

**EXAMINING THE INTEGRATION OF GREEN CONCEPTS AND
PRACTICES INTO THE CURRICULA OF TOURISM AND
HOSPITALITY TRAINING INSTITUTIONS OF ZAMBIA**

By

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**A thesis submitted to the University of Zambia in fulfillment of the requirements for the
award of Doctor of Philosophy in Environmental Education and Management**

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LUSAKA

2023

DECLARATION

I, **Miriam Sampa Moonga**, do hereby solemnly declare that this thesis, “A proposed model for integrating concepts and green practices into the curricula of selected tourism and hospitality training institutions of Zambia” represents my own work, except where otherwise acknowledged, and that it has never been previously submitted for a degree at the University of Zambia or any other university.

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APPROVAL

This thesis of Mirriam Sampa Moonga is hereby approved as fulfilling the requirements for the award of the degree of Doctor of Philosophy in Environmental Education and Management of the University of Zambia.

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DEDICATION

I would like to dedicate this work to my husband, Anolt L. H. Moonga and our children and grandchildren for all the support they gave me during the time of studying. I am forever grateful for the unconditional love and support from the day the Lord put us together to date.

Deepest thanks to my siblings, who kept me grounded, reminding me of what is important in life, and always supporting my endeavours. I salute my parents, the late Mr. Lazarous Mungu Wambuto Bwalya and my mother Mrs. Lwisa Bwalya, for sending me to school at such a tender age. Always telling us to be Heads and not Tails. Last, but not the least, I am grateful to my late uncle Mr. Basil Chileshe (Legal Counsel) for his interest in my studies. Each time I visited him, he asked me how far I had gone with my studies and always encouraged me to work hard.

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LIST OF ACRONYMS AND ABBREVIATIONS

BTHT	Bachelor of Technology in Tourism and hospitality
CHAU	Chalimbana University
CPD	Continuing Profession Development
CT	Curriculum Theory
DOE	Department of Environment
DRGS	Directorate of Research and Graduate Studies
EE	Environmental Education
EPA	Environmental Protection Agency
ESD	Education for Sustainable Development
HTTI T	Hotel and Tourism Training Institute Trust
HOD	Head of Department
ICHRIE	International Council on Hotel, Restaurant & Institutional Education
IPM	Integrated-Pest Management
KZCH	Keep Zambia Clean and Healthy
LCC	Lusaka City Council
LEED	Low Energy Efficiency Device
LIUTEBM	Livingstone International University of Tourism Excellence and Business Management
MMA	Mixed Method Approach
NCES	National Centre for Education Statistics

NHDC	National Hotels Development Corporation
NPE	National Policy on Environment
REC	Research Ethics Committee
SDGs	Sustainable Development Goals
SE	Sustainability Education
SNDP	Seventh National Development Plan
SPSS	Statistical Package for the Social Sciences
STEM	Science, Technology, Engineering and Math education
TEVETA	Technical Education, Vocational and Entrepreneurship Training Authority
TEVT	Technical Education and Vocational Training
UHTTI	Uganda Hotel and Tourism Training Institute
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environmental Protection
UNESCO	United Nations Scientific and Cultural Organisation
UNWTO	United Nations World Tourism Organization
UNZA	University of Zambia
WCED	World Commission on Environment and Development
WIL	Work Integrated Learning
WMU	Waste Management Unit
ZCAS	Zambia Centre for Accountancy Studies

ABSTRACT

The study examined green concepts and practices and how these could be integrated into tourism and hospitality curricula of training institutions in order to promote environmental sustainability in the Zambia tourism and hospitality industry. The objectives of the study were to ascertain the extent to which green concepts and practices were integrated in the curricula of tourism and hospitality training institutions of Zambia; assess understanding of green concepts and practices in tourism and hospitality training institutions; suggest aspects of green concepts and practice to be included in the framework and develop a curriculum framework that could be used in the integration process. The theoretical framework for the study was informed by the Curriculum and Stakeholder theories. A mixed methods approach was used to collect and analyse data by using both qualitative and quantitative technique, concurrent design. A questionnaire with a Likert scale was administered to 200 selected participants in all 10 tourism and hospitality training institutions of Lusaka. The study also used unstructured interviews to collect data from 20 managers and heads of section in these institutions. Document study involved analysing different curricula from Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) institutions, public and private training institutions for content on the same subject. The study found that green concepts and practices were either latently included or were completely missing from the curricula. The present modular structure designed by curricula designers and other private institutions were not specific on green integration hence not effective. Sustainability education remained an afterthought or an add-on in many classes due to lack of knowledge on the part of the instructors and lack of appreciation for sustainability content on the part of managers. The study concluded that integration of green concepts and practices (e.g., water harvest, zero waste, low carbon emissions, renewable energy, green transport and building initiatives) in the tourism and hospitality training institutions was possible despite the findings showing that training institutions were not effectively integrating the content. Key players at national and local levels, private and public academia and the industry needed to create opportunities and synergies to tackle this issue.

Keywords: *Sustainability education, curriculum, green practices, integration, tourism and hospitality industry, sustainability education model, Zambia.*

CHAPTER ONE: INTRODUCTION

1.0 Introduction

The tourism and hospitality sector contributes significant proportions of the world's carbon dioxide (CO₂) emissions, waste generation, and consuming large amounts of water and energy (Gössling, 2011; Leyva & Parra, 2021). The large Carbon Footprint of the tourism and hospitality industry inherently shows that the training curricula and materials are not effectively mainstreamed with sustainability and green concepts and practices to better equip graduating practitioners with sustainability principles and pedagogical competencies. This study, therefore, holds that unsustainable concepts and practices within the tourism and hospitality sector are more a function of poorly greened curricula than the high population's demand for the goods and services offered by the sector. It used a mixed methods approach to investigate the integration of green concepts and practices into the curricula of tourism and hospitality training institutions of Zambia

1.1 Background to the Study

The environment has come under threat due to human unsustainable actions (Hove *et al.*, 2020). Some of the threats include climate change, biodiversity loss, overpopulation, poverty, and competition for limited resources (Department of Environment Water Heritage and the Arts, 2009). This has necessitated advocacy from different stakeholders and well-wishers. Many have turned to environment and sustainability education for a possible solution to this environmental threat. In Zambia, this has necessitated the training of environmental educators in line with the *Zambian National Policy on Environment (NPE)* and other environmental related policies, to meet these ever-growing environmental challenges (NPE, 2007; GRZ, 2019). While this training is desirable for many key sectors of Zambia's economy, one sector that stands out (as I explain later in this chapter) is the *Tourism and Hospitality Industry (THI)*. For the reasons advanced here, I contend that educators, learners and employees in this industry should be among the key drivers of the 'green revolution' (change agents) in the industry, and, therefore, their training curricula should contain topics on greening.

The terms green or pro-environmental behaviour refer to behaviour that minimises harm to the environment (Chileshe & Moonga, 2019). More simply, green behaviour is 'doing

good and avoiding bad' to the environment (Cushman-Roisin, 2012). Most greening activities fall under energy and water conservation, waste management, environmental pollution or environmental sustainability through eco-friendly practices. Contributing to solving these problems is often referred to as "greening". Becoming more sustainable or environmentally responsible are also often used to describe achievements in this field. Integration of green aspects and practices into the tourism and hospitality curricula, which this thesis is proposing, would also be referred to as greening the tourism and hospitality curricula.

