. For instance, when students are encouraged to initiate and lead environmental projects, they are likely to cultivate a deeper commitment to sustainability. Ultimately, SDT highlights the importance of nurturing empowered learners as a pathway to promoting environmental sustainability in schools.

### **2.2.2 Theory of Planned Behaviour (TPB)**

The Theory of Planned Behaviour, proposed by Ajzen (2002), builds on the Theory of Reasoned Action (TRA) developed by Ajzen (2012). TPB offers a framework for understanding how individuals engage in behaviours, particularly in the context of belief-related perceptions and the intentional formation of actions (Friberg, 2020). This theory incorporates measures of belief control and perceived behavioural control (PBC), which together form the foundation for attitudes and subjective norms related to behaviour. These elements significantly influence behavioural intentions (Ajzen, 2012), suggesting that positive attitudes typically lead to positive actions (Ajzen, 2005).

In this study, TPB provides a valuable lens through which to examine how Life Orientation can shape students' attitudes toward environmental issues. For example, when students learn about environmental sustainability through Life Orientation, they may develop a stronger belief in their ability to effect change, fostering a sense of responsibility and engagement. Additionally, behaviours fostered through environmental education can have a positive impact on the environment, even if individuals do not initially intend to act (Gould, 2019). By understanding the interplay between attitudes, subjective norms, and perceived behavioural control, this research will explore how Life Orientation influences students' recognition of and commitment to environmental stewardship.

## **2.3 Social impact of Life Orientation on environmental sustainability**

This section presents the impacts of Life Orientation on environmental sustainability. It examines the concept of Life Orientation, the benefits of Life Orientation to learners, and its role in social integration.

### **2.3.1 Life Orientation Concept**

The concept of Life Orientation (LO) demonstrates the interrelationship between individuals and their social commitment, approaches to restructuring, physical events, occupations, and professional choices (Stroebel, Hay, and Bloemhoff 2018). Within the context of Sithokozile Secondary School, Life Orientation equips learners with the essential skills, values, and knowledge needed to become responsible citizens committed to environmental sustainability. Students can address environmental challenges by developing problem-solving abilities and by making informed decisions specific to their communities. Furthermore, Life Orientation encourages active participation in sustainability initiatives. It helps to create a generation that is aware of and responsive to local and global environmental issues. DePalma and Francis (2014) emphasize that Life Orientation encompasses a breadth of knowledge, empowering learners to apply these skills and values in real-world situations, thus reinforcing its role as a vital pathway to environmental sustainability.

### **2.3.2 Benefits of Life Orientation for Learners**

Modiba and Sefotho (2019) assert that Life Orientation equips learners to prepare for unforeseen challenges in a rapidly changing world. This preparation enables learners to make informed decisions regarding their health, livelihoods, and education in fostering a sustainable environment. Life Orientation has evolved into a comprehensive subject that demonstrates physical, mystical, and psychological dimensions essential for understanding and addressing environmental sustainability. Prinsloo (2007) emphasizes that Life Orientation knowledge fosters a healthier and more sustainable environment, urging students to familiarize themselves with and understand their ecological surroundings.

Botha, Rens, and de Jager (2022) explain that the South African curriculum recognizes LO as unique due to its holistic approach to the complete development of learners. This approach includes environmental awareness and responsibility, encouraging social engagement, recreation, and

sustainable physical activities. The values, skills, and knowledge acquired through LO empower learners to navigate and address societal and environmental challenges effectively.

Incorporating Life Orientation into the education curriculum equips learners so that they can engage at different levels. According to Mayeza and Vincent (2019) learners who take LO are developed to engage and respond positively to the world's demands. They can assume key responsibilities and make the most of the opportunities presented in life (Mayeza and Vincent, 2019). LO generally enables learners to exercise both their rights and responsibilities as per the constitution of the country (DePalma and Francis, 2014). It gives values, knowledge, skills, and attitudes that develop learners to effectively respond to challenges.

### **2.3.3 Life Orientation (LO) and social integration**

Ferguson and Roux (2003) note that Life Orientation fundamentally involves understanding oneself and others. It is a holistic approach that encompasses social, spiritual, emotional, intellectual, and physical development. This holistic perspective is essential for promoting environmental sustainability, as it encourages learners to recognize their interconnectedness with the environment and their responsibility to care. Prinsloo (2007) adds that LO focuses on individual development, fostering confident and balanced learners who can contribute positively to a just, democratic society and a productive economy.

Ngobese (2018) emphasizes that LO should address attitudes, values, knowledge, and skills concerning individuals and their environments. This aspect is particularly relevant in environmental sustainability for it cultivates responsible citizens. Modiba and Sefotho (2019) assert that LO should equip learners with the problem-solving skills necessary for navigating life during and after their academic journeys.

These problem-solving skills can directly apply to addressing environmental challenges, making LO a critical component in shaping future environmentally responsible leaders. Ultimately, through Life Orientation, learners should develop the capacity to make informed decisions and choices, enabling them to lead meaningful and successful lives in dynamic societies while contributing to environmental sustainability. Stroebel, Hay, and Bloemhoff (2018) describe LO as an interdisciplinary subject that integrates skills, values, knowledge, and processes from various disciplines, including Psychology, Sociology, Political Science, Labour Studies, Human Movement Science, and Industrial Studies. This interdisciplinary nature supports the

understanding of environmental issues as complex and multifaceted, equipping learners to engage with sustainability challenges effectively.

## **2.4 Life Orientation skills to curtail environmental crises**

This section discusses the impact of Life Orientation skills on environmental issues. These include the impact of COVID-19 on Life Orientation, the importance of Life Orientation for learners, academic implications for Life Orientation, and the impact of Life Orientation Skills.

### **2.4.1 Impact of COVID-19 on Life Orientation**

In South Africa, Life Orientation (LO) was introduced in the late 1990s as a subject included in the Outcomes-Based Education approach (Prinsloo 2007). Modiba and Sefotho (2019) explained that from the start, LO came under criticism from various stakeholders who identified it as a subject perceived to have less value for a learner's development. Given that the COVID-19 outbreak had brought measures, which led to the importance of LO, in education. The COVID-19 pandemic exposed the importance of LO in education because the levels of emotional and psychological well-being of the youth were affected.

Botha, Rens, and de Jager (2022) posit that the lockdown created isolation as people were unable to participate in physical sports and recreation. COVID-19 hurt the emotional and mental well-being of the youth. According to Ngobese (2018), COVID-19 made both teachers and students more aware of the importance of LO as a subject. For example, issues such as basic hygiene were overemphasized during the pandemic. LO educated learners on how important it was to take care of oneself, mentally, emotionally, physically, and environmentally.

### **2.4.2 Academic Implications of Life Orientation (LO)**

Academically, LO is a unique subject that pays attention to the diversity of learners. Furthermore, it helps learners to identify and confront challenges using their acquired skills (Ferguson and Roux, 2003). In addition, LO helps learners to effectively make informed decisions regarding career choices and also choose qualifications at higher education levels. DePalma and Francis (2014) explained that it prepares learners to be assets and exercise their rights and social responsibilities, add value to society and to environmentally sustainable living, and allow others to benefit in their communities.

Modiba and Sefotho (2019) explained that LO empowers learners to use their talents and realise their full potential. The objective of the LO curriculum is to develop learners with skills that promote positive conduct and interaction. In doing this, LO helps learners to positively contribute to both their families and communities. Through this subject, learners are taught to exercise their rights and responsibilities, concerning other people's rights, and to tolerate other people's cultures and beliefs.

As with the rest of the aims in education, LO expects the learners to make well-informed, morally responsible, and justified decisions about their health and environment, which will be a component of the study, namely environmental sustainability. If learners are educated, they are expected to gain and exercise the necessary life skills react to challenges and play an active and responsible role in the economy and society for the sustainability of the environment.

### **2.4.3 Impact of Life Orientation Skills**

Stroebe, Hay, and Bloemhoff (2018) explain that it is the learners who are honest and have the zeal to learn Life Orientation skills. A variety of tasks are done throughout the year as part of their assessment in schools. It is part of the learning area that focuses on the fitness of the learners, hence it is required of them to take part in physical activities (Stroebe, Hay and Bloemhoff, 2018). Life Orientation is a holistic subject that attempts to develop the learner on all levels. There is no specific career, but the learners are assisted with the right career choice and to better themselves.

Mayeza and Vincent (2019) postulate that Life Orientation skills acknowledge that there is a wide diversity of knowledge systems through which people make meaning of the world in which they live. No knowledge system is static, but all are growing and changing in contact with other knowledge systems. Indigenous knowledge systems in the South African context refer to a body of knowledge embedded in the philosophical thinking and social patterns of Indigenous peoples that have evolved over thousands of years and continue to evolve (Mayeza and Vincent, 2019).

Nel (2020) further proposes that it is through Life Orientation skills that learners recognize the richness of Indigenous knowledge systems and how they contribute as one of the sources of change to help transform the values of learners. It is education that imparts knowledge through teaching the Life Orientation curriculum. Ngobese (2018) asserts that LO encourages a teaching and learning environment that recognizes that people are diverse and have different strengths and weaknesses. Botha, Rens and de Jager (2022) state that it is the schools that design curriculum with subjects that embrace inclusive education by providing opportunities, alternative methods of instruction, and flexible assessment for learners who experience barriers to learning and participation.

#### **2.4.4 Developing Knowledge through Life Orientation**

Life Orientation also encourages learners and teachers to develop knowledge and understanding of varying levels of learner ability, and support needs to address barriers. Moreover, Pirelli. (2021) postulate that school sports are recognized as an integral, extra-mural, co-curricular component of the education programme which also drives the objectives of LO. Life Orientation, therefore, addresses the knowledge, skills, values, and attitudes that enable learners to participate in extra-curricular activities. This includes school sports, which might be used to communicate and address the issue of environmental sustainability by having it as a theme of curricular activities.

#### **2.5 Life Orientation skills' influence on environmental sustainability**

Pro-environmental behaviour is aimed at protecting the environment or at least not harming it (Lange and Dewitte, 2019). The growing indicators of environmental degradation, including global warming, climate variation and change, ozone layer thinning, and soil and water pollution, have imposed the need for environmental protection and diversified education initiatives focused on this subject (Boca and Saracli, 2019). It is from these predispositions that the awareness of the importance of acting responsibly towards nature individually and collectively has grown among humankind. Grosseck (2019) point out that tendencies focused on understanding EE promote sustainable development (SD). Choudhary (2019) also indicates that EE is an opportunity to acquire the skills, attitudes, and knowledge essential for ecological improvement.

## **2.6 Strategies to Enhance Environmental Education (EE)**

There is consensus from the education history that EE promotes eco-friendly lifestyles among growing children and learners, apart from the acquisition of knowledge on their natural bio-physical environment (Kaiser et al., 2008; Boeve-de et al., 2015; Choudhary et al., 2019). Grosseck et al. (2019) support this ideology, suggesting that apart from factual knowledge, action-related knowledge is essential for effective EE. Therefore, the need to devise strategies aimed at introducing and enhancing EE amongst people to save existent natural resources and the entire earth is indispensable (Choudhary et al., 2019). Introducing EE in schools increases awareness of the surroundings among learners. This assists them in understanding and acquiring knowledge that is a prerequisite to developing the appropriate skills and attitudes. These are necessary for solving the environmental challenges they encounter daily through responsible acting and scientific thinking (Edsand & Broich, 2020). Although pro-environmental behaviour cannot be acquired, emotional involvement and pro-environmental consciousness can be enhanced through EE (Nyika and Mwema, 2021).

### 2.6.1 Framework for Environmental Education (EE)

Environmental Education (EE) is underpinned by a framework that was initiated by the North American Association for Environmental Education (NAAEE) (Hollweg et al., 2011). The framework describes environmentally literate individuals as those who make wise decisions on environmental issues and are willing to take action that will positively influence the welfare of individuals, groups, and the world’s environment during their civic life. Therefore, environmentally literate persons should possess several characteristics, which include i) having a high standard of conduct to apply understanding and knowledge when making decisions regarding varied environmental contexts; ii) cognitive abilities and skills; iii) affective and cognitive dispositions; and iv) knowledge and understanding of various environmental issues, problems and concepts (Sharma, 2016).

A summary of the framework and its sub-domains is provided in Table 2.1 and discussed below.

Table 2.1 Components and sub-components of the EE domain

Domain Components	Sub-components
Knowledge What do you know?	Ecological and physical systems Political, cultural, and social systems Environmental issues Action strategies and citizen participation Many solutions to environmental problems
Dispositions How do you respond to environmental problems?	Concerns and attitudes to the environment Sensitivity Personal responsibility assumption Concerns and attitudes to the environment Self-efficacy Intent and motivation to act
Competencies What skills and abilities do you possess? When and how do you apply them?	Identify environmental problems. Question about environmental problems under different environmental conditions Analyse environmental problems Use primary and secondary sources to investigate the science and social aspects of environmental problems. Assess and make judgements on environmental problems considering the socio-political systems. Use evidence and knowledge-based facts to propose solutions to the problems. Monitor and evaluate plans to solve environmental problems at various levels and scales.
Responsible behaviour towards the environment	Participate in habitual and deliberate behaviours at individual and group levels to solve current environmental problems sustainably and prevent the re-emergence of new ones.

Source: *Hollweg et al. (2011)*

### **2.6.2 Knowledge**

Knowledge of physical and ecological systems focuses on earth sciences, atmospheric, oceanic, and geological systems relevant to environmental literacy. These systems are interdependent and link the environment to humans as the earth's system and ecosystems' main variables (Coyle, 2005). Little, Hester and Carey (2016) postulate that, environmental sustainability is important because of how energy, food, and human-made resources are used every day. Rapid population growth has resulted in increased farming and manufacturing leading to more greenhouse gas emissions, unsustainable energy use, and deforestation. In other words, humans need more energy and materials than ever before. Citizen involvement in various environmental issues is key to collaborative solution-seeking through effective political action and communication strategies. Several technical, scientific, educational, and regulatory efforts are and have been underway to address various environmental problems and form part of EE (Nyika and Mwema, 2021).

### **2.6.3 Dispositions**

Dispositions are negative or positive determinants of behaviour towards the environment. These behavioural determinants influence the willingness of EE students to recognize and adapt to various values while resolving environmental problems (Sharma, 2016). The motivation to participate and act during problem resolution forms part of the predisposition. According to Dada (2017), affective dispositions focus on the sensitivity, attitudes, locus-of-control, worldview, values, and personal responsibility of learners regarding environmental issues.

### **2.6.4 Competencies**

Competencies are abilities and skills required and expressed for a specific environmental issue. They enhance the capacity of learners to identify, analyse, investigate, question, and evaluate environmental problems, make personal judgments regarding them and be informed by critical thinking and evidence-based research (Edsand & Broich, 2020). EE, therefore, advances competencies that enhance the aptitude to deal with real-life environmental problems (Liu & Guo, 2018). Pro-environmental competencies are cultural beliefs, environmental perceptions, personal motives, and skills that promote ecological matters. Through these abilities, learners can assume responsibility for addressing environmental matters for the betterment of communities (Nyika and Mwema, 2021).

### **2.6.5 Influence of School Education in Inculcating Environmental Literacy**

In the science curriculum, social scientific themes and topics are essential in equipping learners with skills to become responsible citizens, manage society sustainably and participate in social life (Wan and Bi, 2019). This aspect has been proven by several empirical studies on the effects of environmental education and schools. Schools cultivate creative problem-solving skills amongst learners through EE, which prepares them for the current environmental challenges they face in their daily lives. Huang (2019) as well as Karpudewan and Roth (2018) confirmed this supposition amongst primary learners since EE improved and advanced their reasoning capacity and ability to make evidence-based decisions on various environmental issues.

### **2.7 Environmental Sustainability**

The United Nations (UN) Programme (2020) stipulates that the World Commission on Environment and Development declared that environmental sustainability is about acting in a way that ensures that future generations have the natural resources available to live an equal, if not better, way of life as current generations. While it may not be universally accepted, the UN's definition is pretty standard and has been expanded over the years to include perspectives on human needs and well-being, including non-economic variables such as education and health, clean air and water, and the protection of natural beauty. Vanegas (2003) alternatively defines environmental sustainability as the capacity to improve the quality of human life while living within the carrying capacity of the earth's supporting ecosystems. Consequently, environmental sustainability is about stabilizing the currently disruptive relationship between the earth's two most complex systems that is human culture and the living world.

Evangelista, Santoro and Thomas (2018) describe sustainability as the capacity to endure a clear behaviour indeterminately. Moreover, it is the ability to conserve the heights of renewable reserve produce, pollution creation, and non-renewable resource depletion that can be continued indefinitely (Evangelista et al., 2018). In place of this, sustainable development is the ability to meet the present needs of people without getting in the way of future generations' right to their necessities. Little, Hester and Carey (2016) hold the view that the drawbacks affecting today's environment include poverty, unemployment, pollution, political unrest, crimes, insecurity, hunger, and climatic change.

Humanistic values are of particular importance as criteria for practice or as a measure of correlation with activity goals. Therefore, humanitarian values and soft skills are relevant today in the model of formed competencies of modern graduates of schools and universities (Krupkin and Sinyakova, 2020). People's perception of nature determines their relationship to nature and their emotional connection with nature. Therefore, to develop conservation strategies, educational programs are needed to raise people's environmental awareness (Edsand and Broich, 2020). Sustainable development requires the development of various forms of environmental practices to overcome the division between nature and society.

### **2.7.1 The three pillars of sustainability**

The three pillars of the sustainability framework are a multidisciplinary implementation and solutions-oriented approach. It recognizes that most successful and scalable sustainability solutions require the presence of, and are driven by, all three pillars simultaneously: i) technology and innovation; ii) laws and governance; and iii) economics and financial incentives (Clune and Zehnder, 2018). Incorporating three interconnected pillars (Ranjbari et al., 2019), sustainability deals with a balanced integration of social, environmental, and economic performance of human lives within the society, environment, and economy to the benefit of current and future generations (Geissdoerfer, 2017).

The COVID-19 crisis imposed immense pressure on the global economy and business activities with significant adverse financial consequences, increased GDP loss by countries, and raised poverty and hunger across the world (Iwuoha and Jude-Iwuoha, 2020). As a result, the global health crisis caused by the pandemic tremendously dragged the international community's progress towards sustainability (Lee et al., 2020). While significant global efforts were previously focused on controlling the COVID-19 pandemic, sustainability in the post-COVID-19 era remains a critical priority (Lambert et al., 2020). Sustainability and achieving Sustainable Development Goals (SDGs) are even more critical than before (Leal Filho et al., 2020).

### **2.7.2 Achieving equitability through sustainable systems.**

Environmental sustainability is the awareness of responsibly interacting with the planet, maintaining natural resources, and avoiding jeopardizing the ability of future generations to meet their needs (Evangelista, Santoro, and Thomas, 2018). Naturally, it is activities like touring and leisure that remind us of the beauty of conserving nature. For an easy understanding of the need for sustainable systems, a walk on the beach or a hike in the woods highlights how forests, coral reefs, and other natural spaces provide opportunities for positive reflection on conservation.

According to the UN Programme (2020), environmental sustainability involves making life choices that ensure an equal, if not better, way of life for future generations. It aims to improve the quality of human life without putting unnecessary strain on the earth's supporting ecosystems. It is about creating an equilibrium between a consumerist human culture and the living world. One can do this by living in a way that does not waste or unnecessarily deplete natural resources.