Over the years, many terms have come to be used interchangeably to represent sustainability and sustainability education (Wamsler, 2020). These include environment and sustainability education, education for sustainable development, environmental education, as well as green or best practices, eco-friendly, environmentally friendly, environmentally conscious or responsible. The term sustainability was used frequently when the concept just emerged, but currently, dominant discourse uses the term "green" (Du Pisani, 2006). The current study used 'sustainability' alongside 'green' because the former has a broader application than the later. I argue that separating these terms is not a common practice in most cases. Therefore, this study follows the usual approach of using these terms interchangeably. It can be stated that Education for Sustainable Development (ESD) or sustainability education (SE) is the umbrella under which green concepts, aspects and practices fall. Consequently, it is imperative that I begin with a review of the historical background of sustainability and how it has evolved before getting into the intricacies of integrating green practices into college curricula in Zambia. The term 'sustainable development,' used interchangeably with 'sustainability', can be said to have emerged from the 1987 Brundtland Report (also known as 'Our Common Future') as a dominant discourse on sustainability. Scholars such as (Hopwood et al., 2005; Baker, 2006 and Babbie, 2010) have discussed the concept broadly.

According to Hardy *et al.* (2002), the concept arose from the many scientific, economic, socio-cultural and environmental problems of the 1970's and 1980's in an effort to address the need for a different and more responsive approach to development. The term was originally coined as 'eco-development' at the 1972 United Nations Environmental Protection (UNEP) Stockholm Conference (Strong, 1973). It was later defined as "development that meets the needs of the present without compromising the ability of

future generations to meet their own needs” by the World Commission on Environment and Development in 1987 (WCED, 1987). Sustainable development became more prominent afterwards. At national level, we have the National Conservation Strategies (NCSs) which were developed as a response to the World Commission on Environment and Development in 1987 (GRZ/IUCN, 1985). Other events such as the United Nations Conference on Environment and Development (UNCED), also known as the 'Earth Summit', followed. One of the major results of the UNCED Conference was Agenda 21, a daring programme of action calling for new strategies to invest in the future to achieve overall sustainable development in the 21st century (UNCED, 1992). This theme runs through most of the definitions that have been given afterwards.

The 2030 Agenda, which is a continuation of the UN Millennium Development Goals (2000-2015), commits the global community to achieving sustainable development in its three dimensions or pillars of sustainability, namely economic, social and environmental (or ecological) in a balanced and integrated manner. Whereas the economic dimension includes the flow of funds, and the social dimension includes the social impacts on a region and its people, the environmental dimension includes all aspects pertaining to the continued viability of the natural environment and resources (Slaper & Hall, 2011; Bright & Cortes, 2019). The U.S. Environmental Protection Agency (EPA) (2008, p.23) states that “sustainability encompasses ideas, aspirations and values that continue to inspire public and private organisations to become better stewards of *the environment* and that promote *positive economic growth* and *social objectives*.” In essence, the EPA is advocating for development, which takes stock of the three pillars of sustainability. It can, thus, be argued that there is a consensus among scholars and scientists that sustainable development is largely based upon being pro-development where economic growth, social justice, and environmental conservation can exist in harmony forever (Dryzek, 2005).

Also clear is that, at the centre of sustainability is the recognition of the need for norm activity, intra- and inter-generational equity, justice, and gender equality, where not only the ability of future generations to prosper is considered, but that the needs of those currently marginalised are also met (Posch & Steiner, 2006; Waas, Hugé, Verbruggen, & Wright, 2011). The Rio Declaration at the UN Earth Summit endorsed these principles in 1992. In this study, therefore, environmental sustainability will be used to refer to a

pattern of resource use that aims to meet human needs while preserving the environment for present and future generations by tying together natural systems with social challenges facing humanity (World Commission on Environment and Development, 1987). Scholars have acknowledged that populations can reach full potential without adversely affecting the carrying capacity of the environments upon which they depend (Bed-Eli, 2004).

Other scholars have proposed a definition of sustainability that focuses on the internal cognitive and affective processes that are necessary for sustainability thinking and actions. For example, Lander (2015) proposed that sustainability is a way of thinking and decision-making that is based on ethical principles and which supports the welfare of social and natural environments now and in the future. This definition is context-free and has been broadly applied, given that both social and natural environments vary greatly around the planet. Lander further argued that defining sustainability in terms of cognitive and affective processes provided a foundation for identifying specific learning goals for education for sustainability, such as increased complexity in thinking skills and decision making, improved ethical reasoning, better understanding of social and natural environments through systems and future thinking, and integration of ideas across fields, given that internal processes are foundational to action and green concepts and practices. This definition fits well in this study because it is bringing all the aspects of environmental education at play into a context of application into a curriculum.

Furthermore, sustainability is not restricted to one industry, organisation, or activity; it affects each person, business, and the entire environment. Like Rankin (2014), I contend that it is not possible for subsystems to be sustainable within an unsustainable global system - sustainability is a property of the Earth system as a whole. Therefore, individual organisations can contribute to the social and environmental sustainability.

1.1.1 Sustainability Education

As I have indicated in the preceding section, the goal of ESD or SE is to reconcile critical economic, social, and ecological problems facing the world in order to achieve sustainability (Dale & Newman, 2005). It is important in this discourse to note that ESD seeks to promote and improve the quality of a lifelong learning that is directed to the acquisition of knowledge, skills and values necessary for citizens being able to improve their quality of life. UNESCO (2017a) states that SE is about lifelong learning and is an

integral part of quality education, from kindergarten to tertiary education. UNESCO further states that non-formal and formal education can and should accept the responsibility to intensively deal with the matters of sustainable development and to nurture sustainability competencies. SE aims at changing behaviours in learners, which motivate sustainable actions. To achieve this, UNESCO explains that it is important to nurture sustainability competencies among learners and use particular teaching approaches, which lead to transformative actions in the context of systems thinking, a future orientation, and collaborative decision-making.

ESD teaches that a sustainable society is one in which people do not damage the environment or overuse resources. Therefore, integrating green concepts and practices into curricula will help to ensure that the tourism and hospitality sector in the country operates in a sustainable manner. Dasgupta (2001) posits that sustainability supports the wellbeing of individuals and communities; it promotes a better economy where there is little waste and pollution, fewer emissions, more jobs, and a better distribution of wealth. Integrating sustainability education within the tourism and hospitality curricula will prepare trainees for the current demands of the hospitality profession. Since there is urgent need or demand for the industry to go green, it is imperative that tourism and hospitality training providers embrace sustainability and recognise that teaching it is of utmost importance to the success of their students and the industry.

The pertinent question is: can schools (including tertiary institutions) produce responsible environmental citizens? Pinar *et al.*, (1995, p. 841) call for education to accept full responsibility in addressing global survival issues. Similarly, UNESCO (2012) asserts that only education and learning at all levels and in all social contexts can bring about the critical change.

1.1.2 Linkages among Tourism, Hospitality and Sustainability Education

It is important at this point to explain the scope of tourism and hospitality in order to understand the interrelatedness between the industry and SD. According to UNWTO (2011), the tourism and hospitality industry is among the largest industries in the world. UNWTO defines tourism as activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure (or recreation), business, and other purposes not related to the exercise of an activity

remunerated from within the places visited. Hospitality, on the other hand, is a component of tourism, which caters for tourists in any given destination with a focus on welfare of tourists. Therefore, hospitality is an essential and valuable asset of the travel and tourism industry today. Service delivery and guest impression are the common dynamics that hold the industry together (Ezenagu & Kukoyi, 2013).

The linkages that exist between sustainability education and the THI is that different tourism and hospitality aspects are connected to green concepts and practices because of the benefits that accrue to the THS by applying sustainable measures. According to Butler (2008) green is not only beneficial for the tourism and hospitality industry but it also maximises the benefits from an environmental focus in the long-term. Barber, Deale, & Goodman (2011) assert that having sustainability as the end goal of tourism and hospitality will result in natural integration of sustainability into the curricula because sustainability is the main context of interest. Teaching students about sustainability not only prepares them to become effective leaders in hospitality, but also provides skills that resonate with their values (Deale, Nichols & Jacques, 2009). At the same time, it is believed that integrating sustainability in curricula will provide students with a better education and better preparation for the tourism and hospitality profession.

The thesis argues that leaders in the tourism and hospitality industry should see sustainability as a necessity and a guiding principle behind their decisions and actions. According to Dodds (2007), leaders now recognise the need to engage with sustainability because of the numerous benefits it brings which include increased profit, cost savings, increased guest satisfaction and improved staff retention. Other benefits are employee loyalty, regulatory compliance, competitive advantage, risk management and social responsibility (Dodds, 2007; Graci & Dodds, 2008). These advantages provide the rationale for integrating environment and sustainability education or greening in the curricula of the tourism and hospitality sector.

Another major connection is that, although sustainability is a new concept in the tourism and hospitality sector, it is the best way of doing business today. Additionally, sustainability practices and measures can be considered as a new type of innovation in the tourism and hospitality industry (Dibra, 2015). Moreover, increasingly, sustainability is now seen as a buzzword in ESD, rather than an action plan (Henderson, 2007); it is a necessity of time and is fashionable in this particular context. Dodds (2007, p. 254) stated

that the words sustainability, green and environmental have been attached to several tourism and hospitality products and destinations, particularly as part of marketing strategies and certification programmes. The problem, however, has been that how 'sustainable' or 'green' or 'environmentally committed' tourism and hospitality products or destinations are has not always been clear. These issues need to be investigated through research.

Apart from the positives enumerated above, the tourism and hospitality industry also possess many negatives in relation to the environment. Although it is believed that hotels do not consume extensive amounts of environmental resources individually or collectively, they cause substantial impacts on the environment (Webster, 2000; Webster & Hartwell, 2008). For example, hotels have issues of food waste management, which, according to Salama and Abdelsalam (2021), is considered a serious environmental and socioeconomic issue in the 21st century. The improper disposal of food waste causes greenhouse gases emissions, consequently badly affecting the environment. At the same time, unplanned and uncontrolled hotel development can seriously generate environmental degradation. Lemy *et al.*, (2021) explains that negative issues concerning the environment and social impact often accompany the benefits of tourism. Bohdanowicz and Martinac (2003) stated that 75% of the environmental pollution is caused by the hotel industry that consumes energy, water and materials excessively while doing business.

The researcher therefore, argues that the negative consequences indicate that there is an urgent need for environmentally sound practices and products in the industry to reduce their environmental impacts. I further contend that one drastic measure that can be taken would be to integrate green concepts and practices (or sustainability education) into the curricula of tourism and hospitality training institutions. The premise for the argument is that sustainability programmes have a responsibility to produce graduates that are capable of bringing benefits to the tourism and hospitality sector while also serving the environment. Tourism and hospitality training plays an important role in equipping youths with the skills required for employment, decent work, entrepreneurship and lifelong learning. In the present development context, tourism and hospitality training institutions can equip youths with the skills required to access the world of work, including skills for self-employment. Therefore, integrating sustainability into the

tourism and hospitality curricula will provide students with a better education and better preparation for the tourism and hospitality profession. Educating students about sustainability will not only be popular among students, but there will also be a ripple effect from their sustainable practices and behaviour into the workplace. Therefore, because of the benefits SE brings to the hospitality sector, the main argument (thesis) of this study is that tourism and hospitality training institutions should integrate environment and sustainability education or greening in their curricula because it is relevant to the Zambian hospitality sector in particular and society as a whole. Clearly, the field of tourism and hospitality cannot be excluded from the concept of sustainable development given the close relationship between the natural environment and the industry (Holden, 2016).

1.1.3 The Importance of Teaching Sustainability in the Tourism and Hospitality Programmes

The necessity of teaching sustainability education in tourism and hospitality programmes has been elaborated by Bader (2005) and Deale *et al.* (2009). Bader (2005: 74) shows that there are three main reasons for teaching sustainability education, as follows:

- (a) The changing perceptions of responsibilities among managers, raising operational costs, and growing consumer demand for sustainable products, as well as consumer demand, environmental regulation, managerial concern with ethics, consumer satisfaction, and maintenance issues related to physical buildings.
- (b) In addition to attracting the ‘green consumer,’ green hotel initiatives also have the potential to save hotels a lot of money.
- (c) Sustainability programmes have a responsibility to produce graduates capable of bringing benefits to the triple bottom line.

Baker’s (2006) assertions are supported by Baker, Davis and Weaver (2014) who contended that there is a belief that green initiatives are of critical importance to the success of hotels in the current market environment, and therefore need to be taught.

Scholars (Barber *et al.*, 2011; Deale & Barber, 2010) have observed that, although articles that discuss sustainability in tourism and hospitality education exist, they have provided little pedagogical debate on how to best teach sustainability. Deale *et al.* (2009) posit that,

despite the tourism and hospitality industry being among the largest industries in the 21st century with both positive and negative economic, social and environmental impacts, the discussion pertaining to teaching sustainability within the tourism and hospitality curricula is ‘scanty’ and still in its infancy. Some of these scholars have also argued that the consensus among previous literature is that there is a need for teaching sustainability within the tourism and hospitality curricula in order to prepare students for the demands of the tourism and hospitality profession (Barber *et al.*, 2011; Deale *et al.*, 2009). I, therefore, assert here that integrating sustainability in the tourism and hospitality curricula is a worthwhile pursuit, which this study undertook to understand.

1.1.4 Basis of Modern Environmentalism in Zambia and Origins of Greening

The origins of greening in Zambia cannot be complete without considering the following:

The World Conservation Strategy (WCS) proposed the National Conservation Strategies (NCSs 1987) for Zambia in 1980 as a means for countries to take a comprehensive, cross-sectoral approach to conservation and resource management. The goal of the strategy is to satisfy the basic needs of all the people of Zambia, both present and future generations, through the wise management of natural resources. The idea of the strategy is that conservation and development are two sides of the same coin; conservation can aid development because it nurtures the productive capacities of natural resources and sustains the environment in which people live and work; development can help conservation by ensuring that people's needs are adequately supplied, so that they are not obliged to overexploit and damage. The Strategy is designed to aid Zambia as a nation to achieve sustainable development (GRZ/IUCN, 1985).

The Environmental Protection and Pollution Act No 12 of 1990, is an Act provided for the following: Protection of the environment and the control of pollution; to establish the Environmental Council and to prescribe the functions and powers of the Council; as well as to provide for matters connected with or incidental to the foregoing. It was provided in order to manage the system of integrated pollution prevention and control (IPPC) for raw material usage, waste avoidance (or minimisation), energy efficiency and the disposal of wastes to land, water and air (Ministry of Legal Affairs/ GRZ, 1990).

The National Environmental Action Plan (NEAP- 1994) of Zambia is a comprehensive programme aimed at promoting environmental strategies and policies and the

achievement of sustainable environmental policies. The NEAP provides an overview of Zambia's environmental problems, existing legislation and institutions and strategy options for improving environmental quality (MENR, 1994).