Mukherjee, Sharma, and Kumar (2020) aver that education is the core component in which learners are prepared for the future. They are taught how societies which inhabit the environment are important and their role in conserving them. De Medeiros, Ribeiro, and Cortimiglia (2014) posit that sustainability issues have gained increasing interest from society. The business community is seen as a promising paradigm for achieving a more equitable and wealthier world in which natural resources and the environment are preserved for future generations.

### **2.7.3 Sustainability through Public Health Management (PHM)**

Mukherjee, Sharma and Kumar (2020) identify that environmental sustainability is needed to maintain public health where clean air, natural resources, and a non-toxic environment are formed. An approach to realizing this target is to improve the health and quality of life of the populace. Sarkis and Zhu (2018) postulate that life can be better if the public can be impacted with the knowledge and values needed to engage in proper moral conduct in society.

Komatsu, Rappleye and Silova (2019) highlight that as individuals, one can take small but effective steps towards a more sustainable lifestyle, like using less water, reducing meat consumption, and switching to reusable products to reduce dependence on single-use plastics. From a corporation's perspective, environmental sustainability may involve switching to renewable energy in warehouses, factories, and offices, or cutting down on single-use plastics in manufacturing.

#### **2.7.4 Current issues on environmental sustainability**

While environmental sustainability offers clear benefits to global human and animal health, there are some barriers one may face when working to achieve it. Evangelista, Santoro and Thomas (2018) had the view that exponential population growth, unsustainable consumption, and production patterns amongst the rich are the primary social challenges to achieving global sustainable development. Sustainability will be impossible if there are no changes in global human behaviour. Pirelli *et al.* (2021) also highlight that other social hurdles include limited awareness and education about sustainability. Also, insufficient interaction between civil society and the government; and inadequate incentives for the private sector to encourage sustainable development are challenges to consider.

Vezzoli and Manzini (2008) state that sustainable development focuses on economic growth rather than people's health or rights. For environmental sustainability to work globally, people's worldviews must shift as they currently treat the environment as part of the economy rather than the other way around. This change means that the economy must be adapted so that environmental services are maintained. This process will likely take decades for a shift to begin taking place.

Mukherjee, Sharma, and Kumar (2020) state that the general goal of environmental sustainability is important. Environmental sustainability provides huge benefits for human health and that of all other species. It reduces the global carbon footprint and reliance on fossil fuels and other harmful energy practices. However, does it benefit mankind differently? Little, Hester, and Carey (2016) further support that sustainability can increase life expectancy by providing healthier living conditions and better healthcare, which could lessen the divide between the rich and poor. Consequently, sustainable development encourages more responsible manufacturing and production, covering the industrial side of waste and pollution. It also boosts companies, industries, and governments to make decisions based on long-term consequences, rather than taking the easiest, cheapest option.

### **2.7.5 COVID-19 and sustainability**

The lockdowns have been identified as one of the COVID-19 containment strategies in the absence of a specific vaccine or treatment in the short term (WHO, 2020). (Khan, 2020) argues that cities worldwide registered gains in the natural environment with significant reductions in pollution of several environmental domains such as soil, water, and air. However, the World Economic Forum (2020) expressed uncertainty about the length of these benefits, asserting that although the COVID-19 pandemic triggered cleaner air through its containment measures, it will do little to address the issue of air pollution in the long term. Therefore, it can be concluded that celebrating the COVID-19-generated incidental positive gains in the natural environment is premature and the focus should rather be on how to sustain the accrued gains through granular policy decisions during the design of COVID-19 stimuli and recovery packages (Werikhe, 2022).

## **2.8 Empirical literature**

It has been identified that Life Orientation is a fundamental base in the national curriculum and is defined as an all-inclusive study within society. It is also an opportunity for young people to develop their emotional side and the citizenship aspects of life in South Africa. It is a collection of many attributes that make up Life Orientation, including health and physical fitness. This section discusses some recent empirical studies conducted in respect of high-school students and sustainability development efforts.

### **2.8.1 Shortage of Resources**

Ferguson and Roux (2003) surveyed 18 different schools in 2019 to check what was taking place in the classrooms. They used the observation methodology to assess what was happening in the classroom. The review concluded that sometimes it was good and sometimes, they wanted to weep. They identified the problem as what is taught in schools depends on which textbooks teachers are using. The Department of Education has numerous textbooks that are included in the classroom and the course. In addition, schools tend to buy affordable textbooks, or sometimes they do not have textbooks at all. In this case, they rely on teacher extracts from existing textbooks.

From the survey, it is observed that the actual national curriculum had many valid and worthwhile topics within the textbooks. However, what happens is that once it is interpreted into textbooks, teachers tend to rely on the textbooks and not interpreters of the curriculum itself. The challenge with teachers in schools is that they are reliant on textbooks. There are no attempts to use other

resources that might stimulate, inspire and motivate the learners to think critically about controversial issues.

### **2.8.2 COVID Implications, of Life Orientation in Schools**

Botha, Rens, and de Jager (2022) examined the role of Life Orientation in Schools, with the implications of COVID-19. The study was of the view that Life Orientation as a subject, since its introduction in 2006, does serve the purpose within societies by imparting skills and values that are taught in the curriculum. Botha, Rens, and de Jager (2022) adopted a qualitative design in an interpretive approach as their methodology and data were collected through online questionnaires targeting teachers. The teachers perceived that Life Orientation as a compulsory subject in South Africa is critical and further concluded that as a subject, it plays a significant role in preparing learners for the various challenges faced by society. Furthermore, the study highlighted that the COVID-19 pandemic in the first year necessitated the skills and values taught in Life Orientation to survive the mental and emotional impacts of the pandemic.

### **2.8.3 Perceptions of Life-Orientation by Learners**

Stroebel, Hay and Bloemhoff (2018) investigated the North-West Province of South Africa to ascertain how Life Orientation is experienced by learners in schools. The study was carried out with the view that the effectiveness of LO has not yet been proven and there is evidence of some problems in attaining this ideal. To derive the results, focus groups were used with the main study sample drawn from high-school learners. The results of this qualitative investigation indicate various problems in the practice of LO education. Many learners seem to view LO as unnecessary, boring, and irrelevant. Furthermore, this study provides evidence that LO fails to accomplish its aims as laid out in the National Curriculum Statement.

#### **2.8.4 Psychological well-being of the Life-Orientation teacher**

Nel (2020) found that one of the core components of the Life Orientation curriculum is the development of optimal well-being among learners. However, while some studies have focused on the general well-being of educators in South Africa, very few have focused on the psychological well-being of South African Life Orientation teachers. Nel (2020) utilized a qualitative research design to identify high-school Life Orientation teachers' experiences of psychological well-being. The study found that intrapersonal experiences of identity as a Further Education and Training Life Orientation teacher were prevalent. Additional observations were that experiences of contextual factors and their effects on experiences of psychological well-being, such as time constraints, lack of resources, and a lack of commitment and motivation on the part of learners, were also identified. Concerning LO as a subject, the perception of LO as a trivial subject, work overload and work pressure causing stress, physical ill-health, and experiences of a lack of support were further identified. Consequently, factors such as rewarding learner interactions as motivation; a sense of belonging; and Life Orientation teachers' psychological well-being play a role in the classroom.

Ngobese (2018) also studied the role of Life Orientation teachers in preparing learners for post-education in the district of Zululand and found interesting data. In the study, the researchers also addressed other supporting programmes which enable teachers who teach LO to support learners after graduation. To that end, the researcher used questionnaires and focus groups to guide data collection. The study found that teachers are supporting learners with the skills and knowledge. The challenges identified in the study are that teachers are not trained in the career guidance issue for them to properly guide learners. Another challenge that prevailed was the insufficient time allocated to teach LO. The lack of career guidance resources and negative attitudes towards LO as a subject by teachers as well as school management teams was cited as another hurdle. Ngobese (2018) recommends that the Provincial Department of Basic Education should provide training for all teachers and provide career guidance so that learners can benefit from the importance of the subject.

### **2.8.5 Studies on Environmental Sustainability**

Dalu (2020) analyzed environmental sustainability to understand whether plastic pollution is taught in South African primary and secondary education or not. The study used qualitative approaches to ascertain whether teachers covered the curriculum components that address plastic pollution. It also checked if educators understood plastic pollution within terrestrial and aquatic environments. Dalu *et al.* (2020) concluded that plastic pollution is being conscientized in education. Furthermore, the schools are integrating the concept into the technology, natural sciences, geography, life skills, and Life Orientation subjects. Even though the study highlighted that plastic pollution is taught at schools, the practical aspect is not practised, especially in secondary schools, though in some cases plastic littering. Additionally, the study found that there is a need to increase environmental programs to educate schools on management practices and the impacts thereof.

### **2.9 Conclusion**

This chapter has covered the literature review related to Life Orientation, environmental degradation, and life skills among the youth. The theoretical concepts discussed were the Self-determination theory (SDT) and the Theory of Planned Behaviour (TPB). It was identified that the SDT theory perceives that self-determination is a quality of human functioning that involves the experience of choice Dalu *et al.* (2020). Additionally, the TPB was developed as a systematic explanation of volitional behavioural engagement, based on a set of belief-related perceptions, the deliberate formation of intentions, and their enactment (Friberg, 2020). Life Orientation skills to curtail environmental crises were also discussed. It was revealed that Life Orientation promotes the knowledge, values, attitudes, and skills that prepare learners to respond effectively to the challenges that confront them, as well as the challenges they will have to deal with as adults to play a meaningful role in society and the economy. The next chapter will present the research methodology employed in the study.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.0 Introduction

The previous chapter examined the literature review related to the study. This chapter presents the research methodology that was employed. Details of the research philosophy, research design, population and sampling, data analysis, and the validity and reliability of the study will also be discussed.

### 3.1 Research Design

Researchers strategically addressed research questions in a valid, objective, accurate, and economical manner through meticulous design. The research design process initiated by determining the study type is a critical step in resolving the research problem. Zungu (2013: 85) characterizes research design as a guiding structure for researchers, categorizing it as either exploratory or conclusive. Additionally, Zikmund and Babin (2007: 493) and Wiid and Diggins (2015: 62) liken research design to a "master plan" outlining procedures and processes for gathering and examining necessary data. In contrast, Ranganathan and Aggarwal (2018) define research design as a framework or the set of methods and procedures used to collect and analyse data on variables specified in a research problem.

Research designs range from simple to intricate, with the three most commonly used being exploratory, descriptive, and explanatory (Makhitha et al 2021). Social scientists often pose the following research questions:

- What is going on? (Descriptive research)
- Why is it going on? (Explanatory research)
- How is it? (Exploratory research)

Exploratory and descriptive designs were chosen to provide pertinent information to inform the initial research. Another reason for selecting this research design is its capacity to explore new researchable ideas, facilitating a deeper understanding for the researcher.

### **3.2 Research Philosophy/Paradigms**

Research philosophy has been an integral aspect of scholarly inquiry for decades and has been extensively discussed by scholars in the research literature (Hürliemann 2019: 111; Jain 2019: 8; Al Ahmadi 2019: 7; Moon et al. 2019: 3). The term philosophy finds its origins in the Greek word "Philosophia," denoting the love (philia) of wisdom (Sophia). Historically, philosophy encapsulates the love of wisdom, designating anyone who cherishes wisdom as a philosopher (Muchanga 2020: 208).

Jain (2019: 8) defines research philosophy as the guiding principle for developing knowledge based on various assumptions. In contrast, Saunders et al. (2015: 124) conceptualize research philosophy as the growth of knowledge within a specific scientific domain, informed by principles and assumptions. This perspective is supported by Antwi and Hamza (2015: 218), who argue that beliefs, values, assumptions, and culture, shape research philosophy. For this study, all the above definitions will be adopted.

The term research paradigms, derived from the Greek word paradigm meaning pattern, denotes the researcher's perspective and interpretation of the world, forming the basis for a study (Killam, 2013: 5). Research paradigms offer numerous advantages, allowing researchers to gain insights and a deeper understanding aligned with their research objectives (Easterby-Smith, Thorpe, and Jackson, 2015: 45). Selecting a research paradigm not only aids in articulating the study approach and philosophical stance but also helps distinguish between applicable and non-applicable research designs (Easterby-Smith et al., 2015: 46). In current literature, research paradigms are commonly categorized as positivism, post-positivism, interpretivism, and pragmatism (Kivunja and Kuyini, 2017: 30; Romani et al., 2018: 248; Rahi, Alnaser, and Abd Ghani, 2019: 116).

### **3.2.1 Positivism**

Positivism, also known as naïve realism, is grounded in the principle of beliefs and applied in various contexts. Park, Konge, and Artino (2020) explain that positivism relies on hypothetical and deductive methods to verify a priori hypotheses, often stated quantitatively. This approach seeks to establish functional relationships between causal (independent variables) and explanatory factors, and outcomes (dependent variables). The principal aim of positivist inquiry is to generate explanatory associations or causal relationships that ultimately lead to the prediction and control of phenomena. Put differently, Peng and Shiyu (2019: 212) observe that positivism posits that knowledge is acquired through the scientific empirical approach, organizing data through experiments and observation. Positivism is founded on ontology, which relates to the nature of reality (Park, Konge, and Artino, 2019).

The positivist paradigm assumes the existence of a single tangible reality—one that can be understood, identified, and measured. Epistemologically, positivists contend that knowledge can and must be developed objectively, without the values of researchers or participants influencing its development (Kaushik and Walsh, 2019). When appropriately developed, knowledge is considered truth—that is, certain, congruent with reality, and accurate. Achieving this truth requires absolute separation between the research participant and the researcher (Park et al., 2020).

### **3.2.2 Post-positivism Paradigm (Critical Realism)**

In contrast to positivism, the post-positivism paradigm allows researchers to choose qualitative or quantitative strategies. Bygstad and Munkvold (2011: 1) highlight critical realism as an alternative to positivist and interpretive research. Ontologically, post-positivism assumes that society is objective and independent of human understanding, governed by various activities (Ellaway, Kehoe, and Illing, 2020: 3). According to Kaushik and Walsh (2019: 1), scholars adopting this approach categorize knowledge as dependent on objectivity, standardization, and empirical reasoning, while also acknowledging the embedded roles within the research.

### **3.2.3 Interpretivism Paradigm (Constructivism)**

Kankam (2019: 86) defines the interpretivism paradigm as an epistemological stance that enables scholars to subjectively understand social activities. Interpretivists propose that social reality is constructed through the meanings and interpretations individuals attach to their experiences, rather than being objective and independent of human perception (Alharahsheh and Pius, 2020: 42; Junjie and Yingxin, 2022: 10). Ormston et al. (2014) further emphasizes that interpretivism forms the core of qualitative study, leveraging interpretation and observation to gain an in-depth understanding of individual experiences.

### **3.2.4 Pragmatism**

The pragmatic paradigm enables researchers to utilize qualitative and quantitative, or mixed methods simultaneously within a single study (Abutabenjeh and Jaradat, 2018: 247; Maarouf, 2019: 2). This approach emphasizes what works and assumes a pragmatic truth.

### **3.2.5 The Study Choice of Paradigm**

This study employed a positivist research paradigm due to its objectivity in deriving universal rules that are generalizable across all populations, without considering contextual variables. Additionally, the positivist paradigm is appropriate as positivist ontology holds a realist view that the world is external and that there is a single objective reality for any studied situation or phenomenon, regardless of the researcher's views and beliefs (Junjie and Yingxin, 2022). Since objectivity was critical for this study, the positivist research approach was deemed appropriate.

## **3.3 Research Approaches**

A research approach provides a guiding strategy for researchers to collect and analyze data, as well as to address research questions or test hypotheses (Saunders, Lewis, and Thornhill, 2016). The two primary methodologies are qualitative and quantitative research (Hart & Hart, 2020). Researchers may also opt for a mixed-methods approach, integrating both techniques (Otoo, 2020). The choice of approach depends on factors such as the research question, the nature of the research problem, and the researcher's preferences and skills. Each approach has its strengths and limitations, making it suitable for different types of research questions (Boateng, 2014). For this study, a quantitative approach rooted in positivism has been adopted. This approach was selected to establish links between variables within a representative sample of the population using

statistical techniques. By employing this method, the study aims to achieve precise and reliable measurements, facilitating robust statistical analysis.

### **3.4 Target Population**

Saunders, Lewis, and Thornhill (2009: 183) define the target population as the total number of observed elements constituting the universe. Participants within the general population must share at least an attribute of interest, making them eligible as population members (Asiamah, Mensah, Oteng-Abayie, and Eric 2017; Willie 2022). For this study, the target population comprised the students of Sithokozile Secondary School.

### **3.5 The Sample Size of the Study**

Kolb (2008) and Matima (2010) defined the sample size concept as the quantity of elements incorporated into a study. Bhattacharjee (2012: 89) views the sample as a sub-unit that represents the total population. On the other hand, Sekaran and Bougie (2010: 296) emphasized the applicability of a sample size that ranges from 30 to 500. Moreover, Sekaran and Bougie found that for a population size between 75,000 and 1,000,000, the sample size should be from 382 to 384. However, Welman *et al.* (2005: 71) suggested a sample of 451 was adequate when the population size is 1 000 000, while Saunders *et al.* (2009: 219) further stated that, the larger the sample size, the lower the likelihood of error in generalization to the population. Whereas Brynard *et al.* (2014: 57), stated there are no fixed rules for determining sample sizes - only guidelines that suggest what representative percentage of the population to be studied would be selected, Maree (2007: 178) stated that practical considerations, such as time and cost, need to be considered by the researcher. For this study, the factors above were taken into consideration in selecting a sample size of 110.

### **3.6 Sampling Method**

The method of sampling encompasses two major classes: probability and non-probability sampling methods (Maree, 2010). Probability sampling methods adhere to the principles of randomness and probability theory, while non-probability sampling methods do not (Smith and Albaum, 2012). For this study, a probability sampling method, specifically systematic random sampling, was employed. In the selection process, students aged 16 and older were chosen. This selection was class-based, with the form teacher providing a class list (class register). From this consolidated list, systematic random sampling was used to select every fourth student, resulting in a sample of 110 students. These selected students were given questionnaires to complete during break times and return to the researcher at the school on the same day. The entire process took one week to complete.

### **3.7 Data collection**

Data collection is an integral part of the research, and several activities must be performed before the actual data collection (HR and Aithal 2022: 462; Mwita 2022: 532). In this study, the researcher personally coordinated quantitative data activities.

#### **3.7.1 Primary data**

The study gathered primary data on the various constructs of interest. Matima (2010: 21) defines primary data as information collected for the first time by the researcher to address the study's objectives and problems. For quantitative data collection, a structured questionnaire was utilized in the current study. This instrument was distributed to students who are doing matriculation at Sithokozile Secondary School in KwaDabeka.

### **3.7.2 Data collection methods used**

In the realm of quantitative data, the study employed a combination of closed- and open-ended questions to gather information from respondents. To facilitate data collection from learners at Sithokozile Secondary School in the KwaDabeka area of KwaZulu-Natal, a self-administered structured questionnaire was developed. Defined by Abawi (2013: 90) as a tool comprising a series of questions aimed at extracting information from respondents, the questionnaire was structured for efficiency. This choice was based on the belief that a structured questionnaire serves as an apt data collection tool, capable of gathering substantial data from a large participant pool (Quinlan 2011: 326). Opting for a questionnaire, a versatile instrument for both qualitative and quantitative data collection, was motivated by its proven flexibility, cost-effectiveness, and ease of use for respondents (Matima 2010: 50). Additionally, Van Eyk (2010: 37) highlighted the importance of crafting survey questions with credibility in mind. Therefore, the questionnaire was precisely designed to ensure clarity and credibility, encouraging respondents to provide relevant and comprehensive answers.