Having looked at the basis or origins of green concepts and practices in Zambia, it can be said that greening in Zambia had its genesis in the sincere concerns about the state of the environment in the country over a few decades. The country had been grappling with numerous environmental problems among them air, water, and land pollution; land degradation; over-exploitation of natural resources; and solid waste management (WWF Global, 2015). Available literature shows that waste management was one of the major environmental problems faced by Zambia. According to ECZ (2004: 1), the country was faced with a critical waste management problem, which was threatening the health of the people, socio-economic development as well as the environment. In relation to solid waste, littering, uncollected garbage and indiscriminate dumping of waste were identified as the major concerns. For instance, Zambia generated close to three million tons of solid wastes per year, with Lusaka alone contributing close to 1 million tones (Banda, 2013). This waste was not easy to manage, given the incessant lack of financial capacity across municipalities in the country. Such dire situations needed addressing and the government of Zambia saw the need to take progressive steps towards solving the problem (GRZ, 2017).

It is also noted that the first major step to the introduction of green practices in the country was when the Mwanawasa government made pronouncements concerning the need to keep surroundings clean and healthy. At that time, the waste management situation in the country was desperate (Banda, 2013), and, in order to change the status quo, President Mwanawasa declared the “Make Zambia Clean and Healthy (KZCH)” campaign which he launched on 22nd June, 2007. The government backed the campaign with Statutory Instruments (SIs) No. 44 and No. 100 both of 2007, which compelled residents and institutions to take responsibility of the waste, they produced (GRZ, 2017). To kick-start the programme, government also provided funding to a tune of K200 million at the time. It also became mandatory by various pieces of legislation for municipalities, especially in urban areas, to manage solid waste. Government also urged councils to apply punitive measures upon individuals or property owners who flouted the law (Qfm Zambia Newspaper, 2018).

Unfortunately, the KZCH programme, which was seen as the panacea to the problem of dirty and unhealthy surroundings, did not achieve what it was intended to (Chileshe, 2018). As early as 2008, Harvey and Mukosha (2008) noted that the implementation of the programme was both fragile and flimsy as there was little or no indication on the ground to show its effectiveness and impact, especially after the demise of President Mwanawasa in that year. Therefore, since 2008, the country had remained largely unclean, despite a few notable achievements scored by the government. Banda (2013, p. 3) contends that “efforts to rejuvenate [the programme] have been made [the programme] was relaunched on 4th October, 2015 and again on 28th April, 2018 by President Lungu) but have remained abstract ideas as people did not seem to get involved while other government officials were also making statements without concrete action and systematic approach.”

Banda (2013) explains that in the Third Republic, during the reign of former President Chiluba, most of the practices associated with the Kaunda regime were abandoned, including the good hygiene and waste management practices. There was laxity both in the provision of waste management services and in the enforcement of regulations related to waste management. In fact, the republican president even created a vendors’ desk at State House and appointed a deputy minister to support the activities of street vendors. As a result of this, people traded on the streets with impunity without any facilities such as waste bins and toilets. Over and above, the people of Zambia developed a negative attitude towards cleanliness and waste disposal (Chileshe, 2018).

When the programme was relaunched the second time, a component of ‘green’ was added to now read; “Keep Zambia Clean, Green and Healthy” campaign (Chileshe & Moonga, 2019). Since 2007, Zambia had been trying to implement a sustainability clean-up programme called “Keep Zambia Clean, Green and Healthy Campaign.” The aim of the programme was to improve health standards throughout the country by ensuring that people maintained clean, green and healthy surroundings. It was also anticipated that the move would reduce the cost of fighting perennial water borne diseases as well as resources spent on cleaning cities and towns each time there was an outbreak of such diseases (Phiri, 2018). The success of this programme depended on several factors including, *inter alia*, human attitudinal factors, institutional factors, and political will, all of which were difficult to meet.

As noted earlier on, green behaviour is a shared responsibility of all citizens in the country, whether as individual private citizens, public authorities or industry. It should, therefore, not be left to government alone. Individuals and corporate institutions should get involved, for example, by minimising energy and water usage, and reducing waste generation and pollution. This takes us to the next point, that greening should not be misconstrued to only involve waste management; it should be expanded to other spheres of the environment, such as management of water and energy. Scholars such as Hossan (2014) have argued that the concept of “green” has become a “catch word” on *all* walks of human life and endeavours. Thus, if the concept is to meaningfully take root in Zambia, it should be applied, not only to waste management but also to business, banking, construction, education, office maintenance, agriculture, transport, commerce and trade. This means that, in the true sense, it should be applied to preserving nature in its original state as much as possible but also to solving social and economic palavers in the country.

Over the years, Zambia has developed other sustainability policies, legislature and educational programmes, both which have provided impetus and focus to this study. On the educational front, for example, the University of Zambia introduced the Bachelor of Education (Environmental Education) degree programme on the basis that the Zambia Nation Environmental Action Plan (NEAP) of 1994 had recommended, “to incorporate environmental education into existing school curriculum and technical and university teacher training programmes”. Furthermore, as a response to the Seventh National Development Plan (SNDP), the University developed a Strategic Plan (2018-2022) whose value and management philosophy of eco-friendliness included the following actions:

1. Endeavour to uphold common values to strive for better understanding of environmental issues, support environmental causes and promote the protection of living organisms including humans, from harmful actions that impact on the air, land and water.
2. Advocate for sustainable biodiversity management, ecologically friendly protection and provision of goods and services for a healthy living on earth, especially in our immediate environment.

The Zambia National Policy on Environment (GRZ, 2007, p.23) also stated that, “environmental education shall be taught on a multi-disciplinary basis and integrated into ongoing curricula at all levels and on continuous basis”. To strengthen this promulgation,

the Environmental Management Act, 2011 para. 6, section 88, sub-section 1, states that “the Director General (of Zambia Environmental Management Agency) shall, in consultation with the relevant appropriate authorities, take measures for the integration of environment matters in schools, colleges and institutions of higher learning.”

Clearly, this study emanates from the background provided above that, at both national and institutional levels, environmental issues and sustainability education are supported. The study therefore, argues that tourism and hospitality training institutions in Zambia are stakeholders in the matter at hand because, to start with, they are institutions of higher learning, and, secondly, the industry for which they train staff contributes immensely to waste generation and therefore environmental degradation. One way by which the hospitality sector can participate in greening is by developing a training framework on green initiatives, which can be used to training people for the tourism and hospitality industry in the country.

Naik (2014) states that there is need to address environmental problems that have become an important point of interest for hoteliers and their managers throughout the world. This means that institutions training in tourism and hospitality should include in their curricula topics on sustainability/greening. However, a glance at different curricula from various hospitality training institutions in Zambia (Appendices I, II and III) shows that, although these institutions offer a comprehensive approach to those individuals who intend to make a career in this field, there is an obvious absence of a module in education for environment and sustainability education or green initiatives and practices.

Due to all gains brought by the industry, many countries in the world aspire to grow their tourism and hospitality industries. In Zambia, the ministry hosting the tourism and hospitality industry has been elevated to the position of being one of the major ministries in the country. In 2005, the industry contributed nearly 16% of the total exports, 6.5% of GDP, 7% of government revenue, 10% of formal sector employment, and almost 6% of wages (DFID/World Bank, July 2011).

In spite of all the gains accruing from the industry, the growth of the tourism and hospitality industry through the years has created an increased amount of stress on the environment and biodiversity loss. Increased tourism has meant an increase in hospitality facilities to serve the demands of tourists. The most likely source of stress may be the

presence of buildings and tourist activities, noisy hospitality venues, transport, excessive water and energy consumption, and the generation of waste by hospitality facilities environmental degradation (Lemy *et al.*, 2021) In places of tourist destination that do not have the necessary infrastructure and systems to manage these impacts, severe degradation of the environment can occur. In 2018, the Zambia Tourism Agency recorded 150 registered hotels and lodges in Lusaka as well as 120 in Livingstone (ZTA, 2018). Four years down the line, these numbers are likely to have increased. These are huge numbers for such facilities where these environmental impacts take place, hence the need for the proposed integration of green concepts and practices into the tourism and hospitality training programmes in the country.

I agree with Omar (2014) that a training programme in an organisation is a process by which people are taught with relevant skills and given the necessary knowledge or attitude to enable them to carry out their responsibilities to the required standard in the present job and to undertake greater and more demanding roles for effective job performance. I also argue that it is essential for the hospitality industry to have an effective training programme to meet the customers' green demands. There is an assertion that, at the corporate level, several of the major international hotel chains increasingly stress their commitment to sustainability and to integrating it into their core business strategy while pursuing continuing growth, which makes a range of demands on environmental resources (Jones, Hillier & Comfort, 2014). Therefore, it would not be far-fetched to assert that tourism and hospitality institutions of learning should teach knowledge, skills and values which are needed by hospitality sector. Thus, the main argument (thesis) of this study is that tourism and hospitality training institutions in Zambia should integrate or incorporate green concepts and practices (variant = sustainability education) in their curricula because it is very relevant to the Zambian society in general and tourism and hospitality sector in particular. The study suggests revisiting and remodeling the current hospitality-training curriculum and positions environmental education as a powerful tool for promoting environmental sustainability in the hospitality industry.

1.2 Statement of the Problem

The Zambia National Policy on Environment (GRZ, 2007, p.23) states that environmental education should be taught on a multi-disciplinary basis and integrated into ongoing curricula at all levels of the Zambian education system, on a continuous basis. Further,

the Environmental Management Act of 2011 stipulates that environmental matters should be integrated in schools, colleges and institutions of higher learning. The sustainability of the tourism and hospitality industry is through the employment of an available and well-trained human resource. However, prior to this study, it was not certain the extent to which green concepts and practices had been integrated in the curricula of tourism and hospitality training institutions of Zambia and how much tourism and hospitality training institutions understood green concepts and practices. Yet, these institutions train graduates who are going to work in an industry which produces huge amounts of waste and engage in unsustainable practices, such as high energy and water consumption. Sustainability programmes have a responsibility to produce graduates that are capable of bringing benefits to the tourism and hospitality sector while also serving the environment. Therefore, integrating sustainability into the tourism and hospitality curricula will provide students with a better education and better preparation for the tourism and hospitality profession. Once the tourism and hospitality training institution's curricula are remodeled to include green concepts and practices, the problem would have been addressed. On the other hand, if integration is not done, tourism and hospitality training institutions may continue to produce graduates who may not function fully in the tourism and hospitality industry. It is, therefore, imperative that green concepts and practices are integrated in the training curricula to adequately and effectively prepare the graduates for service in the tourism and hospitality sector. The question, therefore, is: To what the extent has tourism and hospitality training institutions in Zambia integrated green concepts and practices in their curricula and how much do they understand green concepts and practices?

1.3 Purpose of the Study

The purpose of this study was to examine the extent to which green concepts and practices are integrated in the curricula of tourism and hospitality training institutions in order to promote environmental sustainability in the industry.

1.4 Research Objectives

The research objectives for the study were to:

- (a) ascertain the existence of green concepts and practices in the curricula of tourism and hospitality training institutions of Zambia.

- (b) assess the understanding of green concepts and practices by lecturers and students in the tourism and hospitality training institutions of Zambia.
- (c) suggest aspects of green concepts and practices that could be integrated at various levels of the curricula of training institutions stated in item (a) above.
- (d) Develop a curriculum framework that could be used in integrating green concepts and practices into the curricula of tourism and hospitality training institutions of Zambia.

1.5 Research Questions

- (a) To what extent are green concepts and practices integrated into the curricula of tourism and hospitality training institutions of Zambia?
- (b) How did lecturers and students understand green concepts and practices integrated into the curricula of tourism and hospitality training institutions of Zambia?
- (c) What aspects of green concepts and practices could be integrated at various levels into the curricula of tourism and hospitality training institutions of Zambia?
- (d) What curriculum framework could be used to integrate green concepts and practices into the curricula of tourism and hospitality training institutions of Zambia?

1.6 Significance of the Study

It was important to undertake this study because it contextually speaks to the Environmental Education (EE) practice on Education for Sustainable Consumption (ESC) as outlined in the UNESCO (2009) Thrust 2 and 4 Framework on ESC, which advocates for reorientation of curricula to address sustainability issues within high consumption sectors such as tourism and hospitality industry. On the other hand, the Zambian National Policy on Environment of 2007 provides for mainstreaming sustainability education across all actors and practitioners.

The study will also contribute to the body of knowledge. To the best of my knowledge, little or no scholarly publications exist on designing appropriate sustainability education curricula on greening the industry and the curriculum of tourism and hospitality in particular. Furthermore, the outcome might help the Technical Educational, Vocational and Entrepreneurship Training Authority (TEVETA) (who are the curriculum designers),

private and public curriculum designers, as well as trainers to understand that integrating of green/eco-friendly practices is not only widely accepted but has become an important norm in the tourism and hospitality industry. The outcomes of the study could also be useful to policy makers as it may help them formulate policies that could guide the way forward by putting in place appropriate legislature that may steer the tourism and hospitality industry towards a green and sustainable industry in Zambia. The study provides insights on how this can be done.

1.7 Assumptions of the Study

The assumptions of this study were that there was not much content about green aspects and practices in the curricula of tourism and hospitality training institutions in Zambia, hence, poor site management, environmental compliance and practices observed or seen in the tourism and hospitality facilities around the country. Greening of the tourism and hospitality industry was happening in a few other African countries such as Kenya and South Africa just to name a few countries, but not in Zambia.

1.8 Limitations of the Study

The first limitation was low-levels of awareness and understanding of green concepts and practices and sustainability education concept among some respondents. Most of them were meeting the green concept for the first time and could not associate it to something they knew before. This resulted in receiving incomplete information where participants could not provide full responses.

The second limitation was about the limited number of tourism and hospitality training institutions in Lusaka and the nation at large. At the onset of the study, I got a list of registered training institutions in the country with the hope to conduct the study in other towns and provinces rather than Lusaka city and Lusaka Province respectively. However, when I contacted institutions outside Lusaka, they were not operating any more. This affected the study in that, instead of a nationwide survey, this study became limited to Lusaka-based training institutions only and to the census nature of the study that I undertook.

The other limitation was that learner participants sometimes withheld information on the suspicion that the research findings could reach their trainers. This was despite the

assurance given to them that the study was purely for academic purposes and that the results were not going to be exposed to management or to any other authority. Some managers in these institutions, especially private and faith-based institutions, were not free to give comprehensive answers on account of safeguarding the reputation of their names and business interests.

1.9 Delimitation

Geographically, the study was limited to the city of Lusaka. This location was arrived at because, when I tried to establish the existence of tourism and hospitality training institutions in other districts and provinces, it was discovered that none of them existed apart from those in Lusaka. In terms of population, the study was confined to managers, heads of departments, lecturers and learners in the tourism and hospitality training institutions. This population was chosen because they were the ones who were directly involved in training as management, instructors as well as learners.

1.10 Operational Definition of Terms

In the context of this study, the following concepts were given operational definitions:

Curriculum: a document with contents of a subject, concepts and tasks to be acquired, planned and guided learning experiences and intended outcomes of learning.

Green concept: preserving nature in its original state as much as possible as well as avoiding polluting, it.

Green tourism or eco-tourism: sustainable tourism where both parties – the tourists and the tourist services are environment-friendly or behave in an environmental-friendly manner.

Greening: pursuing knowledge and practices, which are conducive to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources.

Integration: the process of combining or articulating learning content and subjects with a view to promoting holistic and comprehensive learning.