### **3.7.3 Questionnaire development**

The questionnaire development process was one of the most important steps in this study. The questionnaire for this study was through a literature review of local and international academic sources, professionals, and researchers (Chapter 2). The literature review findings were employed as an information base from where the research questionnaire was formulated, with which the variables were determined, along with the information of the primary data instrument.

A cover letter, on a DUT letterhead and signed by the researcher, explained the purpose and nature of the research and accompanied each questionnaire, with an assurance of absolute confidentiality to respondents (Appendix A). While this allays fears where the nature and purpose of the study are concerned, it also encourages respondent cooperation.

A quantitative questionnaire was developed for this study, and it comprised closed- and open-ended questions to measure the variables of interest. The timing of the entire procedure was done by interviewers to ensure it was not too lengthy, with the process not seen to be irritating, specifically when a promise had been made, that it would, for example, take only 15 minutes of respondents' time. The next sub-section indicates the structure of the quantitative questionnaire.

### **3.7.3.1 Structure and content of the quantitative questionnaire**

A standardized questionnaire was used to collect data from Sithokozile Secondary School in KwaDabeka. The data helped draw conclusions based on the findings. The quantitative questionnaire began with a brief introduction outlining the research objectives. The questionnaire was divided into four sections:

Section One: This section comprised four questions designed to gather respondents' biographical data. No names were required, ensuring confidentiality.

Section Two: This section focused on whether personal experience is important for learners in solving the environmental crisis. It contained ten statements, and respondents indicated their level of agreement with each statement.

Section Three: This section aims to determine if learners apply their skills to make decisions. Respondents indicated their level of agreement with six statements.

Section Four: This section aims to ascertain if the knowledge gained by learners adds value to their image. Respondents indicated their level of agreement with seven statements.

Respondents had five options to choose from, indicating their level of agreement or disagreement with each statement. A Likert scale with a 5-point range, from "strongly agree" to "strongly disagree," was used to gather responses. All of the questions were developed from previous study findings noted during the process of reviewing the literature. Interviewers were additionally told to express their gratitude for the respondents' time and cooperation.

### **3.8 Data Analysis**

The data analysis section is concerned with how quantitative data was analysed. The researcher of this study uses the Statistical Package for Social Science (SPSS) version 28 as a statistical tool to perform the analysis. To commence the analysis, SPSS was used in the descriptive data analysis and the examination of the non-response bias (Armstrong and Overton 1977: 397). The choice of using SPSS to perform the descriptive statistical analysis is because the researcher finds it user-friendly, easy to use, and more importantly, the most often used social science data and normality testing (Mishra *et al.* 2019: 69; Pallant 2020: 9). The researcher used the following statistical analyses to analyze data for this study: Cronbach's coefficient alpha, frequency analysis, descriptive statistics analysis, Chi-Square test, inferential statistics analysis, and correlations. These tests are briefly discussed:

#### **3.8.1 Tests for statistics analysis**

This section provides information on the following items: Cronbach's Coefficient alpha, Frequency analysis, and Descriptive statistical analysis.

##### **3.8.1.1 Cronbach's Coefficient alpha**

It is stated by Islam, Khan, Obaidullah, and Alam (2011: 289) that Cronbach's Alpha measures the inter-item consistency, as well as the coefficient that reflects the way items in a set correlate positively to each other. However, Larsson *et al.* (2015) thought a reliability coefficient value would be considered acceptable, should it be 0.70 or higher. Therefore, the reliability of all items used in this study was tested using Cronbach's Alpha.

### **3.8.1.2 Frequency analysis**

Frequencies establish whether the allocation is uniform or merely clustered around a few categories (Welman *et al.* 2005: 229). Nevertheless, Ho (2013) concluded that frequencies were used to find out the frequency of a respondent's specified response to a given statement or question, to assess the data coding. The evidence gathered from the frequencies will assist the researcher in analysing the results and conclusions of the study. For this study, frequencies were displayed using pie charts or bar diagrams. Responses may be skewed toward one end of the scale or the other. Furthermore, to observe the demographical data of the respondents' use was made of frequency analysis. To generate an understanding of responses the mean and standard deviation scores are calculated.

### **3.8.1.3 Descriptive Statistics Analysis**

Descriptive statistics are highlighted by Welman *et al.* (2005: 231); and Ali, (2021) as used to depict the basic data features of the study. Nonetheless, Armstrong and Kotler (2006: 103) explain descriptive research's objective as describing things, for example, a product's market potential or consumer attitudes and demographics as to who buys the service or product., Descriptive analysis will, for this study, enable pattern identification and through simple summaries, data distribution of the study variables, which is usually the core of the majority of quantitative studies. Descriptive statistics were used based on the data collected, with graphs used for graphical representation of the results.

## **3.9 Validity and Reliability**

Heale and Twycross (2015) define validity as the degree to which a concept is accurately measured in a study. Similarly, Saunders *et al.* (2016) and Kubai (2019) describe validity as the extent to which the results measure what they are intended to measure. Various types of validity are identified; content validity, in particular, signifies whether the concepts being addressed are measured by a representative set of measurement items (Saunders *et al.* 2016; Hair *et al.* 2020; Flake *et al.* 2022). Ensuring content validity involves grounding research questions in the literature review. Content validity is the degree to which a test or assessment instrument evaluates all aspects of the topic, construct, or behaviour it is designed to measure (Hair *et al.* 2020). Additionally, face validity refers to whether the items in the questionnaire are understandable and clear, which was

ensured by conducting a pilot test of the questionnaire with several different respondent groups to establish their comprehension of the questions.

Saunders et al. (2016) define reliability as the consistency with which results can be reproduced under identical conditions. To assess reliability in this study, Cronbach's alpha coefficient was computed to confirm internal consistency. Ensuring consistent outcomes from research instruments is crucial for reliable data collection and analysis (White & McBurney, 2012). The reliability testing procedure aimed to demonstrate that these instruments could yield consistent scores when administered repeatedly to the same study participants in the future. Internal consistency was particularly emphasized as the preferred method to assess the reliability of the questionnaire. To bolster the reliability of study outcomes, a sample size of 110 was determined appropriate, aligning with the argument by Santo (1999) that sufficient sample sizes are crucial for developing reliable variables and objective models. Additionally, Cronbach's alpha coefficient was utilized to gauge how well a set of variables captures a single, unidimensional concept.

### **3.10 Ethical Consideration**

Barrow, Brannan, and Khandhar (2021) assert that research ethics encompass the formulation and clarification of research titles, study design, data collection, systematic storage, and analysis. Ethical considerations include avoiding dishonesty, maintaining transparency about the study's purpose, obtaining informed consent from participants, protecting their privacy, and ensuring they do not experience emotional or social harm (Creswell, 2014).

Permission was obtained from the Senior Management Team of Sithokozile High School. A consent form, drafted by the researcher, was provided to each participant, clearly stating that participation was voluntary and carried no risk. Participants were informed of their right to withdraw from the study at any time. The form also guaranteed the confidentiality of the information, and the security of participants' identities as suggested by Hirose & Creswell, (2023).

#### **3.10.1 Voluntary Participation**

Participants were requested to sign the consent form (parents and guardians would sign on behalf of the students). By signing a consent form, the participants demonstrated that their participation was voluntary. The participants were provided with essential information about the study to enable them to decide whether to participate or not. They were not coerced in any way and voluntarily agreed to be part of the research.

### **3.10.2 Informed consent**

According to Burns and Groves (2019:201), informed consent relates to the transfer of important information from the research to the participants for them to agree to be part of the study. Once given the necessary information, the participants were asked to provide their consent in writing.

### **3.10.3 Anonymity and Confidentiality**

Anonymity was maintained by using codes assigned to each participant and were used separately from the consent forms. The data collected was locked up in the library and destroyed after five years using threading and deleting all information from the computers. The participants were informed that the information provided would be treated confidentially and would not be shared with any party without their consent.

### **3.10.4 Potential for harm**

The participants were told that they would suffer no physical harm by participating in this study. They were also informed that they are free to withdraw from the study at any time, with no consequences.

### **3.10.5 Results communication**

The participants will be informed that they may have access to the results of the study by contacting the investigator through the email provided. They will also be informed that the study results are for academic purposes only.

## **3.11 Chapter Summary**

This chapter discussed the various philosophies, and the type of philosophy used for the study. The chapter further examined the various research paradigms and justified selecting the paradigm used for the study. In addition, this chapter also reported on the research approach and design underpinning the study. The choice of employing the use of a quantitative approach is also provided, with the chapter also dealing with the population and sampling for the study. The various sampling methods are highlighted, and the choice of sampling method for the study is indicated. The current chapter makes way for the next chapter (chapter 4), which offers a more detailed presentation of the study results.

## **CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION OF RESULTS**

### **4.1 INTRODUCTION**

This chapter presents the analysis and discussion of the data collected to address the study's research objectives, building upon the methodology detailed in Chapter Three. The primary research instrument, a questionnaire, was distributed to learners at Sithokozile Secondary School to gather relevant data. The collected responses were analyzed using the Statistical Package for the Social Sciences (SPSS) version 28.0, with quantitative results shown through descriptive statistics, including graphs, cross-tabulations, and other visual aids. Inferential analysis techniques, such as correlations, were also used and interpreted according to their p-values to explore potential relationships within the data. Additionally, descriptive statistics support the assessment of the study's objectives, while exploratory factor analysis (to confirm convergent validity) and reliability assessment provide further insights. Graphs generated in Microsoft Excel are included to clarify the findings and provide a comprehensive overview.

### **4.2 RESPONSE RATE AND REPRESENTATIVENESS**

The sample for this study comprised 110 respondents. Questionnaires were handed out to 110 respondents, and 104 respondents returned the questionnaire, giving a 94.54% response rate. This response rate was good because it was above 80%, per Donk et al. (2016).

### **4.3 THE RESEARCH INSTRUMENT**

The research instrument consisted of 23 items, with a level of measurement at a nominal and ordinal level. The questionnaire consisted of four sections. These are demographic data, personal experience of learners in solving environmental crisis problems, learners' skills to make decisions, and the knowledge gained by the learners that adds value to their image.

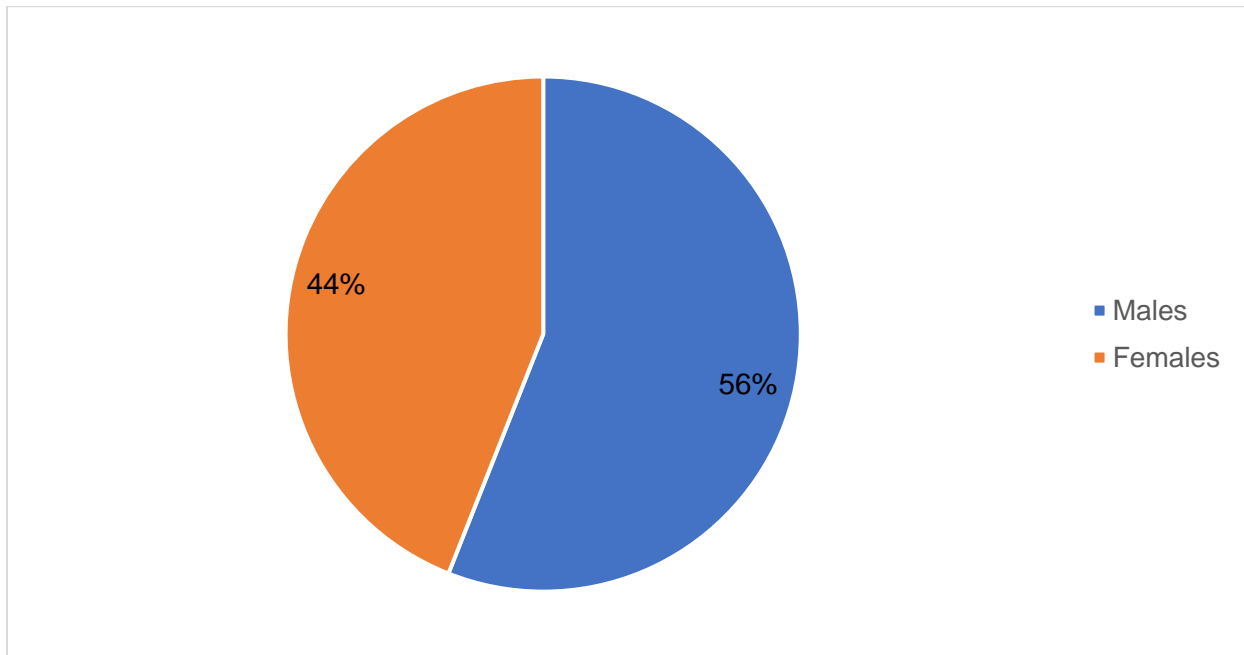
#### 4.4 SECTION A: DEMOGRAPHIC INFORMATION

This section presents the profile of the respondents. Frequency tables are essentially used to describe the demographic profile of the respondents. According to Jakobsson, Edge, and Rosenberg (2018: 518), a frequency distribution refers to a mathematical distribution whose objective is to obtain a count of the number of responses associated with different values of one variable and to express these counts in percentage terms. A frequency table is easy to read and provides basic information. Therefore, frequencies in this section will be presented in the form of bar charts and pie charts. In this section, the demographics include age, gender, and race.

##### 4.4.1 Gender

Figure 4.1 illustrates the gender demographics of the respondents. It reveals that in this study, 56% of the respondents were male and 44% were female. The findings indicate that Life Orientation as a pathway to environmental sustainability may have more impact on females than males. It is noticeable that females were more likely to offer these reasons than males.

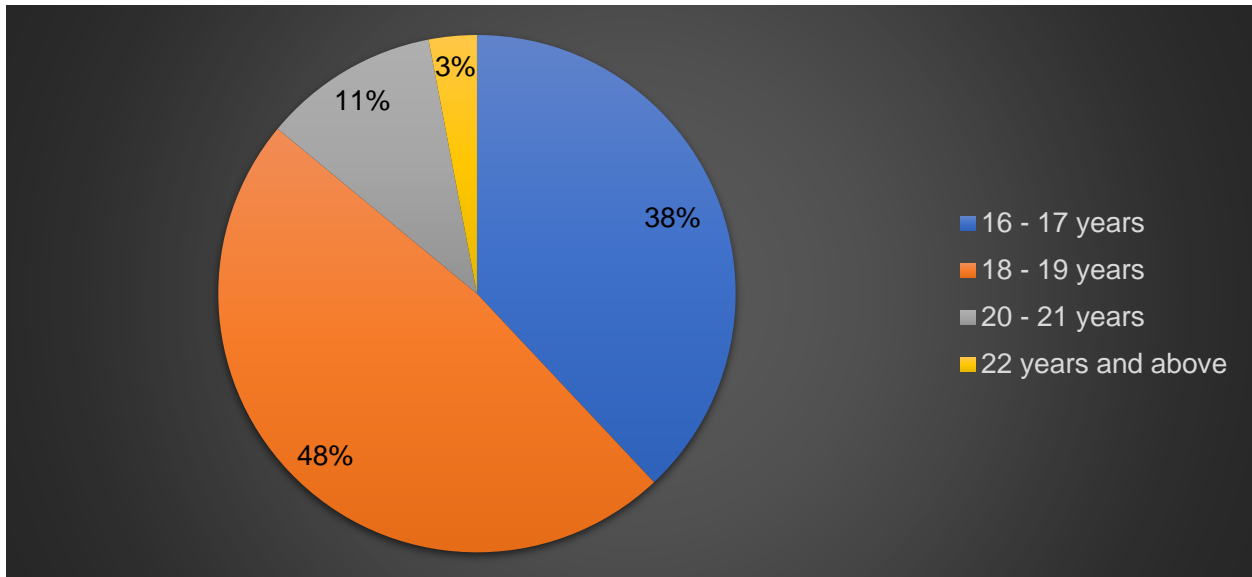
**Figure 4.1: Gender demographics of the respondents**



#### 4.4.2 Respondents Age Groups

Figure 4.2 shows the age categories of the respondents. The results reveal interesting insights into the age distribution of the respondents. The results show that 48% of participants were between 18 - 19 years, indicating a significant representation of this demographic. This could suggest that individuals in this age bracket were more available to participate in the study. Following closely, respondents aged between 16-17 accounted for 38% of the total, showing another substantial group of participants. This indicates a strong presence of younger participants in the study. Interestingly, the age group of 20-21 made up 11%, suggesting a slightly lower participation rate between the 18 - 19 age group but still significant. The lowest participation was observed in the age group of 22 and above, comprising only 3% of the respondents. Overall, the data suggests that the research attracted mainly younger participants, particularly those between 16 and 21 years old, while participation decreased notably among older age groups.

Figure 4.2: Respondents Age Groups

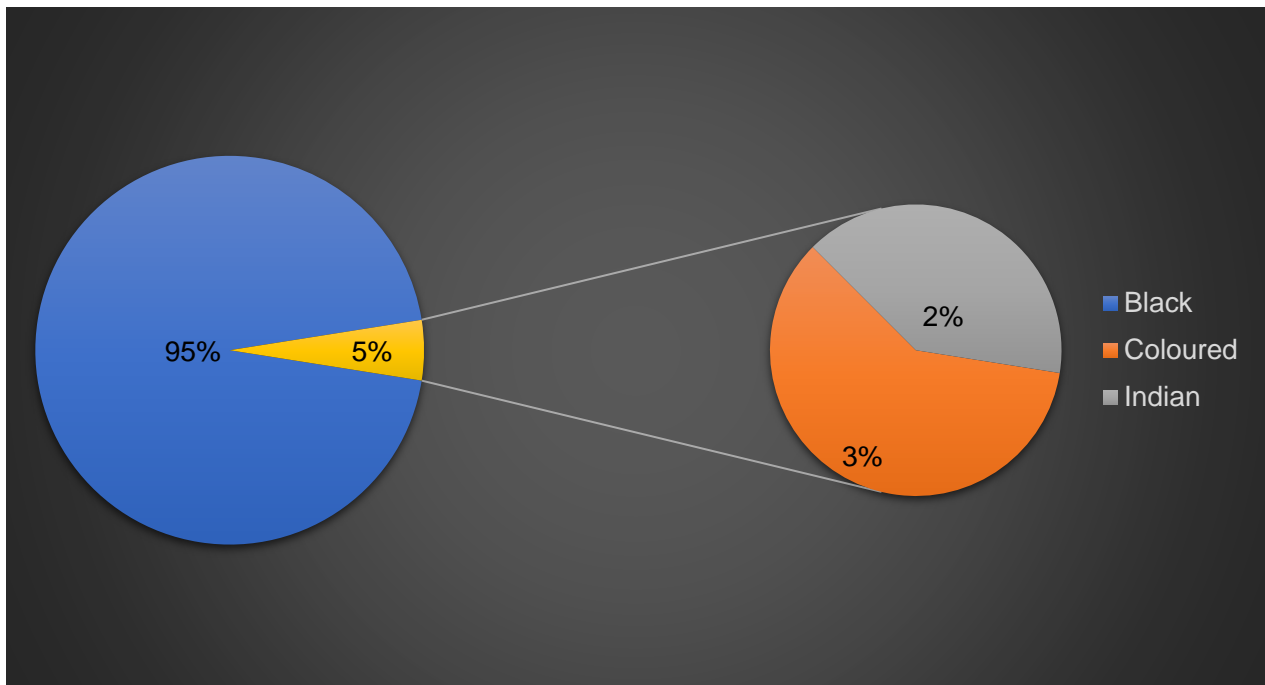


### 4.4.3 Race

Figure 4.3 highlights the race profiles of the participants. The impact of Life Orientation as a pathway to environmental sustainability in high schools was assessed based on the racial groups of the respondents, as depicted in Figure 4.3. According to Figure 4.3, 95% of the learners at Sithokozile Secondary School are classified as black Africans. The remaining 5% comprises other racial groups, with 3% being Coloured and 2% Indian. This demographic distribution underscores the predominance of black Africans, while also revealing a small proportion of learners from other racial groups, such as Coloured and Indian learners. Such demographics likely reflect broader enrolment patterns within the school.