Sustainability education: a type of education which prepares individuals to plan for, cope with, and find solutions for issues that threaten the sustainability of planet Earth.

Sustainability: a state or condition that allows for the fulfillment of economic and social needs without compromising the natural resources and environmental quality that are the foundation of human health, safety, security, and economic well-being.

Tourism: a composite of activities, services, and industries that deliver a travel experience. It involves transportations, accommodations, eating and drinking establishments, shops, entertainments, activity facilities, and other hospitality services for individuals or groups that are traveling away from home.

1.11 Chapter Summary

The chapter introduced the study, covering the background, statement of the problem, objectives of the study, and the significance of the study. It has been noted that there is need for tourism and hospitality institutions of learning in Zambia to include topics on sustainability or greening in their curricula. This is in the backdrop that the tourism and hospitality industry contributes substantially to environmental degradation in the country. The chapter has noted that it was not known to what extent training institutions in Zambia had integrated issues of sustainability in their curricula and, therefore, it was imperative to ascertain the existence of these issues in the curricula of selected tourism and hospitality training institutions in the country and, thereafter, develop a curriculum framework for integrating concepts and green practices into the curricula. In the chapter that follows, theoretical and conceptual frameworks of the study are presented.

CHAPTER TWO: THEORETICAL FRAMEWORK

2.0 Introduction

The chapter describes both the theoretical and conceptual frameworks of the study. The theoretical framework provides theories that explain the context of the study by providing the tools of analysis required to develop an intervention framework designed to promote environmental sustainability. The conceptual framework, on the other hand, shows how environmentally sustainable practices can be promoted through environmental education in the tourism and hospitality industry. Given the impact of the tourism and hospitality industry on the environment, increasing the sustainability of this industry depends on the quality of human resources, thus necessitating the development of viable tourism and hospitality curricula. Therefore, in this chapter, I have focused my attention on describing curriculum theory, which helps to explain how an educational institution decides on what is worth to learn and teach. I have also made use of the stakeholder theory which suggests that the needs of shareholders cannot be met before the needs of stakeholders are met, implying that the tourism and hospitality training institutions should of utmost importance meet the requirements of their clientele, the tourism and hospitality industry, through training of competent personnel.

2.1 Curriculum Theory

The first theory to guide this study is Curriculum Theory (CT). The theory, as espoused by Young (2014), is an academic discipline devoted to examining and shaping educational curricula. The term denotes how an educational institution decides on what is worth to learn and teach, and how learning is measured. It is fundamentally concerned with values Kliebard (1989), the historical analysis of curriculum, ways of viewing current educational curriculum and policy decisions. It also theorises about the curricula of the future (Wallin, 2011).

2.1.1 Role of Curriculum Theory

According to Young (2014), CT has two roles: a critical role and a normative role. The critical role is to analyse the assumptions, strengths and weaknesses of existing curricula, and the ways that the concept curriculum is used. Young explains that one cannot have

critique without a tradition. In this context, CT can be approached from the educational, philosophical, psychological and sociological perspectives. Some curriculum theorists, particularly those in the American tradition, adopt an eclectic use of theories from a wide range of sources or traditions. In this study, the concern is the educational tradition or perspective of curriculum theory.

The normative role has two meanings. One refers to the rules (or norms) guiding curricular design and practice and the other to the fact that education always implies some moral values about the good person and the “good society” – in other words, what are we educating for? In this study, the concern is what a “better curriculum” should involve or what we are teaching for.

Education is about doing things to and with others. Education is primarily concerned with enabling people to acquire knowledge that takes them beyond their experience, and they would be unlikely to acquire it if they did not go to school or college. Human learning is an epistemic activity, that is, it is involved in producing knowledge. People learn to find out something or how to do something. The role of CT then, must be to analyse the knowledge people are learning, be it in schools, colleges or universities, and to come up with the best alternatives to existing forms that we can. In the context of this study, the pertinent question is: Without greening knowledge in the current curricula of tourism and hospitality training institutions, is the existing knowledge adequate or complete to enable the graduates to work effectively in their jobs including practicing SD? What is missing and why? What best alternatives can these institutions come up with? Is the curriculum designed in accordance with Michael Young’s curriculum theory? Does it meet societal needs in as far as greening is concerned? Curricula largely define the kind of education people get. When curricula are understood as forms of specialised knowledge, better curricula can be developed and learning opportunities improved. Young (2014) asserts that if one wants to acquire specialist knowledge and are serious, they will go to an institution with a curriculum that includes what they want to learn and teachers who know how to teach. Are these institutions specialised in tourism and hospitality training? Are the teachers trained to teach green aspects?

Another crucial question then is: “what knowledge should make up the curriculum?” “If this question cannot be answered, or if there is no “better knowledge,” this raises questions about the authority of curriculum theorists and the basis on which they expect

parents to trust teachers when they hand their children over to them. Curriculum designers at any level are involved in the process that Bernstein (2000) referred to as re-contextualisation, which refers to how elements of disciplinary knowledge are incorporated into curricula for learners of different ages and prior knowledge. The three processes involved in the process of re-contextualisation are: how knowledge is selected, how it is sequenced and how it is paced. In this study, the concern is how (what) knowledge is selected and included in the curricula.

2.1.2 Curriculum Models

Curriculum can further be understood by examining how the elements that make up a curriculum are defined and organised. The process of defining and organising curriculum elements into a logical pattern is known as *curriculum design*. Curriculum writers have tried to place some order or rationality on the process of designing a curriculum by advocating two main models, prescriptive models and descriptive models, which purport to describe what curriculum designers actually do (Prideaux, 2003). In the following section, prescriptive and descriptive models are presented.

2.1.3 Prescriptive Model

Prescriptive models indicate what curriculum designers should do. Ellis (2004) likens prescriptive curricula to medical prescriptions that patients are given by surgeons. According to Ellis, these curricula provide us what ought to happen, and they, more often than not take the form of a plan, an intended programme, or some kind of expert opinion about what needs to take place in the course of study. The teacher, like the patient, ultimately decides whether the prescription will be followed. In essence, “the developer proposes, but the teacher disposes” (p. 4). What comes out clearly is the separation between the designer or developer and the end user. It is expert-driven and the designer decides on the topics and concepts to deal with (See Figure 1).

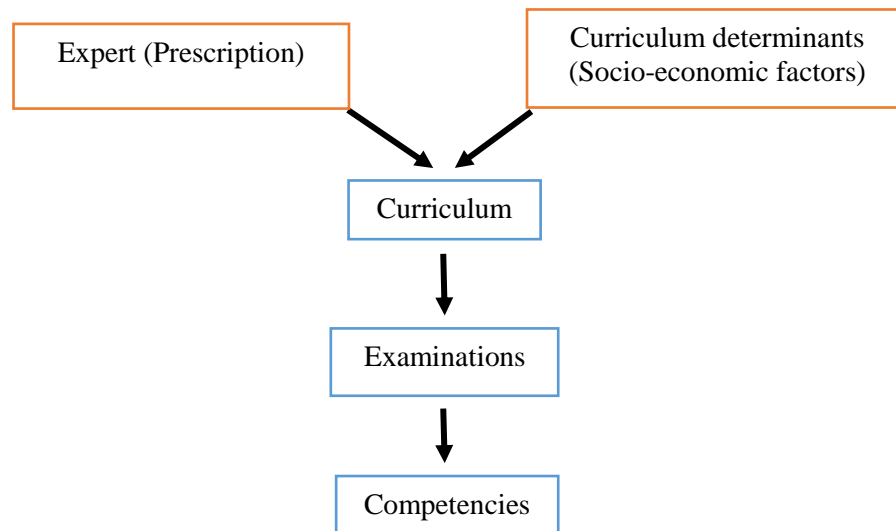


Figure 1: Prescriptive or expert-driven curriculum.