Life Orientation encompasses the study of self about others and society. It involves developing skills, knowledge, and values related to self-awareness, environmental stewardship, responsible citizenship, healthy living, social engagement, recreational activities, physical fitness, career exploration and choices.

Figure 4.3: Respondents Race profiles



#### 4.4.4 Respondent Grade Profiles

The respondents' Grade profiles and their responses are presented below in Figure 4.4. The figure illustrates that the majority of participants in this study were from grades 11 and 12, making up 87% of the total (47% from grade 12 and 40% from grade 11). Smaller percentages were represented by other grades that is 5% from grade 8, 4% from grade 9, and another 4% from grade 10. This distribution indicates a higher awareness of environmental issues among learners in Grades 11 and 12 compared to Grades 8, 9, and 10. These findings align with research conducted by Furlan, Galeazzo, and Paggiaro (2019: 238), highlighting that the South African Grades 11 and 12 Geography curriculum includes content on natural ecosystems, the environmental impact of human activities, and sustainable development principles.

Figure 4.4 Respondent Grade Profiles

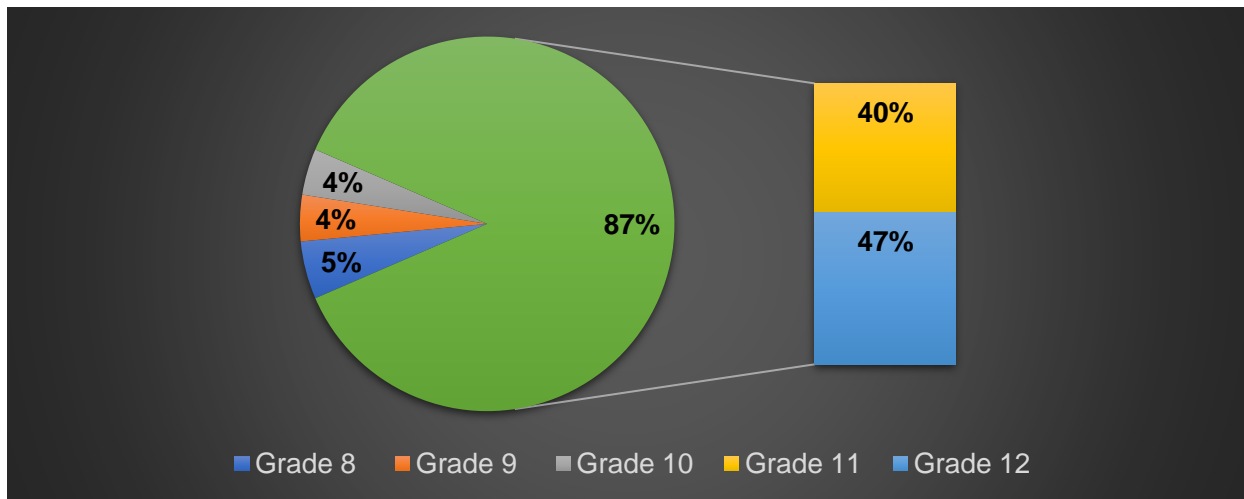


Table 4.2: Reliability Statistics

Cronbach's Alpha	N of Items
0.904	34

The reliability statistics, using Cronbach's test, indicate that the instrument used to gather data for this research achieved a Cronbach's alpha value of 0.904 across 34 Likert-scale items analysed. These findings demonstrate that the instrument was highly dependable, as the reliability statistics fell within the excellent range above 0.9. This suggests that the collected data can address the research objectives and the research problem effectively.

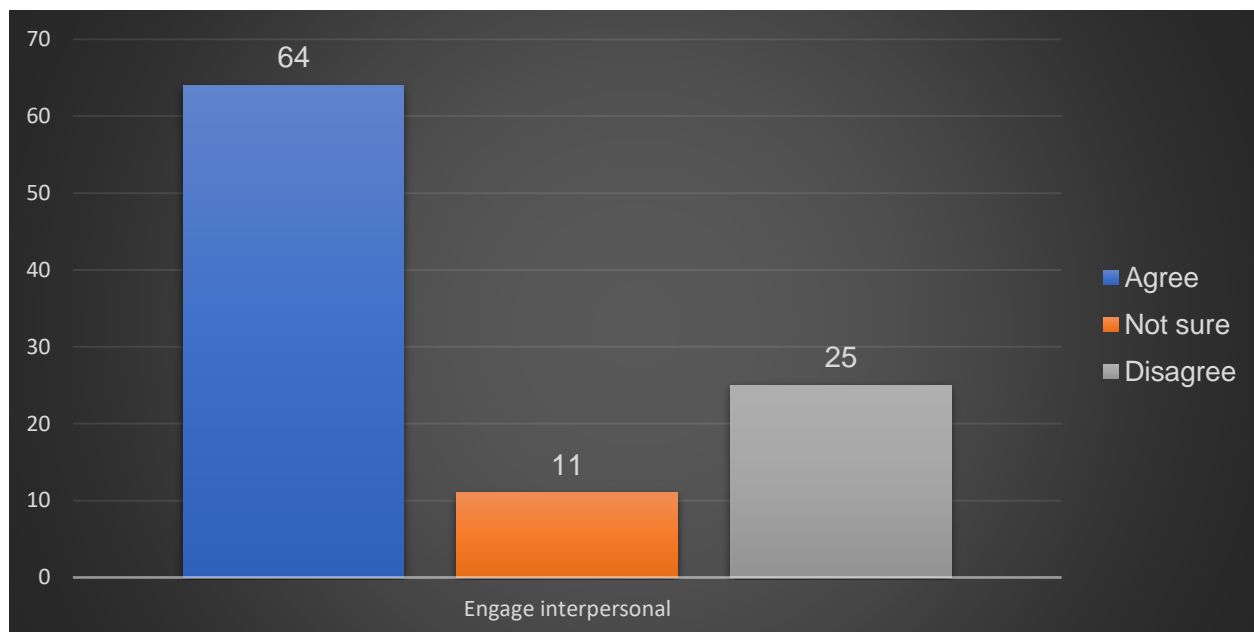
#### 4.5 Section B: importance of personal experience in solving environmental problems

The analyses are displayed using figures. The research questions addressed the research objectives of this study. The responses to the personal experiences important for learners in solving environmental crises are indicated in the respective figures. The respondents were asked to select from five choices. However, to analyze the data more effectively, the researcher combined responses indicating 'Strongly Agree' and 'Agree' to determine the total number of respondents who agreed with each statement. Similarly, answers for 'Strongly Disagree' and 'Disagree' were combined to ascertain the total number of respondents who disagreed with the statements. In the coding scheme, 'Strongly Disagree' is denoted as SD, 'Disagree' as D, 'Agree' as A, and 'Strongly Agree' as SA. The table below shows the results in percentages based on respondents' importance of personal experience in solving environmental problems.

Table 4.3: The summary of results in the form of percentages based on respondents' importance of personal experience in solving environmental problems

	SA	A	Total	Not sure	D	SD	Total
I engage in interpersonal discussions with others to not make them feel lonely.	36	28	<b>64</b>	11	15	10	<b>25</b>
The mistakes committed by others do not make me berate them.	21	51	<b>72</b>	15	6	7	<b>13</b>
I am always being truthful in my conversations with friends to serve as a good model to others.	24	53	<b>77</b>	18	3	2	<b>5</b>
I accord respect to other people to make them feel important and enjoy their living without fear.	41	47	<b>88</b>	8	3	1	<b>4</b>
I encourage that fair treatment must be given to everyone in my community.	59	31	<b>90</b>	8	2	0	<b>2</b>
I offer guidance to others when I see that they are misbehaving unacceptably in terms of social norms.	21	43	<b>64</b>	30	6	1	<b>7</b>

#### 4.5.1 Level of Agreement among Respondents on the Importance of Personal Experiences

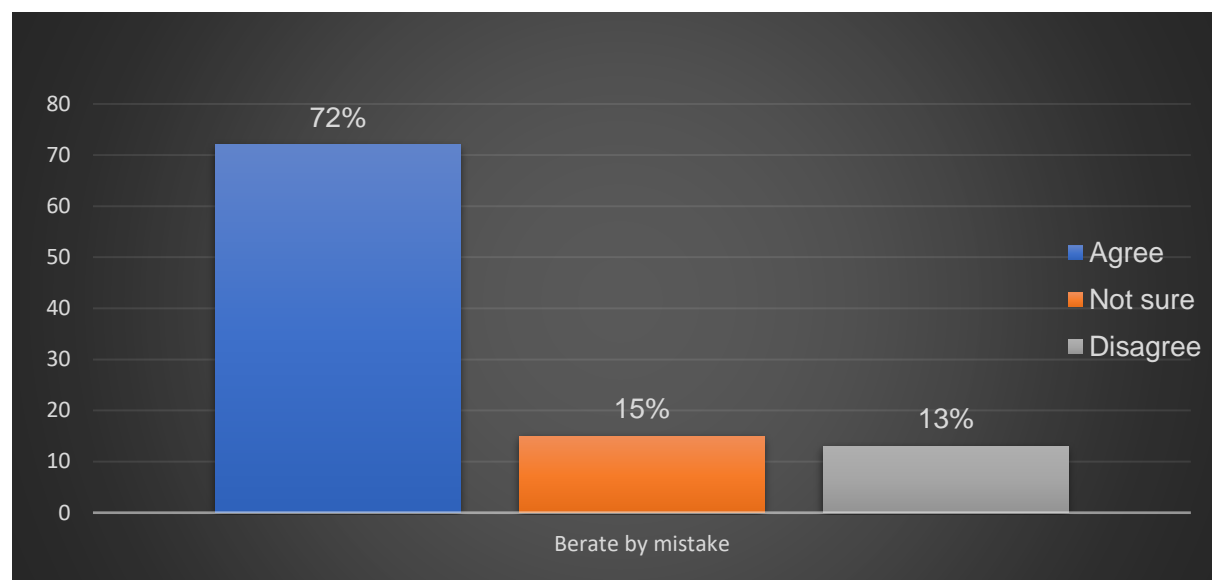


An analysis of the data from Figure 4.5 reveals that the majority of respondents, 64%, agree with the statement "I engage in interpersonal discussions with others not to make them feel lonely." Conversely, 25% of respondents disagree, while 11% are unsure. It is important to note that being a social learner is considered a secondary learning style; the primary learning styles include visual, verbal, kinesthetic, auditory, and logical. According to Hsu and Chang (2018), while interpersonal learners prefer to learn with others, students need to be comfortable working alone, especially in subjects like Life Orientation. Additionally, Duruk (2017) suggests learners often engage others in discussions to sort out their ideas and make great listeners.

#### 4.5.2 Level of Agreement among Respondents Regarding Criticism for Mistakes

The findings on the extent to which respondents agreed that they do not berate others based on the mistakes they commit are illustrated in Figure 4.6.

Figure 4.6 Berated by mistakes.

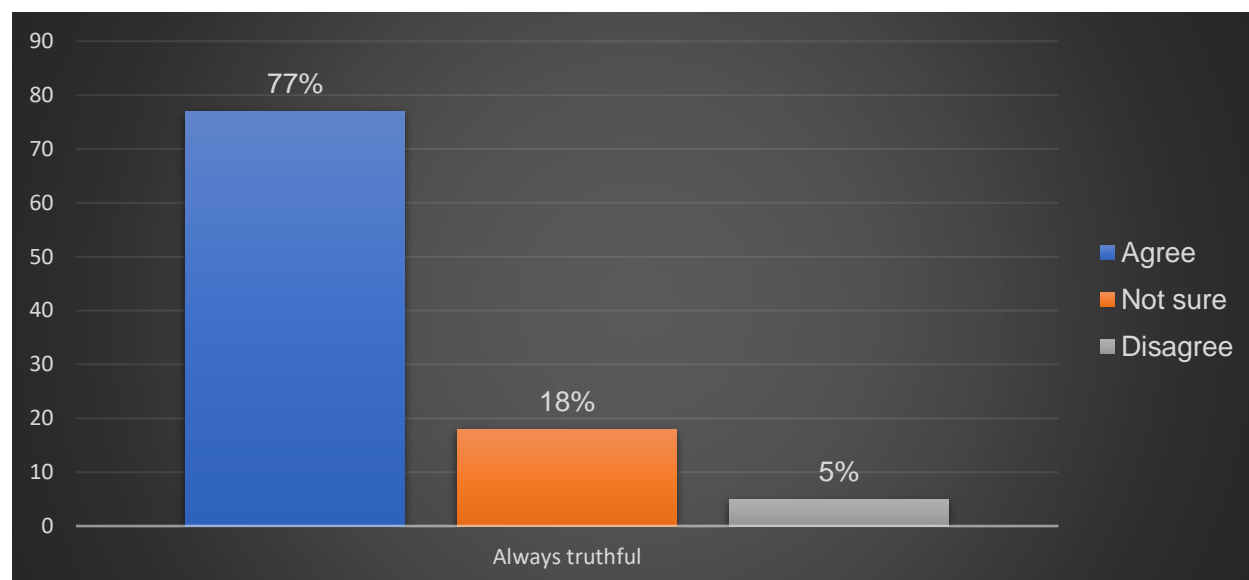


The results in Figure 4.6 show that 72% of respondents agreed with the statement, 'The mistakes committed by others do not make me berate them.' Conversely, 13% of respondents disagreed, while 15% were unsure. Furlan, Galeazzo, and Paggiaro (2019) posit that teachers perceive student problem behaviours as rule-breaking, violating implicit norms or expectations, being inappropriate in classroom settings, and disrupting teaching and learning. These behaviours typically require intervention from teachers. Additionally, the findings of this study are supported by Bender and Fish (2020), who indicate that teachers are concerned about classroom learning and student development and expect respect, obedience, order, and discipline in the classroom.

### 4.5.3 Level of Agreement among Respondents Regarding Always Being Truthful

The responses to the question of whether the respondents were always truthful in discussions with friends are highlighted in Figure 4.7.

Figure 4.7: Always truthful

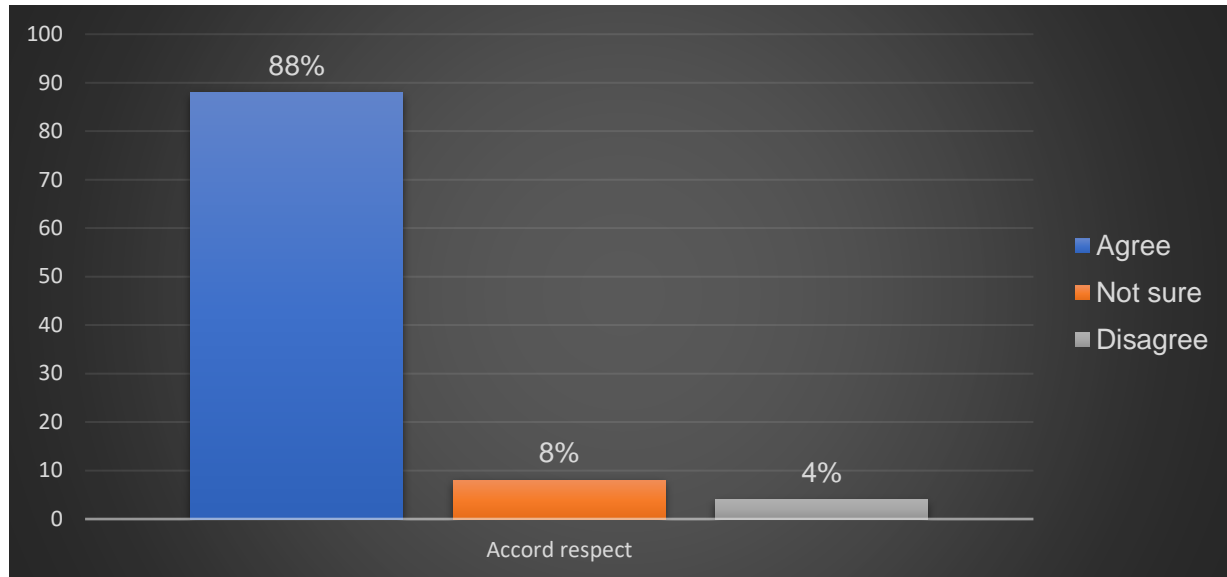


The results of this study revealed that most respondents, 77% agreed that they are always truthful in their conversations with friends to serve as good models for others. Conversely, 5% disagreed, while 18% were unsure as shown in Figure 4.7. Group work allows learners to interact with peers from diverse backgrounds in a personal setting rather than class discussions. According to Bolisani, Scarso, and Padova (2018), students helping other learners is a powerful classroom technique. Collaborative learning uses this approach to achieve content-focused and process-oriented goals crucial for college success. Overall, it can be deduced that respondents strive to be truthful in their conversations with friends. Additionally, collaboration with fellow learners increases motivation and helps learners take responsibility for their own and their peers' learning (Grez, Valcke, and Roozen 2019). Since collaborative learning experiences are not prevalent in teacher-centred classes, educators may lack models for designing environments that encourage peer-assisted learning. Furthermore, learners may not have had much experience with successful collaborative learning.

#### 4.5.4 Level of Agreement among Respondents regarding respect for others

This question was directed at the extent to which respondents accorded respect to other people, and the findings are shown in Figure 4.8.

Figure 4.8: Accord respect to others

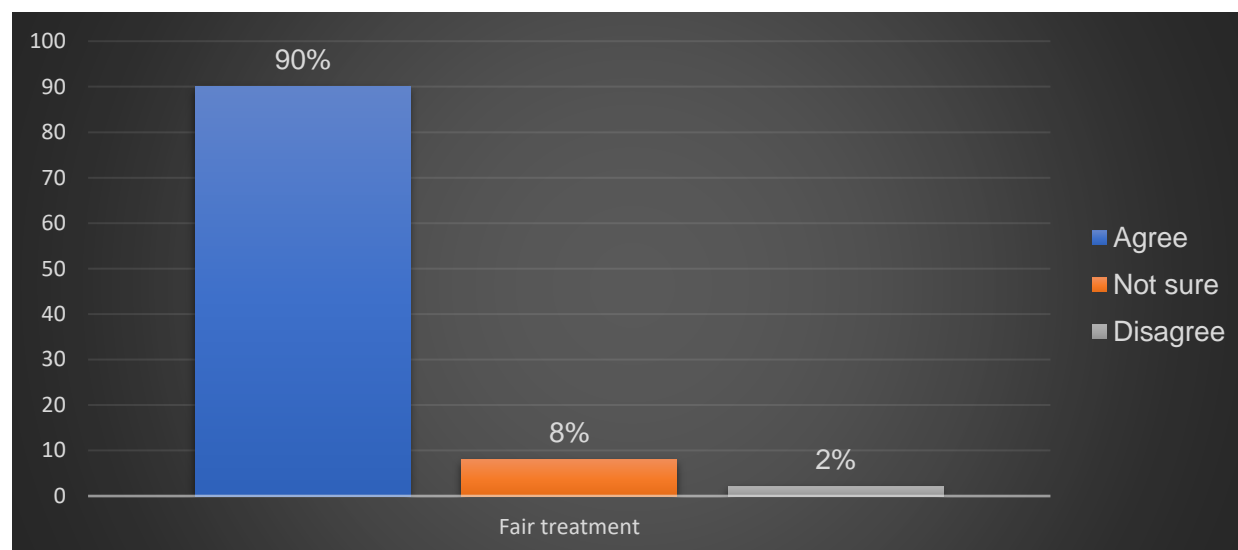


The study findings indicate that a significant majority of respondents, 88%, agreed that they show respect to others to help them feel valued and lead fulfilling lives without fear, as depicted in Figure 4.8. Conversely, 4% disagreed with this statement, while 8% were unsure. These results are consistent with the findings of Karr-Wisniewski and Lu (2018: 1010), who emphasize that demonstrating respect toward others is crucial in thought and action. Additionally, Furlan, Galeazzo, and Paggiaro (2019: 239) suggest that receiving respect from significant figures during upbringing instills the importance of respectful behaviour towards others.