(Source: Ellis, 2004)

Figure 2 shows a linear system of curriculum design that does not allow feedback in the system, depicting a top-down or expert-driven approach. Ralph Tyler and Hilda Taba's objectives models are examples of the prescriptive model. The objectives model had its origins in the United States and has mostly been associated with behaviourist and neo-behaviourist learning theories. The main criticism against the objectives model is that it is imposed on schools. Consequently, it does not take into account the individual culture of a school and the unique relationship that each school has with its environment. For the same reason, the objectives model does not allow teachers and learners to realise their full educational potential (Rodwell, 1978). In relation to the current study, it can be argued that the prescriptive model is defective since it does not provide the curriculum implementers to include their ideas and beliefs about what could be built into the structure and framework of the curriculum.

2.1.4 Descriptive Model

Descriptive (or experience) curricula go beyond the prescriptive terms as they force thought about the curriculum, not merely in terms of how things ought to be but also how things are in real classrooms (Ellis, 2004). They, therefore, provide glimpses of the curriculum in action. The descriptive model is shown in Figure 2.

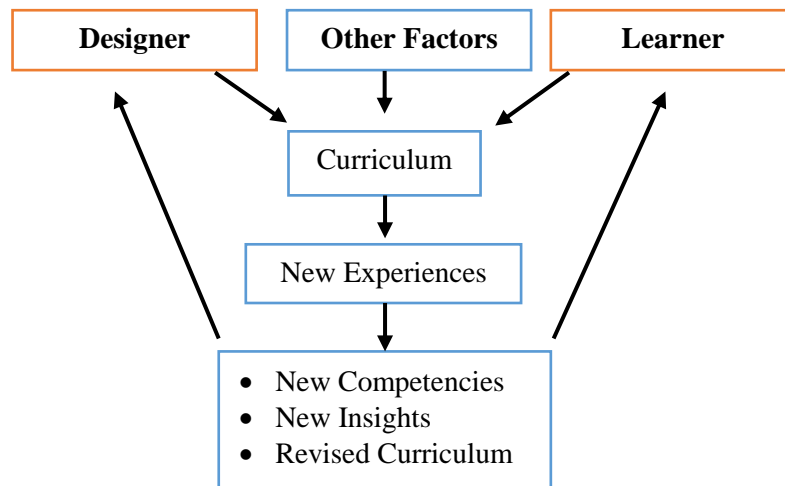


Figure 2: Descriptive or experience curriculum.

(Source: Ellis, 2004)

Unlike the prescriptive model, the descriptive model takes the interest of a learner into consideration. Apart from that, the curriculum model allows feedback in the curriculum, bottom-up. The descriptive curriculum feeds back into the system which results into a holistic cycle with new insights and knowledge. All stakeholders work together and bring on board new developments around them.

According to Prideaux (2003), a good example of a descriptive model is the situational model advocated by Malcolm Skilbeck. Skilbeck's model of school-based curriculum is a reaction against perceived shortcomings of centralised curriculum development and the various models used in centralised curriculum development and implementation (Rodwell, 1978). The model emphasises the importance of situation or context in curriculum design. In this model, curriculum designers thoroughly and systematically analyse the situation in which they work for its effect on what they do in the curriculum. The impact of both external and internal factors is assessed and the implications for the curriculum are determined. Undoubtedly, this model is consonant with the proposition of this study that a situation has arisen today in Zambia, which requires issues of sustainability to be integrated in the curricula of tourism and hospitality training institutions.

2.1.5 Application of Curriculum Theory to Current Study

As I have indicated from time to time in the preceding section, several elements of curriculum theory can be applied to the current study. In this section, strengths and weaknesses of the theory and how these were exploited to make the theory relevant to this study is shared.

(a) Weaknesses of the Theory

Gatawa (1990) asserts that Young's curriculum theory can be said to have failed to bring out new knowledge in curriculum matters apart from restating the usual processes and procedures such as traditional curriculum elements of purpose, content, organising learning and teaching activities, and evaluation or assessment.

(b) Strengths of the Theory

The strength of curriculum theory in curriculum studies is that it incorporates two perspectives, namely the critical and normative roles of curriculum. The critical role helps to analyse the assumptions, strengths and weaknesses of existing curricula. In addition, CT provides a framework in which a curriculum can be critiqued. These are the educational, philosophical, psychological and sociological perspectives. It encourages an eclectic use of theories which is very dynamic in nature, as well as supporting specialised knowledge by educators. Looking at the normative role, most of the curriculum scholars are agreed on the elements of the curriculum, which make the bedrock of Young's theory. It means, therefore, that the theory can be applied universally. The curriculum in tourism and hospitality training in Zambia will be tested against the elements of the curriculum, particularly in the area of content.

(c) Appropriateness of the Curriculum Theory to the study

The appropriateness of curriculum theory to this study is evident. The study deals with a real environmental issue, which needs clear understanding from both educational and sociological perspectives. Different schools of thought present perspectives on how educational curricula ought to be arrived at; social meriolists believe that education is a tool to reform society and create change for the better. Dewey, representing progressive reformers, felt that the curriculum should ultimately produce students who would be able to deal effectively with the modern world, social efficiency educators believed that

curriculum would optimise the “social utility” of each individual in a society and that education that prepares for life is one that prepares definitely and adequately for these specific activities. Clearly, these perspectives indicate that the curriculum content chosen for any educational institution should prepare students for the work after school. In this vein, different curriculum models, whether prescriptive or descriptive, all talk about “selection” of content to meet societal needs. In the current study, content on greening is of value to society because it prepares learners to acquire good morals such as reduction of environmental degradation and adopt environmentally friendly behaviours such as green practices. It is desirable that this content be part of the curricula of tourism and hospitality training institutions. The only difference among these models, as I have already stipulated when I was discussing them, is that some are flexible and allow for revision of the curriculum while others are rigid because they do not vide for feedback. Additionally, models, which are prescriptive, tend to adopt a top-down approach to the curriculum making process while those, which are descriptive, allow bottom-rung stakeholders to have a say in the process.

2.2 The Stakeholder Theory

The second theory that guided this study is the Stakeholder Theory by Edward Freeman 1984 originally detailed the stakeholder theory of organizational management and business ethics that addresses morals and values in managing an organization. The theory is highly popular in business, including tourism and hospitality business (Mainardes, Alves & Raposo, 2011). The underlying idea of the theory is “that a business has stakeholders – that is, there are groups and individuals who have a stake in the success or failure of a business” (Freeman, Harrison, wicks, Parmar & de C 2010, p. xv). It suggests that the needs of shareholders cannot be met before the needs of stakeholders are met, hence a broader network and interaction with stakeholders is necessary (Oruc & Sarikaya, 2011). Managers need to consider all of those groups and individuals that can affect or are affected by the accomplishments of the business enterprise (Freeman, 1984). According to Freeman et al., this idea signifies “an abrupt departure from the usual understanding of business as a vehicle to maximize returns to the owners of capital.” The theory is in line with the objectives of the study. This is because the tourism and hospitality industry has multiple stakeholders whose interests should be taken into account. These include both internal stakeholders (owners, customers, employees, and

suppliers) and external stakeholders (government, competitors, consumer advocates, environmentalists, special interest groups and the media). As postulated by Freeman (1984), these stakeholders influence and/or are influenced by the industry.