#### 4.5.5 Level of Agreement among Respondents Regarding Fair Treatment for Everyone

The findings on the extent to which the respondents agreed that fair treatment should be given to everyone are shown in Figure 4.9.

Figure 4.9: Fair treatment to everyone



The analysis of this study revealed that the majority (90%) agreed with the statement "I encourage that fair treatment must be given to everyone in my community". Only 2% of respondents disagreed, while 8% were unsure as shown in Figure 4.9. The results of this study are aligned with the one that was conducted by Lionel, Pierce, Marquis, Kim, and Alahmad (2020) who suggested that fair treatment means 'you fairly treat your students when your attitude towards all of them is the same regardless of who they are.' This implies that showing favouritism towards certain students indicates unfair treatment. Since fairness is perceived based on interpretations of behaviour rather than intentions, many instructors may inadvertently engage in what students perceive as unfair behaviour. Although one might expect students to be most concerned with outcome or procedural fairness because it affects their grades, Hsu and Chang (2018: 124) indicate that students consider violations of interactional fairness to be the most severe. According to Alahmad (2020), interactional fairness refers to the interaction between instructors and students, encompassing impartiality, respect, integrity, concern and support for students.

#### 4.5.6 Level of Agreement among respondents regarding Offering guidance

The findings on the extent to which respondents offered guidance to others are shown in Figure 4.10

4.10: Offering guidance.

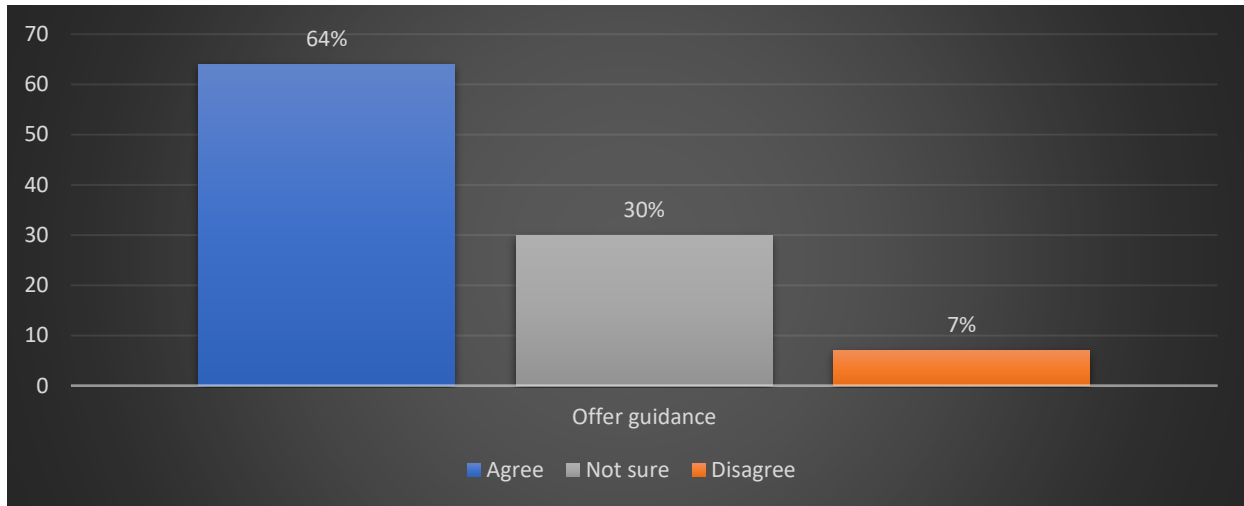


Figure 4.10 reveals that almost three-quarters of the respondents (64%) agreed that they offer guidance to others when they unacceptably misbehave in terms of social norms. Conversely, 7% disagree, while 30% are not sure. In the classroom, the biggest challenge teachers may face is dealing with learners exhibiting challenging behaviour. According to Clercq and Belausteguigoitia (2019: 9), the emphasis should be on building on learners' strengths rather than criticizing their weaknesses and using positive reinforcement to promote good behaviour. This approach involves giving children clear guidelines for acceptable behaviour and supporting them as they learn to abide by them. It actively promotes child participation and problem-solving and encourages adults to become role models for the youngsters in their care.

This section concludes by highlighting the importance of assessing personal experiences to determine their role in solving environmental crisis problems. The educational experience encompassed key moments, including framing, joint planning of individual and group activities, and development (Alahmad, 2020). This emphasizes the need for more intensive research on content and context to reconnect social and environmental responsibility with learners' lived environments. Such an initiative has the potential to enhance networking among Life Orientation academics, ultimately aiming to elevate the status and value of this fundamental school subject among learners.

#### 4.6 Section C: Learners' Application of Skills to make decisions

This section presents findings on the evaluation of learners' application of skills to make decisions. One of the objectives of the study was to determine whether learners apply their skills to make decisions. The respondents were asked to select from five choices. However, to analyze the data more effectively, the researcher combined responses indicating 'Strongly Agree' and 'Agree' to determine the total number of respondents who agreed with each statement. Similarly, responses for 'Strongly Disagree' and 'Disagree' were combined to ascertain the total number of respondents who disagreed with the statements. In the coding scheme, 'Strongly Disagree' is denoted as SD, 'Disagree' as D, 'Agree' as A, and 'Strongly Agree' as SA as shown in below Table 4.4.

**Table 4.4: Summary of results in the form of percentages based on respondents' learners' Application of Skills to make decisions**

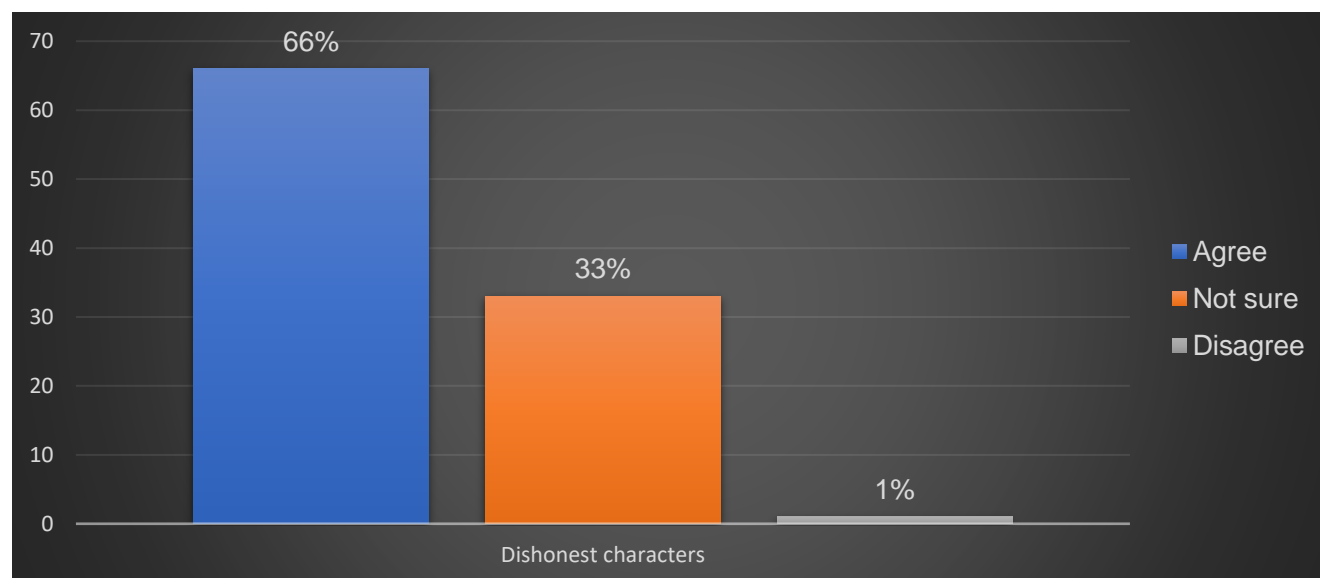
Statements	SA	A	Total	Not sure	D	SD	Total
I do away with dishonest characters to be an example for others to follow in promoting decency in my environment.	20	46	<b>66</b>	<b>33</b>	1	0	<b>1</b>
I participate in the destruction of plants and trees in the name of creating environmental expansion or urbanization.	15	29	<b>44</b>	<b>23</b>	17	16	<b>33</b>
My dressing pattern is not to attract attention.	30	34	<b>64</b>	<b>17</b>	12	7	<b>19</b>
I avoid the excessive consumption of commodities than required.	10	40	<b>50</b>	<b>38</b>	12	0	<b>12</b>
I put the needs of others into consideration when it comes to using public resources.	20	54	<b>74</b>	<b>16</b>	9	1	<b>10</b>

The results presented in Table 4.4 will be discussed further in the next section.

#### 4.6.1 Level of Agreement among Respondents on Statement about Dishonest Characters

The participants' responses on whether they do away with dishonest characters to be an example for others to follow in promoting decency are presented in Figure 4.11.

Figure 4.11: Dishonest Characters

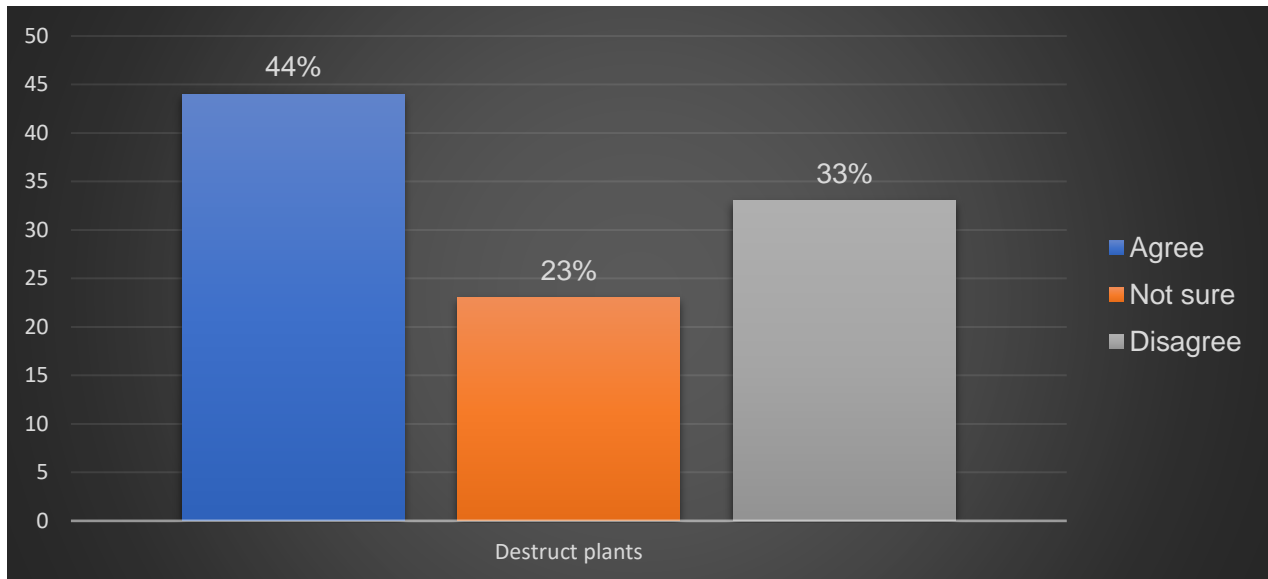


The findings from Figure 4.11 suggest that 66% of respondents agreed that eliminating dishonest characters can set an example for promoting decency. However, 1% disagreed, and 33% were unsure whether to agree or disagree. The notably high percentage of respondents who were uncertain posed a threat to school culture. If learners cannot recognize dishonest characters as examples for promoting decency, it can have far-reaching negative consequences on their behaviour, social norms, and society's moral fabric. Addressing this challenge is crucial. Furlan, Galeazzo, and Paggiaro (2019: 241) emphasize that teaching is a dynamic process that requires meaningful collaboration between teachers and learners. In short, collaboration between teachers and learners can be an effective solution in addressing learners who are unsure about dishonest characters. One reason is that this collaboration can raise awareness about the importance of honesty and integrity. Furthermore, through collaboration, teachers can clarify the values of honesty, integrity, and decency and help students understand why these values are important in society.

#### 4.6.2 Respondents' Consensus on Statements Concerning Plant Destruction

The findings on participants' reactions to the destruction of plants are shown in Figure 4.12.

Figure 4.12: Destruction of plants



The findings of the study reveal that 44% of respondents indicate that urban populations of learners interact with their environment, however, 33% disagree and 23% were not sure as shown in Figure 4.12.

### 4.6.3 Level of Agreement among Respondents on Dressing with Intention to Avoid Attention

The findings on the participants' views regarding dress codes are shown in Figure 4.13.

Figure 4.13: Dress

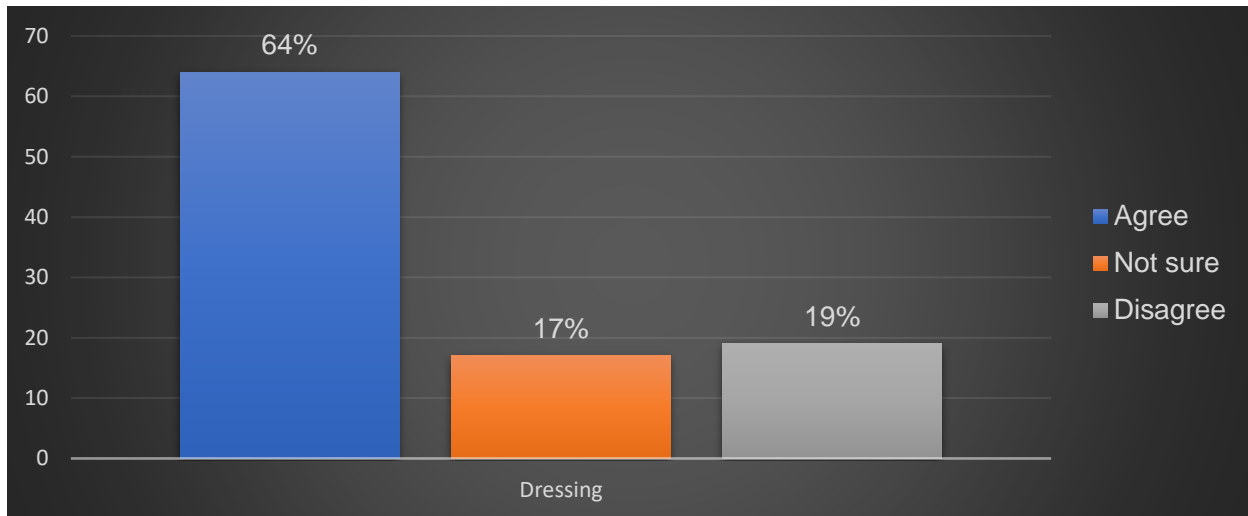
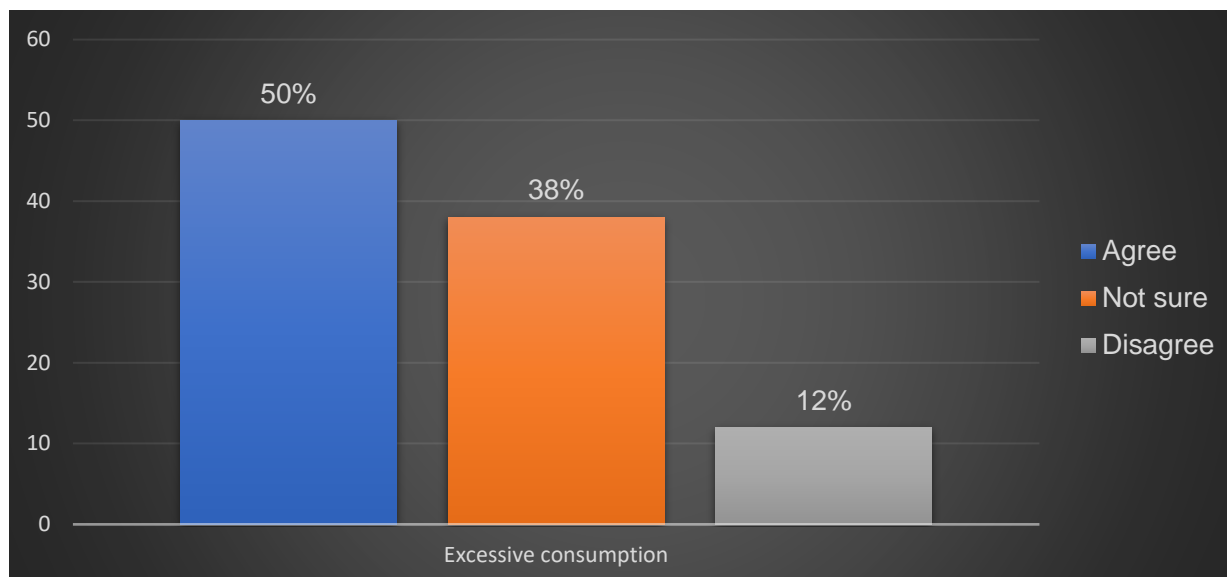


Figure 4.13 highlights strong support among learners regarding their attitudes towards learning, dress, and the influence of attire on learning outcomes. Specifically, 64% of respondents strongly affirmed that their dressing pattern is not intended to attract attention, 19% disagreed with this statement, and 17% were unsure. According to Bolisani, Scarso, and Padova (2018: 228), expressions through dress codes vary significantly across generations. Both teachers' and learners' attire is influenced by personal preference, classroom conditions, delivery mode, comfort, preparation, subject knowledge, and ability. Therefore, dressing plays a significant role in predicting learners' engagement and academic performance. Dressing affects learners' self-perception and confidence. When students feel comfortable and confident in their attire, they may be more likely to actively participate in class discussions, engage with peers and teachers, and feel more positive about their learning environment. Furthermore, dressing appropriately for school can signal readiness and preparation for learning. It can contribute to a disciplined approach to academic activities and signify respect for the learning environment, potentially enhancing concentration and focus during classes.

#### 4.6.4 Level of Agreement among Respondents regarding Avoiding Overconsumption of Commodities

Figure 4.14 shows the findings on participants' views on whether they avoided excessive consumption of commodities required.



The results in Figure 4.14 show that 50% of respondents agree that they avoid excessive consumption of necessary commodities. In contrast, 12% disagree, and 38% are unsure. These findings suggest that most learners believe sustainable consumption and production involve doing more and better with less. This approach includes decoupling economic growth from environmental degradation, increasing resource efficiency, and promoting sustainable lifestyles. Lionel (2020: 548) supports these results, affirming that sustainable consumption and production can significantly contribute to poverty alleviation and the transition towards low-carbon and green economies.

#### 4.6.5 Level of Agreement among Respondents on Public Resource Use and Considering Others' Needs

The responses to the question of whether the respondents considered others are shown in Figure 4.15

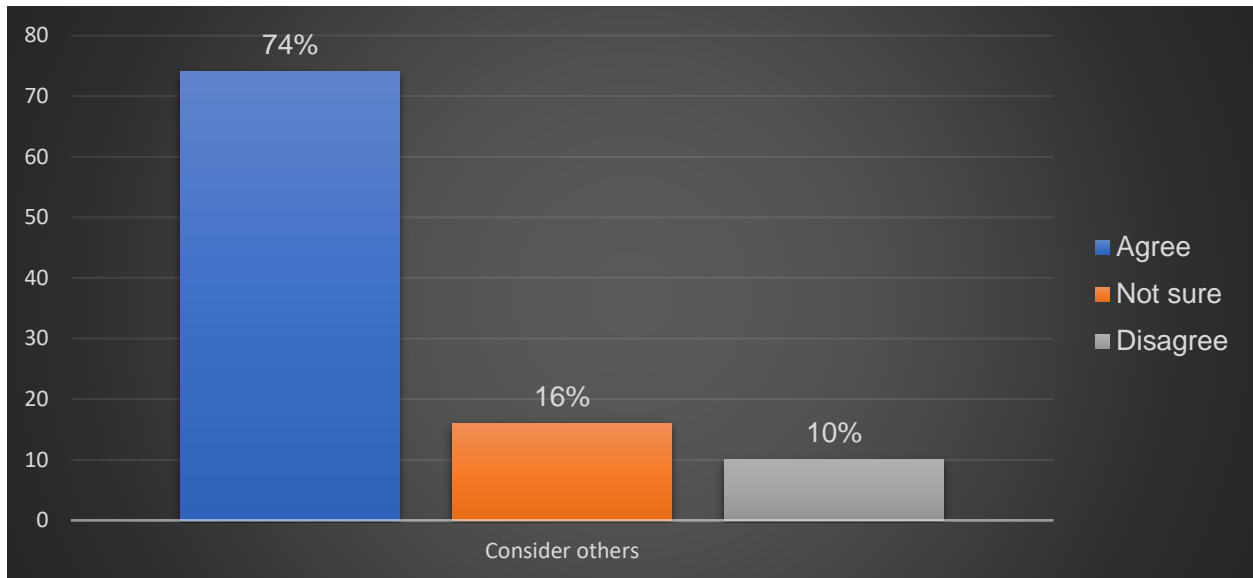


Figure 4.15 illustrates that 74% of respondents agree on considering the needs of others when using public resources, while 10% disagree, and 16% are unsure. According to Bender and Fish (2020: 133), many school districts face constraints in discretionary resource allocation, impacting efforts to improve student achievement. The findings of this study suggest that respondents prioritize addressing the needs of fellow learners in resource distribution. Lionel (2020: 549) further supports these findings, emphasizing that supportive higher education departments empower principals in budgeting decisions, allocate resources to schools with greater needs, and effectively optimize educator and student time.

#### 4.7 Section D: Knowledge Gained and values addition to Learners' image.

The respondents were asked to select from five choices. However, to analyze the data more effectively, the researcher combined responses indicating 'Strongly Agree' and 'Agree' to determine the total number of respondents who agreed with each statement. Similarly, responses for 'Strongly Disagree' and 'Disagree' were combined to ascertain the total number of respondents who disagreed with the statements. In the coding scheme, 'Strongly Disagree' is denoted as SD, 'Disagree' as D, 'Agree' as A, and 'Strongly Agree' as SA as shown in below Table 4.5.

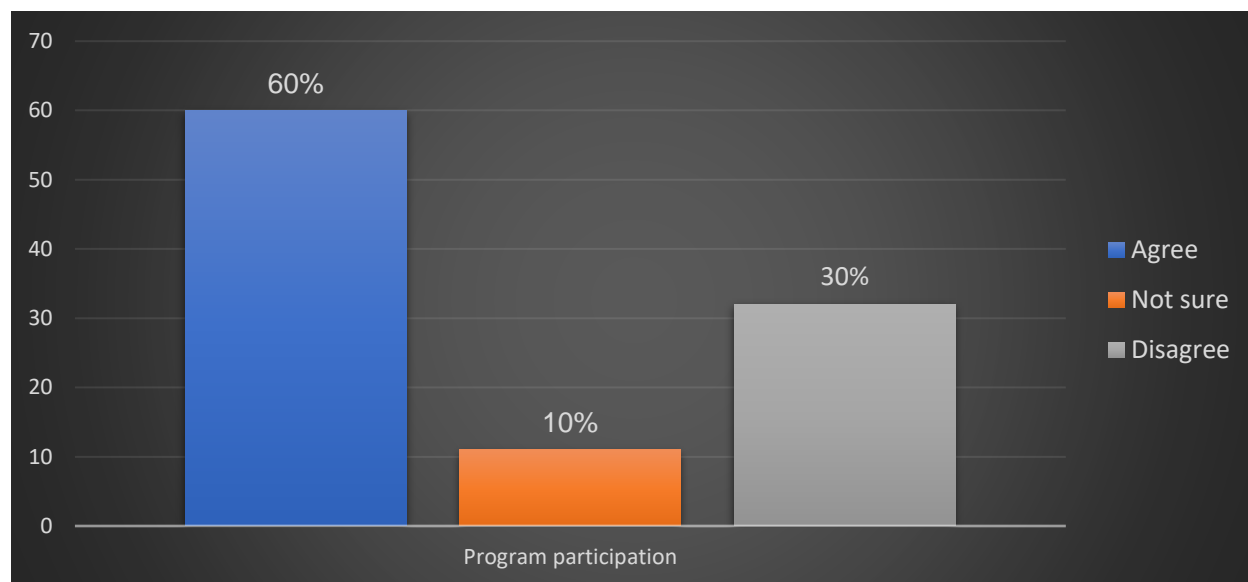
**Table: 4.5: The summary of results in the form of percentages based on respondents' Knowledge Gained and values addition to Learners' image.**

Statements	SA	A	Total	Not sure	D	SD	Total
I participate in programmes that can help in the control of pollution, disease, and actions that can result in environmental disorder.	25	35	60	10	26	4	30
I make donations of material waste that can be recycled to help other people in my community meet their needs.	13	49	64	11	20	5	25
I engage in farming activities that can enable the production of more food in my community.	10	29	39	21	36	4	40
I engage in crop rotation to preserve the soil value and nutrients.	10	37	47	17	28	8	36
I use manure in my farming to produce more soil nutrient	9	38	47	14	36	3	39
I can manage my anger without affecting other people in my area	31	44	75	15	4	6	10
I accept responsibility for any mistake that I may commit in the course of my duty.	25	62	87	8	5	0	5

The decision to aggregate responses from respondents who strongly disagreed and disagreed was made to accurately gauge the number of individuals who disagreed with the statements or questions. Likewise, combining responses from those who agreed and strongly agreed helps to determine the number of respondents who agree with the statements. The next subsection focuses more on a detailed analysis of the above table.

#### 4.7.1 Level of Agreement among Respondents on Program Participation Statement

The findings on the participants' involvement in program participation are shown in Figure 4.16.



The results of this study show that 60% of respondents participate in programs aimed at controlling pollution, disease, and environmental disorders. However, 30% disagreed, and 10% were unsure. For learners, protecting the environment enhances their reputation among peers. Zhu, Chiu, and Holguin-Veras (2018: 81) note that various projects and campaigns can influence the habits of fellow learners and protect the environment. This study's findings indicate that respondents are willing to engage in such programs. Additionally, Zahra, Neubaum, and Hayton (2020: 163) emphasize the crucial role learners play in mitigating environmental pollution. Consequently, learners actively clean up litter in classrooms, at home, on playgrounds, and in laboratories.

#### 4.7.2 Level of Agreement among Respondents Regarding Donations of Recyclable Material Waste

The findings on participants' views regarding donations to charity are presented in Figure 4.17.

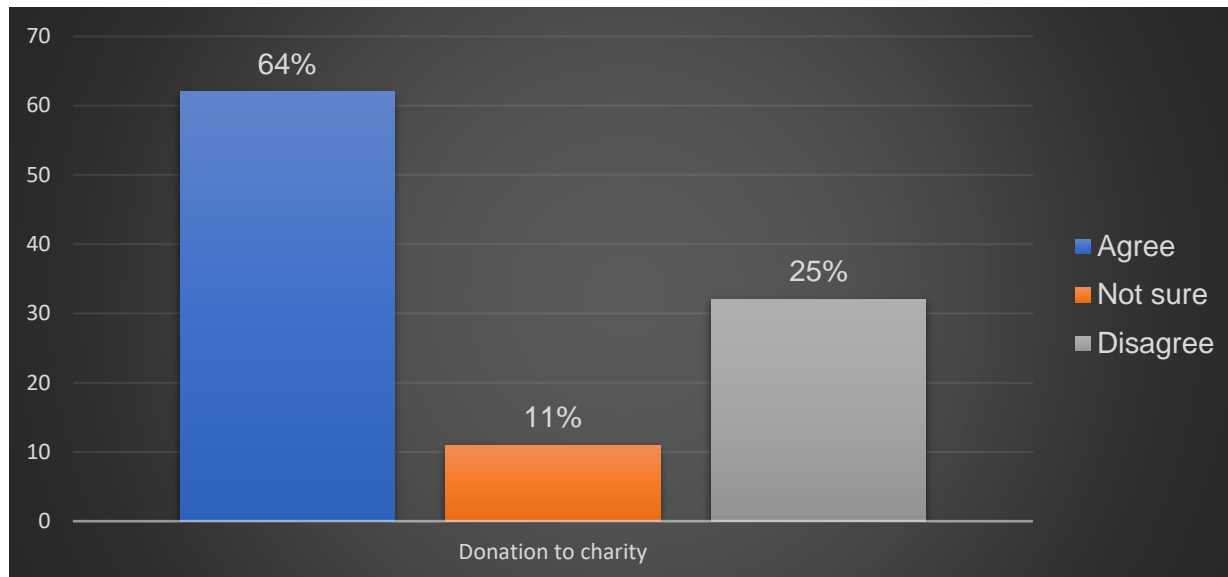


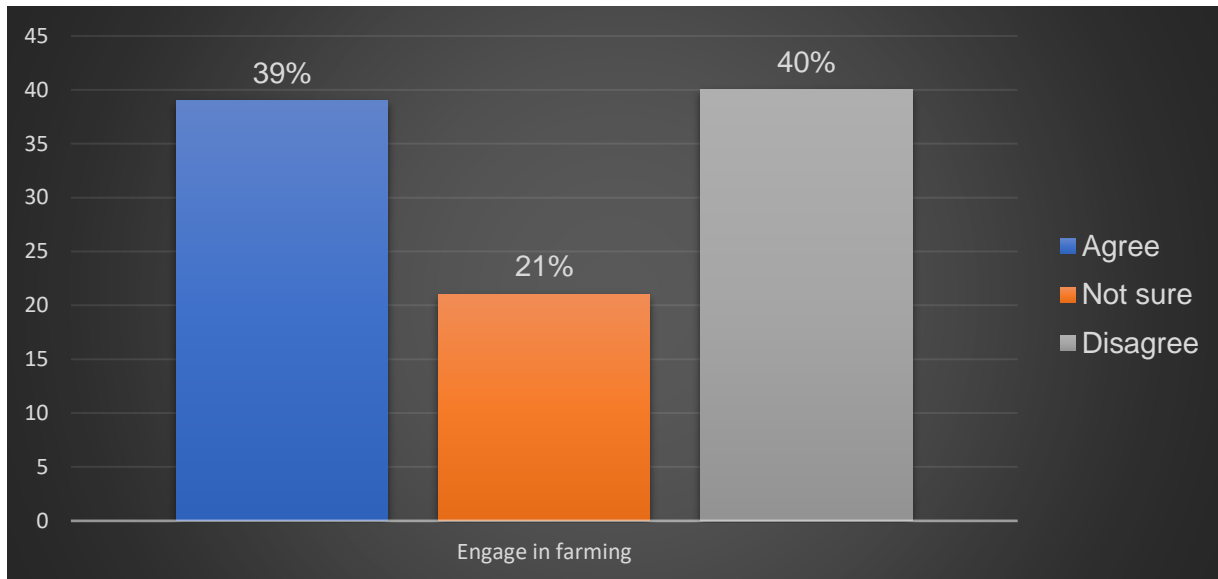
Figure 4.17: Donations to a charity

Figure 4.17 shows 64% of respondents who agreed that they "make donations of material waste that can be recycled to help other people in my community meet their needs." However, 25% of respondents disagreed with this statement, and 11% were unsure. This suggests that the majority of respondents are willing to recycle materials to help others. Moreover, recycling in the classroom can easily become a daily activity. Zhu, Chiu, and Holguin-Veras (2018: 82) support these findings, stating that as teachers incorporate recycling activities into learners' routines, recycling will become second nature to them. Recycling instills a lifelong habit of sustainability and demonstrates that even the smallest actions matter.

### 4.7.3 Level of Agreement among Respondents on Engaging in Farming Activities

Figure 4.18 presents the findings on the participants' engagement in farming activities.

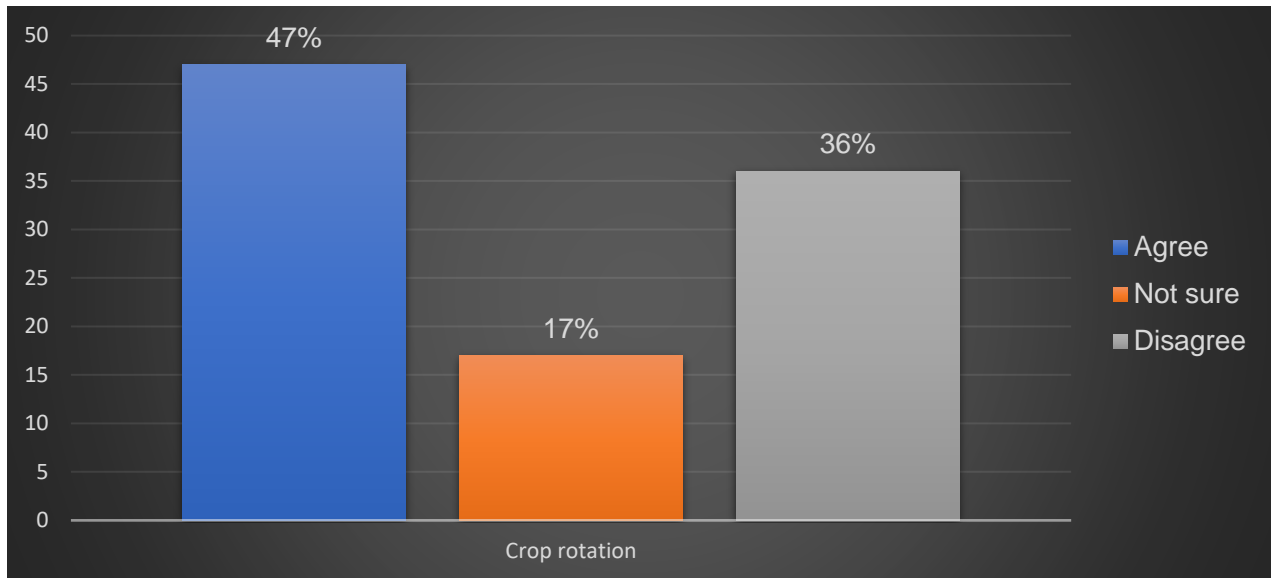
Figure 4.18: Engage in Farming



The study's results indicate that 40% of respondents disagree with "I engage in farming activities that can enable the production of more food in my community," while 39% agree, and 21% are unsure, as shown in Figure 4.18. The 21% of unsure respondents suggest a need for increased awareness about farming activities in schools. Engaging learners in agriculture has recently become a prominent topic on the development agenda, reflecting global concerns about students' declining interest in agriculture. Moreover, a majority of respondents disagreed that they were taught how to grow high-value crops in schools. These findings contrast with those of Chen, Castro-Alonso, Paas, and Sweller (2018: 486), who note the increasing popularity of farm-to-school programs nationwide. While these initiatives by individual community members, their success often requires collaborative efforts among multiple community members and organizations.

#### 4.7.4 Level of Agreement among Respondents on Engaging in Crop Rotation to Preserve Soil Value and Nutrients

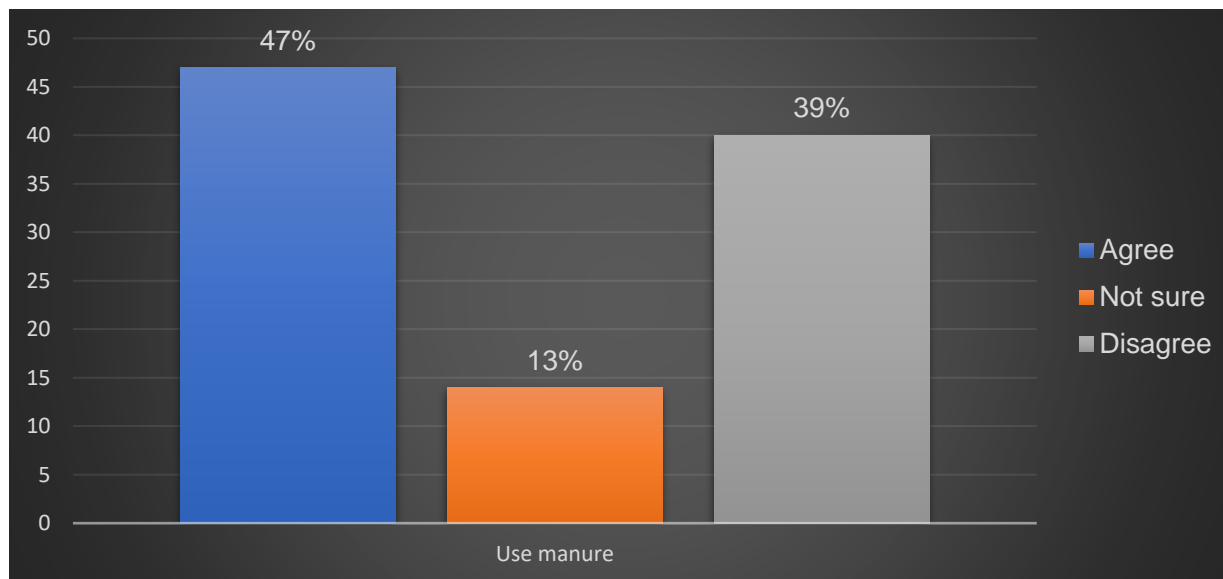
The findings for the extent to which the participants engaged in crop rotation practices are presented in Figure 4.19.



The study results revealed that the majority of respondents (47%) agree that they engage in crop rotation to preserve soil value and nutrients. In contrast, 36% of respondents disagree, and 17% are unsure, as shown in Figure 4.19. Soil fertility is crucial for plant growth, providing all necessary conditions. Karr-Wisniewski and Lu (2018) emphasize that a balanced intake of nutrients is essential in school farming. Growing the same crop annually depletes the soil of essential nutrients for that specific crop. Bolisani, Scarso, and Padova (2018) further explain that different crops have varying nutrient requirements, so crop rotation allows for the uptake of diverse nutrients each year. The study results indicate that most learners recognize the benefits of reintroducing and re-inoculating soil with beneficial organisms. This practice supports the growth of various crops by optimizing nutrient and water availability, thereby promoting healthy and robust plants that reach their genetic potential.

#### 4.7.5 Level of Agreement among Respondents Regarding the Use of Manure in Farming to Enhance Soil Nutrient Levels

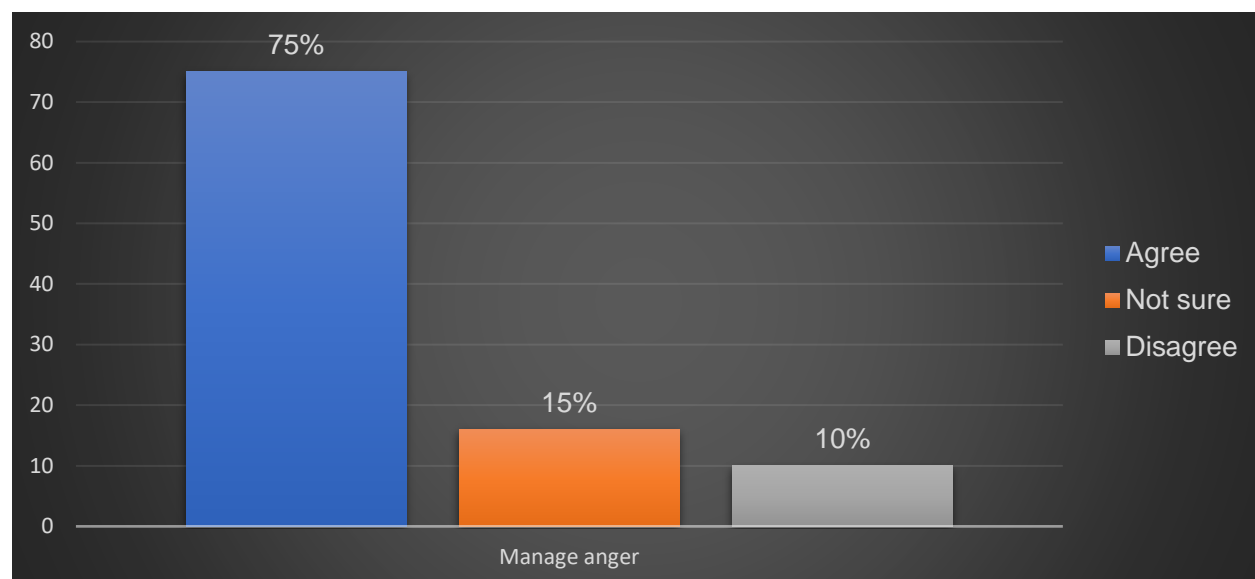
Figure 4.20 shows the findings on the use of manure in farming by the participants.



As depicted in Figure 4.20, the average level of agreement is 47%, meaning that the majority agree with the statements. The highest percentage of 47% of respondents agreed that they use manure in their farming to produce more soil nutrients. The results are supported by Benis and Ferrao (2018: 38) who found that most schools use animal manure applications when farming to produce more soil nutrients as it can increase soil organic matter in medium- or long-term application periods. Consequently, manure contributes to reducing soil bulk density and compaction, increasing soil aggregate stability, water infiltration, and retention. Therefore, it can be concluded that taken together, manure helps reduce erosion, ponding, and crop stress.

#### 4.7.6 Level of Agreement among Respondents Regarding Anger Management Techniques that Minimize Impact on Others in the Community

The findings related to how the participants dealt with anger management issues are shown in Figure 4.21



The findings indicate that anger is a normal, healthy emotion and is neither good nor bad. The study shows that most learners manage anger without affecting other people in their area with 75% of respondents agreeing with the statement (Figure 4.21). Anger will come out regardless of how hard one tries to tamp it down. According to Zhu, Chiu, and Holguin-Veras (2018: 83), managing anger does not mean never getting angry. Instead, it involves learning how to recognize, cope with, and express one's anger in healthy and productive ways. Bender and Fish (2020: 132) supported the statement of Hsu and Chang (2018: 129) and added that anger is an emotion that can range from mild irritation to intense rage. While many learners in schools categorize anger as a solely “negative emotion”, it can be positive. Angry feelings may spur a learner to stand up for someone or they may lead to create social change. Therefore, it can be concluded that teachers must understand what triggers the anger whether normal or out of control, and how to teach coping mechanisms to avoid or calm an angry episode.

#### 4.7.7 Level of Agreement among Respondents Regarding Accepting Responsibility for Mistakes Made in the Course of Duty

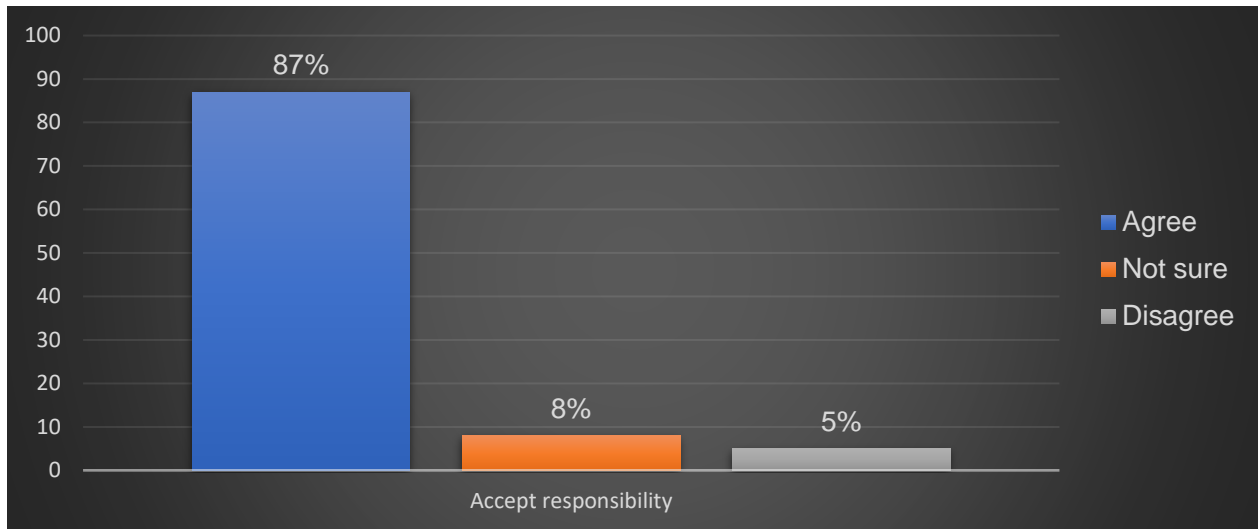


Figure 4.22: Accept responsibility

The results of this study revealed that 87% of respondents agree with the statement 'I accept responsibility for any mistakes I may commit in the course of my duties.' However, 5% disagreed, and 8% were unsure.

#### 4.8 Conclusion

This chapter presents the findings of the study. The study used a questionnaire administered to learners studying at Sithokozile Secondary School in KwaZulu-Natal. The questionnaires were deemed to be reliable and achieved their objective. Tables and graphs are used to present the collected data, which helps to provide a detailed analysis of data. In addition, the chapter also reviewed the statistical methods used to analyze the data such as factor analysis and Pearson's correlation. The inferential statistics performed reflect a significant relationship between different variables, a measure of reliability and relevance of the research instrument.

The findings of the descriptive statistics also review that most of the learners in Intermediate grades and learners in higher grades appear to value life orientation as an important learning area. Life orientation is not ranked as the most important learning area, but also not as the least important. Moreover, the results review the higher-grade learners' choices of themes and topics that coincide with those prioritized in life orientation, pointing to the relevance of the learning area. Recommendations on the impact of life orientation as a pathway to Environmental Sustainability

will be made in the following chapter. Student teachers observed that educators indicated they used group work, facilitation, and experiential methods during the structured interviews, but in the reality of the classroom, this did not happen. The next chapter gives a conclusion to the study, summarising the research findings and making recommendations for improvements and future research areas.

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

The previous chapter analysed, interpreted, and discussed the findings derived from primary data using descriptive statistics. This chapter presents the key findings and conclusions for each research objective. Additionally, it offers recommendations based on the study's results, identifies areas for future research.

### 5.2 Summary of the key findings

The key findings of this study are summarised as follows:

- ✚ The majority of participants (48%) were aged 18-19, indicating high availability and engagement from this demographic. Those aged 16-17 comprised 38% of the total, showing another strong representation of younger individuals. Respondents aged 20-21 accounted for 11%, reflecting a moderate participation rate, while the lowest participation came from those aged 22 and above, making up only 3% of the sample.
- ✚ The study found that most respondents engage in interpersonal discussions to help others avoid loneliness. However, 25% of respondents disagreed with this statement, and 11% were unsure. While social learning is acknowledged, it is considered secondary to primary learning styles such as visual, verbal, kinesthetic, auditory, and logical approaches.
- ✚ A significant 72% of respondents indicated that they do not criticise others for their mistakes. In contrast, 13% expressed disagreement with this sentiment, while 15% remained uncertain. This suggests a generally supportive attitude among participants regarding the errors of others.
- ✚ A substantial 77% of respondents reported that they consistently strive to be truthful in their conversations with friends, aiming to serve as positive role models. Conversely, 5% disagreed with this sentiment, while 18% expressed uncertainty.
- ✚ The findings from the primary research are summarised in this section. Most respondents (62%) agreed that they engage in interpersonal discussions with others not to make them feel lonely. Duruk (2017: 89) confirms that interpersonal learners will often engage others in discussions to sort out their ideas, but they also make great listeners. This finding speaks to

the objective of the social influence of Life Orientation studies on promoting environmental sustainability.

- ✚ Additionally, the findings revealed that most respondents (72%) agreed that they do not berate others based on the mistakes they commit. These findings are supported by the results of Bender and Fish (2020: 131), who confirm that teachers are concerned about classroom learning and student development, and they expect respect, obedience, order, and discipline in the classroom.
- ✚ From the findings, most respondents (77%) agreed that they are always truthful in their conversations with friends to serve as good models to others. This is confirmed by Bolisani, Scarso, and Padova (2018: 227) who postulate that students helping other learners learn that this is a powerful classroom technique. These two findings support the objective of the primacy of equipping young people with Life Orientation skills to help mitigate environmental crises.
- ✚ The findings from the study confirmed that most of the respondents (88%) agreed that they accord respect to other people to make them feel important and enjoy their living without fear. Furlan (2019: 239) posits that being respected by important people in one's life while growing up teaches one how to be respectful toward others.
- ✚ The findings further revealed that respondents offered guidance to others, as almost three-quarters of respondents (64%) agreed that they offered guidance to others. This is supported by Clercq and Belausteguigoitia (2019: 9) who postulate that the emphasis should be on building on learners' strengths rather than criticizing their weaknesses and using positive reinforcement to promote good behaviour. These findings align with the objective of the influence of the application of learners' Life Orientation skills on environmental sustainability.
- ✚ This section had questions related to respect for other people, dislike for dishonest characters, reaction to the destruction of plants, Dress code, and excessive consumption of commodities. The findings are summarised in this section.
- ✚ Most respondents (65%) agreed that they accord respect to other people to make them feel important and enjoy their living without fear. These findings are supported by Karr-Wisniewski and Lu (2018: 1010) who postulate that being respectful toward others is one part of a puzzle as thinking and feeling are just as important as what somebody else thinks and feels.

- ✚ Additionally, 66 percent of the respondents agreed that they do away with dishonest characters to be an example for others to follow in promoting decency. Furlan, et al. (2019: 241) confirm that teaching is a dynamic process that involves teachers and learners in meaningful and collaborative efforts. Consequently, interaction in the classroom is of vital importance for the enhancement of the teaching and learning process.
- ✚ The findings further indicated that almost half of the respondents (44.5%) agreed that they participate in the cutting down of plants and trees in the name of creating environmental expansion or urbanization. Consequently, this affects the health and quality of life of the urban population. Therefore, urbanization also affects the broader regional environments.
- ✚ Moreover, the findings revealed that most respondents (64%) agreed that their dressing pattern is not to attract attention. This implies that dressing is a significant predictor of learners' attentive learning. Additionally, half (50%) of the respondents agreed that they avoid the excessive consumption of commodities that are required. Lionel (2020: 548) affirms that sustainable consumption and production can contribute to poverty alleviation and the transition towards low-carbon and green economies.
- ✚ The results also confirm that most respondents (74%) agreed that they put the needs of others when it comes to using public resources, thereby indicating respondents' consideration of the needs of other learners when it comes to using public resources.
- ✚ The findings indicated most respondents (60%) agreed that they participate in programmes that can help in the control of pollution, and diseases, that can result in environmental disorders. This is supported by Zahra, et al. (2020: 163) who confirm that learners have a great role in controlling and advocating the ills and evils of environmental pollution.
- ✚ The findings also revealed that most respondents (64%) agreed that they make donations of material waste that can be recycled to help other people in the community meet their needs. Zhu, et al. (2018: 82) support the findings, postulating that as teachers try implementing one or more of these recycling activities into learners' routines, recycling will be second nature to the learners.

- ✚ The findings also revealed that half of the respondents (50%) agreed with the statement that they engage in crop rotation to preserve the soil value and nutrients. Bolisani, Scarso, and Padova (2018: 229) add that since each crop does not have the same nutrient requirements, crop rotation allows the uptake of various nutrients from year to year, depending on the crop.
- ✚ The findings further indicated that anger is a normal, healthy emotion, neither good nor bad and most respondents (85%) agreed with the statement. Bender and Fish (2020: 132) confirm that anger is an emotion that can range from mild irritation to intense rage. Therefore, it was concluded that teachers must understand what triggers the anger, whether normal or out of control, and how to teach coping mechanisms to avoid or calm an angry episode.

### **5.3 Conclusion of the research objectives**

In the following sections, conclusions are presented for each of the research objectives. As indicated in the next section, conclusions are based on a scientific, statistical analysis of the empirical findings.

#### **5.3.1. Social Influences of Life Orientation Studies in Promoting Environmental Sustainability**

This objective seeks to identify the social influences of life orientation studies on promoting environmental sustainability. Based on the results presented in the present chapter, it is concluded that there is a need for a paradigm shift and make the environment an integral part of economic prosperity. To this end, it is essential to curb the escalating indicators of environmental degradation, such as global warming, climate variability, ozone layer depletion, and widespread pollution of soil and water, through careful control of human behaviours toward nature. This will require policy directions for robust environmental protection measures and expanded educational initiatives focused on sustainability.

### **5.3.2 Imparting youngsters with Life Orientation skills contributes to reducing environmental crises.**

This objective seeks to determine how equipping young people with life-orientation skills helps mitigate environmental crises. It is concluded that people, especially learners, should be made to sharpen their Life Orientation skills to enable them to interpret the world around them and readjust their behavioural disposition toward the protection of the environment. This will enable them to appreciate the richness of nature using their indigenous knowledge systems. Learners should be encouraged to inquire about the environmental peculiarities in their respective areas.

### **5.3.3 Learners' use of Life Orientation skills to influence environmental sustainability.**

This sub-objective seeks to assess how learners can effectively apply their life orientation skills to influence environmental sustainability. It is, therefore, concluded that teaching Life Orientation should include adequate recognition of the diverse strengths and weaknesses of learners to ensure proper guidance in accommodating them. This will go a long way in instilling confidence in the learners to be more skilful about their environment. To this end, schools should encourage enhanced and inclusive education by designing curricula that provide opportunities, alternative instructional methods, and flexible assessments for learners facing barriers to learning. In addition, there is a need to promote and encourage pro-environmental behaviour to ensure the protection and preservation of the environment.

### **5.3.4 Youth Orientation Programs to Strengthen Youth Impact on Environmental Sustainability.**

This sub-objective seeks to provide recommendations for youth orientation programmes to enhance their influence on environmental sustainability. It can be concluded, therefore, that relevant authorities should endeavour to design programmes that would cater to the need for environmental protection and sustainability. This will include the establishment of environmental protection clubs and associations in schools to create the necessary awareness. Regular excursions and visits for the exchange of ideas among learners and practitioners are essential. Youth should be equipped with the requisite skills, both in practice and theory, to guarantee a sustainable environment.

## **5.4 Recommendations based on the results of the study**

The study recommendations emanated from the results of the study in Chapter Four. Additionally, some of the recommendations came from the respondents' comments as spoken words. These are presented in this section.

### **5.4.1 Exposure to Life Orientation**

Although learners with interpersonal skills prefer to learn with others around them, it is recommended that students must be exposed to a Life Orientation subject in the class or when occasionally working alone.

### **5.4.2 Respect in classroom learning**

Another result from the study was that teachers' concern about classroom learning is that they expect to be respected, and students must display obedience, order, and discipline in the classroom. Consequently, it is recommended that these values must be instilled in schools so that all interactions with the learners, including parents and guardians must instill these values in the learners so that this is done both in schools and at home.

It is also recommended that learners engage in collaborative learning. Collaborative learning yields content-focused and process-oriented goals, both of which are important for college learning success. Hence, teachers need to develop skills that empower them with many models for designing an environment that prompts learners to help each other learn.

### **5.4.3 Fair treatment**

The study also recommended that fair treatment should be enforced in schools. This means that teachers must fairly treat all students, such that their attitude towards all of them should be the same regardless of who they are. This means that no favouritism should be displayed toward some students, as all students should be treated equally.

#### **5.4.4 Child participation and problem-solving**

It is also recommended that teachers must adopt an approach that actively promotes child participation and problem-solving, whilst simultaneously encouraging adults to become positive role models for the youngsters in their care. Such an approach has the potential to enhance networking amongst LO scholars, with the broader aim of raising the status and value of LO as a valuable subject amongst learners.

#### **5.4.5 Curricula for the preservation of plants and trees**

It is also recommended that LO should include curricula that highlight the preservation of plants and trees as the findings confirmed that learners participate in the destruction of trees in the name of creating environmental expansion or urbanization. The polluted urban environment affects the health and quality of life of the urban population, and measures are required to educate the learners about the disadvantages of destroying trees and plants, this education should be included in LO curricula.

#### **5.4.6 Environmental sustainability**

It is also recommended that Life Orientation education needs to aim to do more than prepare learners for the world of work. Learners must be equipped with skills that will assist them to become active, responsible, and engaged citizens. Such knowledge, skills, attitudes, and values will enable learners to contribute to and benefit from an inclusive and sustainable future.

### **5.5 Limitations**

Limitations identified while conducting the empirical research and applicable to this study as follows:

- ✚ The population sample for this study was limited to one province KwaZulu-Natal, specifically to Sithokozile Secondary School in KwaDabeka.

## **5.6 Recommendation for Future Studies**

Even though LO appears to be promising in theory, it has become apparent that there are many problems in the practical implementation thereof. It is therefore recommended that further research be conducted to determine whether LO is always effective. Additionally, research is required to determine whether teachers are being sufficiently trained and, given the fact that often teachers must teach LO without receiving any, or very little, training, effectiveness becomes questionable. Therefore, more research is required in this regard.

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## Appendix A: LETTER OF INFORMATION



### LETTER OF INFORMATION

Title of the Research Study: An Evaluation of Life Orientation as a Pathway to Environmental Sustainability: The Case of Sithokozile Secondary School in KwaDabeka (KZN)”.

Principal Investigator/s/researcher: Khoza, NP, B. Tech Human Resources

Co-Investigator/s/supervisor/s: Dr I. Nohumba, PhD Business Administration

Brief Introduction and Purpose of the Study:

Good day. I trust you are staying safe during this period of COVID-19.

My name is Mrs. Nonkululeko Phindokuhle Khoza. I am a postgraduate student at the DUT doing research for my Master of Management Sciences degree in Public Administration.

I invite you to participate in the research on the evaluation of Life Orientation as a pathway to Environmental Sustainability. Research is a systematic search or inquiry for generalized new knowledge.

Outline of the Procedures: The present environment is filled with people’s unfair actions, making it difficult to live. Globally, governments make an effort to ensure worthwhile living. However, crises in the environment warrant the need to tackle these crises from the root where youngsters are well-groomed to breed an environment where people can live peacefully. To this end, this study seeks to evaluate the Life Orientation of students as an influence on environmental sustainability. Principally, the study seeks to explore the possibility of learners using their experience to solve environmental crises through independent thinking. It also seeks to ascertain the extent to which learners could use their skills for decision-making and the significant influence of their acquired knowledge on their image and personality.

This is a descriptive study, targeting 110 learners from Sithokozile Secondary School as participants for data collection in a qualitative research study. Questionnaires will be administered to randomly selected participants who are 16 years and above. The researcher will seek permission from the learners, their parents, and the head of the school to participate in the study.

Risks or Discomforts to the Participant: The study will not constitute any harm to the participants. The only responsibility of participants is to provide answers to the questions in the questionnaires.

Explain to the participant the reasons he/she may be withdrawn from the Study: This is a voluntary participation. You are free to withdraw your participation at any time without any adverse consequence to you. You are not compelled to participate.

Benefits: I should let you know that there are no financial or material rewards for your participation in this study.

Remuneration: There will be no remuneration in whatever form, for participating in the study.

Costs of the Study: I will bear the cost of the study. Your participation does not have any cost implications for you.

Confidentiality: Your response to the questions will be with all sense of confidentiality. Your privacy is protected. Neither your name nor your details will be reflected in the report of the study.

Results: The result of the study will be deposited at the repository of the Durban University of Technology. Excerpts of the study will be published in accredited publication outlets.

Research-related Injury: The nature of the study guarantees safety. Nevertheless, precautions will be taken to ensure your safety during the study.

Storage of all electronic and hard copies including tape recordings: The materials used for data collection will be securely saved with access limited to me and my supervisor. The documents will be disposed of after five years, in accordance with the DUT research policy.

Persons to contact in the Event of Any Problems or Queries:(Supervisor and details) Please contact the researcher (0713384275), my supervisor (064 542 4608), or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso at 031 373 2577 or [researchdirector@dut.ac.za](mailto:researchdirector@dut.ac.za).

## Appendix B: CONSENT LETTER



Full Title of the Study: An evaluation of Life Orientation as a pathway to Environmental Sustainability

Names of Researcher/s: Khoza, NP

Statement of Agreement to Participate in the Research Study:

I hereby confirm that I have been informed by the researcher, Khoza, NP, about the nature, conduct, benefits, and risks of this study - Research Ethics Clearance

Number: \_\_\_\_\_,

I have also received, read, and understood the above-written information (Participant Letter of Information) regarding the study.

I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials, and diagnosis will be anonymously processed into a study report.

Given the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.

I may, at any stage, without prejudice, withdraw my consent and participation in the study.

I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

I understand that significant new findings developed during this research which may relate to my participation will be made available to me.

\_\_\_\_\_  
Full Name of Participant    Date    Time    Signature    /    Right

Thumbprint

I, Khoza, NP herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

\_\_\_\_\_  
Full Name of Researcher    Date    Signature

\_\_\_\_\_  
Full Name of Witness (If applicable)    Date    Signature

\_\_\_\_\_  
Full Name of Legal Guardian (If applicable)    Date    Signature

## Appendix C: INCWADI YOLWAZI



### INCWADI YOLWAZI

Isihloko Sesifundo Sokucwaninga : Ngokuhlolwa kwesikhathi sokuphila njengendlela yokuqhubeka nokuqiniseka kwezemvelo: icala lesikolo sasesithokozile secondary esikwababeka (KZN)

Umphenyi oyinhloko / s / umcwaningi : Khoza, NP, B. Tech Human Resources

Umphenyi Obambisene : Dr I. Nohumba, PhD Business Administration

Isingeniso Esifushane Nenjongo Yesifundo:

Usuku oluhle: Ngiyethemba ukuthi uhlala uphephile kulesi sikhathi se-COVID-19 era

Igama lami nginguPhindokuhle Khoza, umfundi waseDurban University of Technology owenza iziqu ze-master's kwiPublic Administration: Ngenza ucwaningo nge : Ukuhlolwa kwesimo sempilo njengendlela eya ekusimameni kwemvelo : Icala laseSithokozile Secondary School KwaDabeka (KZN) likhethwe njengendawo yokufunda lapho ucwaningo luzokwenziwa khona

Ngingathanda ukukumema ukubamba iqhaza ocwaningweni ngokuhlolwa kwesikhathi sokuphila njengendlela yokuqhubeka nokuqiniseka kwezemvelo: icala lesikolo sasesithokozile secondary esikwababeka (kzn). Ucwaningo luhlelekile sesha noma uphenyo ngolwazi olusha olwenziwe jikelele.

Uhlaka Lwezinqubo: Isimo samanje sigcwele izenzo ezingafanele zabantu ezenza kube nzima ukuphila. Emhlabeni jikelele, ohulumeni benza umzamo wokuqinisekisa ukuthi ukuphila kunenzuzo. Kodwa-ke, izingqinamba ezisendaweni ezungezile zivumela isidingo sokubhekana nalezi zinkinga ezisuka empandeni lapho izingane zilungiswa kahle khona ukuze zenze indawo lapho abantu bangahlala ngokuthula. Kuze kube manje, lolu cwano luhlose ukuhlola isimo

sempilo sabafundi njengethonya ekusimeni kwemvelo. Ngokuyinhloko, lolu cwaningo luhlose ukuhlola ukuthi kungenzeka yini ukuthi abafundi basebenzise isipiliyoni sabo ukuxazulula izinkinga zemvelo ngokucabanga okuzimele. Iphinde ihlose ukuthola ukuthi abafundi bangawasebenzisa kangakanani amakhono abo ekwenzeni izinqumo kanye nomthelela omkhulu wolwazi abalutholile emfanekisweni wabo nobuntu babo

. Lesi yisifundo esichazayo, esikhomba abafundi abangama-300 abavela eSithokozile Secondary School njengabahlanganyeli ekuqoqeni idatha ocwaningweni olusezingeni elifanele. Amaphepha emibuzo azobe elawula abahlanganyeli abakhethwe ngokungahleliwe abaneminyaka eyi-16 nangaphezulu. Umcwaningi uzofuna imvume kubafundi, kubazali babo kanye nenhloko yesikole ukuthi babambe iqhaza ocwaningweni

Izingozi noma ukungathokozi kumhlanganyeli: Ucwaningo alunakulimaza ababambiqhaza. Umsebenzi kuphela wabahlanganyeli ukunikeza izimpendulo zemibuzo ekulemibuzo

Chazela obambe iqhaza izizathu zokuthi angahoxa kanjani ocwaningweni: Lokhu ukubamba iqhaza ngokuzithandela. Ukhululekile ukuhoxisa ukubamba kwakho iqhaza nganoma yisiphi isikhathi ngaphandle kwemiphumela emibi kuwe. Awuphoqiwe ukuthi ubambe iqhaza.

Izinzuzo: Kufanele ngikwazise ukuthi ayikho imivuzo yezezimali noma yezinto ezibonakalayo ngokubamba kwakho iqhaza kulolu cwaningo

Umholo: Ngeke kube khona mholo nganoma iyiphi indlela, ngokubamba iqhaza ocwaningweni.

Izindleko Zesifundo: Ngizothwala izindleko zesifundo. Ukubamba iqhaza kwakho akunazindleko kuwe.

Imfihlo: Impendulo yakho emibuzweni izoba nakho konke okuyimfihlo. Ubumfihlo bakho buvikelwe. Igama lakho noma imininingwane yakho uqobo ngeke ivele embikweni wesifundo.

Imiphumela: Umphumela wocwaningo uzobekwa endaweni yokugcina izinto eDurban University of Technology. Izingcaphuno zocwaningo zizoshicilelwa kuzindawo zokushicilela ezigunyaziwe.

Ukulimala okuhlobene nocwaningo: Uhlobo locwaningo lukuqinisekisa ukuphepha. Noma kunjalo, kuzothathwa izinyathelo zokuqinisekisa ukuphepha kwakho esifundweni.

Ukugcinwa kwawo wonke amakhophi kagesi nawamakhompiyutha ahlanganisa okuqoshiwe : Izinto ezisetshenziselwa ukuqoqwa kwedatha zizogcinwa ngokuphepha ngokufinyelela

okunqunyelwe kimi nomphathi wami. Imibhalo izolahlwa ngemuva kweminyaka emihlanu, ngokuya ngenqubomgomo yocwaningo eDUT.

Abantu abangathintana nabo ku-Isehlakalo Sanoma Iziphi Izinkinga noma Imibuzo: (Umpathi neminingwane) Sicela uxhumane ne- researcher (0713384275) umpathi wami(064 542 4608)or Umpathi Wezimiso Zokuziphatha Zocwaningo (031 373 2375). Izikhalazo zingabikwa kuMqondisi: Research and Postgraduate Support Dr L Liganiso on 031 373 2577 or [researchdirector@dut.ac.za](mailto:researchdirector@dut.ac.za)

## **Appendix D: Gate-Keeper's Letter**

July 9, 2021

The Department of Education,

KwaZulu-Natal Province

Pietermaritzburg

### Request for Permission to Conduct Research

Dear Ma/Sir,

My name is Phindokuhle Khoza, a registered postgraduate degree student in the Department of Public Management and Economics, at the Durban University of Technology. The research I wish to conduct for my master's dissertation is "An Evaluation of Life Orientation as Pathway to Environmental Sustainability: The Case of Sithokozile Secondary School in KwaDabeka.

I am hereby seeking your consent to use selected learners of the school as participants.

I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me [insert contact number, fax, and email address]. Thank you for your time and consideration in this matter.

Yours sincerely,

Phindokuhle Khoza

Durban University of Technology

09/07/2021

Dear Parent

REQUEST FOR PERMISSION TO HAND OUT QUESTIONNAIRES TO BE ANSWERED BY LEARNERS REGARDING A RESEARCH STUDY ON AN EVALUATION OF LIFE ORIENTATION AS A PATHWAY TO ENVIRONMENTAL SUSTAINABILITY: THE CASE OF SITHOKOZILE SECONDARY SCHOOL IN KWADABEKA(KZN)

My name is Phindokuhle Khoza, a student at Durban University of Technology studying toward a master's degree in public administration. I am conducting research on an evaluation of Life Orientation as a pathway to environmental sustainability: The case of Sithokozile Secondary School in KwaDabeka (KZN) has been chosen as the study area where the research will be conducted.

The purpose of the study is to evaluate the Life Orientation of students as an influence on environmental sustainability.

With reference to the above, I hereby request permission from the parents or caregivers to disseminate questionnaires to be answered by the learners as the part of data collection method.

For more information, please contact Phindokuhle Khoza, [nonkululekok@dut.ac.za](mailto:nonkululekok@dut.ac.za) , 071 3384275.

Yours Faithfully

Phindokuhle Khoza

09/07/2021

Mzali Othandekayo

ISICELO SOKUVUNYELWA UKUNIKWA IMIBUZO YOKUPHENDULA IZIMPENDULO  
YABAFUNDI MAYELANA NESIFUNDO SOKUCWANINGA NGOKUHLOLWA  
KWESIKHATHI SOKUPHILA NJENGENDLELA YOKUQHUBEKA NOKUQINISEKA  
KWEZEMVELO: ICALA LESIKOLO SASESITHOKOZILE SECONDARY ESIKWABABEKA  
(KZN)

Igama lami nginguPhindokuhle Khoza, umfundi waseDurban University of Technology owenza iziqu ze-master's kwiPublic Administration: Ngenza ucwaningo nge : Ukuhlolwa kwesimo sempilo njengendlela eya ekusimameni kwemvelo : Icala laseSithokozile Secondary School KwaDabeka (KZN) likhethwe njengendawo yokufunda lapho ucwaningo luzokwenziwa khona

Inhloso yocwaningo ukuhlola isimo sempilo sabafundi njengethonya ekusimeni kwemvelo

Mayelana nalokhu okungenhla, ngalokhu ngicela imvume kubazali noma kubanakekeli yokusabalalisa imibuzo ezophendulwa ngabafundi njengengxenye yendlela yokuqoqa imininingwane.

Mayelana nemininingwane ungathintana no Phindokuhle Khoza, [nonkululekok@dut.ac.za](mailto:nonkululekok@dut.ac.za) , 071 3384275

Ozithobayo

Phindokuhle Khoza

## Appendix E: Research Questionnaire

Please tick the relevant box below

### Section A: Demographic Section

Gender

Gender Male	Female
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Age

Less than 15	16 - 17	18 – 19	- 21	22 and above
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Race

Black	Coloured	Indian	White
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Grade Level

8 and below	9	10	11	12
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The under-listed sections demonstrate the level of your adherence to support the statements below by appropriately ticking the best fitting box to portray your intention, that is, either Strongly Disagree; Agree; Not Sure; Disagree and Strongly Agree.

Section B: To establish if personal experience is important for learners in solving the environmental crisis problems.

5: I engage in inter-personal discussions with others so as to not make them feel lonely.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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The mistakes committed by other does not make me berate them.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I am always being truthful in my conversations with friends in order to serve as a good model to others.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

I accord respect to other people to make them feel important and enjoy their living without fear.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I encourage that fair treatment must be given to everyone in my community.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

I offer guidance to others when I see that they are misbehaving unacceptably in terms of social norms.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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Section 3: To determine whether learners apply their skills to make decisions.

I accord respect to other people in order to make them feel important and enjoy their living without fear.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I do away with dishonest characters in order to be an example for other to follow in promoting decency in my environment.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I participate in the destruction of the plants and trees in the name of creating environmental expansion or urbanization.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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My dressing pattern is not to attract attention.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I avoid the excessive consumption of commodities than really required.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I put the needs of other into consideration when it comes to using public resources.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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Section 4: To ascertain if the knowledge gained by the learners adds values to their image.

I participate in programmes that can help in the control of pollution, disease and actions that can result in environmental disorder.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I make donations of material waste that can be recycled to help other people in my community meet their needs.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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I engage in farming activities that can enable the production of more food in my community.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

I engage in crop rotation in order to preserve the soil value and nutrients.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

I use manure in my farming in order to produce more soil nutrients.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

I can manage my anger without affecting other people of my area.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

I accept responsibility on any mistake that I may commit in the course of my duty.

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
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Thank you for your participation

## Ucwaningo lwemibuzo

Sicela ubeke uphawu ebhokisini elifanele ngezansi

### Isigaba A: Isigaba sabantu

#### 1. Ubulili

Ubulili Owesilisa	Ubulili Owesifazane
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#### 2. Iminyaka

15 Ngaphansi	16 - 17	18 – 19	- 21	nangaphezulu
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#### 3.Uhlanga

Abamnyama	Amakhaladi	Amandiya	Mhlophe
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#### 4. Izinga leBanga

8 noma ngaphansi	9	10	11	12
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Izigaba ezingaphansi kohlu zikhombisa izinga lokunamathela kwakho ekusekeleni izitatimende ezingezansi ngokumaka ngokufanele ibhokisi elifanele kakhulu ukuveza inhloso yakho, okusho ukuthi, Angivumelani Ngokuqinile; Vumelana; Angiqiniseki; Angivumelani futhi Ngiyavumelana Ngokuqinile.

Isigaba B: Ukuthola ukuthi ulwazi lomuntu siqu lubalulekile yini kubafundi ekuxazululeni izinkinga zenhlekelele yemvelo

5: Ngiba nezingxoxo phakathi kwabantu nabanye ukuze ngingabenzi bazizwe benesizungu.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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6. Amaphutha enziwa abanye akangenzi ngiwagxeke

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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7. Ngihlala ngikhuluma iqiniso ezingxoxweni zami nabangane ukuze ngibe yisibonelo esihle kwabanye.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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8. Ngiyabahlonipha abanye abantu ukuze ngibenze bazizwe bebalulekile futhi bajabulele ukuphila kwabo ngaphandle kokwesaba.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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9. Ngikhuthaza ukuthi ukuphathwa ngokulingana kufanele kunikezwe wonke umuntu emphakathini wami.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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10. Nginikeza ukuholwa kwabanye lapho ngibona ukuthi baziphatha ngendlela engamukeleki ngokwemigomo yezehlalo.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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Isigaba 3: Ukunquma ukuthi abafundi basebenzisa amakhono abo ukwenza izinqumo.

11. Ngiyahlonipha abanye abantu ukuze ngibenze bazizwe bebalulekile futhi bajabulele ukuphila kwabo ngaphandle kokwesaba.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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12. Ngiqeda abalingiswa abangathembekile ukuze ngibe yisibonelo sokulandelwa abanye ekukhuthazeni isimilo endaweni yami.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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13. Ngibamba iqhaza ekubhujisweni kwezitshalo nezihlahla egameni lokwakha ukunwetshwa kwemvelo noma ukufudukelwa emadolobheni.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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14. Iphethini yami yokugqoka akuyona eyokuheha ukunakwa

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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15. Ngiyakugwema ukusetshenziswa ngokweqile kwezimpahla kunalokho obekudingeka ngempela.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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16. Ngibhekela izidingo zabanye uma kuziwa ekusebenziseni izinsiza zomphakathi.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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Isigaba 4: Ukuqinisekisa ukuthi ulwazi olutholwe ngabafundi lungeza amanani emfanekisweni wabo.

17. Ngibamba iqhaza ezinhlelweni ezingasiza ekulawuleni ukungcola, izifo kanye nezenzo ezingadala ukuphazamiseka kwemvelo.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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18. Nginikela ngemfucumfucu yempahla engabuye isetshenziswe kabusha ukusiza abanye abantu emphakathini wami bahlangabezane nezidingo zabo.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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19. Ngizibandakanya emisebenzini yokulima engavumela ukukhiqizwa kokudla okuningi emphakathini wami.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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20. Ngizibandakanya nokushintshaniswa kwezitshalo ukuze ngilondoloze inani lomhlabathi nezakhamzimba.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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21. Ngisebenzisa umquba ekulimeni kwami ukukhiqiza umsoco omningi womhlabathi.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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22. Ngiyakwazi ukulawula ulaka lwami ngaphandle kokuthinta abanye abantu bendawo yangakithi.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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23. Ngiyakwemukela ukubekwa kwephutha nganoma iliphi iphutha engingalenza lapho ngenza umsebenzi wami.

Ngiyavuma Kakhulu	Vumelana	Angiqiniseki	Ungavumelani	Angivumelani Kakhulu
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Ngiyabonga ngokuhlanganyela nami

## An evaluation of Life Orientation as a pathway to Environmental Sustainability

### ORIGINALITY REPORT

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