2.2.1 Appropriateness of the Stakeholder Theory to the Study

One of the major considerations of stakeholders is environmental protection. The stakeholder theory explains the reasons why firms adopt environmental protection activities, as they respond to multiple stakeholders on environmental issues. According to Molla and Abareshi (2011), business firms are increasingly being urged by different stakeholder groups to meet their responsibilities concerning corporate sustainability. In that regard, they pay attention to recyclable materials in consumer packaging, educating employees on environmental issues, participating in community efforts to clean up the environment and appealing to investors who want to invest in green companies (Stoner, 2005). Meeting responsibility extends to the provision of education in the tourism and hospitality industry.

The stakeholder theory is appropriate to this study in many ways. Firstly, the theory seeks to explain perceptions of managers with regards to stakeholders' influences on organisational decision on green management in their organisations and in coming up with a green management framework for the organisations. Secondly, for workers in the organisations to implement the decisions on green practices demanded by stakeholders, they need skills. According to ILO (2012), right skills for green jobs are a key prerequisite to make the transition to a greener economy happen. Skills gaps can be a major bottleneck for enterprises to respond to stakeholder demands. Therefore, courses in tourism should, in this context, be taught to fill up the gap. The courses that are taught should relate to enterprises such as travel agencies, resort management, tour organisations, hotel reservations, casino management among others (Mernades *et al.*, 2011). In order for this to happen, training institutions should be equipped with the right curricula; curricula which promote teaching innovations that are coming on in the industry. Through the supply of both human and environmental resources, training institutions should train the right human resource who should prudently operate the tourism and hospitality industry and promote green practices. This is the key message in the current study, that tourism and hospitality training institutions should model their curricula to integrate green related

topics. They should create curricula that will respond to the need for conserving water and energy, waste management and renewable resources.

Tourism and hospitality enterprises need to play an active role to overcome major environmental issues because these issues have an adverse effect on the environment. The enterprises need to offer environmental-friendly products and services to green tourists in order to be sustainable. In the context of this study, the stakeholder theory focuses on the characteristics and behaviour of tourism and hospitality organisations (Lorente, Jimenez & Gil, 2003). Lorente et al. further state that the theory is especially suitable as a way of approaching environmental management issues regarding stakeholders as a part of the overall social responsibility of firms (2003).

According to the stakeholder theory, there are three main reasons why firms adopt environmental protection activities. These are to gain legitimacy, to respond to stakeholder demands, and to respond to different strategies that stakeholders use to influence the environmental protection activities of firms (Lorente *et al.*, 2003). Therefore, these are the aspects, which the curriculum can include to ensure that green practices and sustainability education are taught to change the perceptions of the people and the industry. Therefore, this theory brings to the understanding that resources in the hospitality industry should be well-planned and taught to enable the tourism sector benefit from the knowledge.

The theory also has an aspect known as ethic of care, which involves three components namely being open to others, accepting other creatures and supporting others when they need help (Oruc & Sarikaya, 2011). Accordingly, compliance with stakeholders' environmental demands ultimately reflects a moral commitment that seeks social recognition through the protection of a common good, namely, the environment; such commitment is not necessarily linked to financial reasons (Lorente *et al.*, 2003). The urgency with which the business entity reacts to stakeholder requests renders the theory dynamic (Mernades *et al.*, 2011).

2.2.2 Weaknesses of the Stakeholder Theory

Several criticisms have been levelled against the stakeholder theory. One of them is that it diverts attention from creating business success to concentrating on who share its fruits

(Ambler & Wilson, 2006). Ambler and Wilson ask: But what right have stakeholders to make the claims they do? Further to this, stakeholders represent a large and diverse or heterogenous group, sometimes with opposing interests and roles; the challenge of this intra-stakeholder heterogeneity is that it is impossible for a company's management to please all stakeholders at the same time (Harrison & Freeman, 1999). Additionally, some stakeholder may not have the ability to influence decisions and to change the fact that the opinions and views of others (usually louder or more powerful voices) hold more sway within the organisation. This has been described as variability in salience and the impact of the various stakeholders (Fassin, 2008). The implication of this for this study is that the voices of those stakeholders who advocate for environmental sustainability may be thwarted.

2.3 Chapter Summary

Information reviewed in this chapter shed light on the theoretical as well as the conceptual frameworks. The theoretical framework is buttressed on curriculum theory and the stakeholder's theory. Curriculum theory presents different perspectives on how educational curricula ought to be arrived at. However, it was noted that, for most of these perspectives, the underlying issue is that education is a tool to reform society and create change for the better and that the curriculum should ultimately produce students who would be able to effectively deal with the modern world. The curriculum should optimise the "social utility" of each individual in a society and education should prepare students for life. The stakeholder theory, on the other hand, suggests that the needs of shareholders cannot be met before the needs of stakeholders are met, hence a broader network and interaction with stakeholders is necessary. Since students are key stakeholders in their education, their needs, particularly those, which prepare them for life after school, should be met. The theory argues that existing management theories are not equipped to address the quantity and kinds of change that are occurring in the business environment. The two theories have been used to help understand the problem at hand.

The chapter has also presented a conceptual framework. The framework explains the key ideas, concepts and constructs used in the study and explains the relationships that exist among them. In the next chapter, a review of literature is presented.

CHAPTER THREE: REVIEW OF RELATED LITERATURE

3.0 Introduction

This chapter provides a review of literature related to the study on integrating green concepts and practices in the tourism and hospitality industry in Zambia. The chapter starts with the conceptual review, extent of integration of green concepts and practices into curricula, lecturers and students understanding of green concepts and practices, aspects of green concepts and practices for integration into the curricula, framework which could be used to integrate green concepts and practices into curricula and a chapter summary.

3.1 Conceptual Review

There has been growing interest in greening research due to evidence that it positively affects human wellbeing (Frumkin, 2013). The term ‘greening’ has been defined as the process of making or becoming more aware of environmental considerations or as the process of transforming artifacts such as space, lifestyle or brand image into a more environmentally friendly version. Loeser (2013: 5) defines the term ‘green’ as “technologies and processes that are environmentally friendly, that is, which have a lower negative impact on the natural environment than conventional ones.” Similarly, Steg and Vlek (2009) define pro-environmental or green behaviour as behaviour that minimises harm to the environment as much as possible, or even benefits it. Since the meaning of greening is attached to sustainable development, it can alternatively be defined in a greening business sense as a long-term process of optimising performance while taking natural resource restrictions into account, thus allowing for enduring business activities without compromising the needs of future generations” (Bansal, 2005), which is essentially the definition of sustainable management.

It is a well-known fact that environmental issues have ushered in the concept of green in all spheres of human life, including the tourism and hospitality industry. Current literature uses “green tourism” and “ecotourism” interchangeably. In this connection, Chandel and Mishra (2016: 23) define ecotourism as “responsible travel in which the visitor is aware of and takes into account the effects of his or her actions on both the host culture and the environment.” With this origin at hand, different countries have adopted the concept in

different ways to suit their concerns. Zambia, a country which is working to develop its tourism sector, is one such country.

Literature has shown that the growing importance of sustainability education to the tourism and hospitality industry has resulted in an increased pedagogical discussion pertaining to how to integrate or incorporate sustainability into the training curriculum (Deale *et al.*, 2009) and determining tourism and hospitality stakeholders' attitudes towards teaching sustainability in the curriculum (Barber *et al.*, 2011). However, despite the strong interest in sustainability education, Deale *et al.*, (2009) revealed that sustainability is rarely taught within the curriculum. Hence, Deale's study moved the discussion away from should sustainability be taught within the tourism and hospitality curriculum towards a discussion of how to best teach sustainability within the curriculum. The same article suggests that an integrated sustainability curriculum will provide students with a better education and better preparation for the tourism and hospitality profession than limiting its inclusion to specific classes or majors.

Deale *et al.*, (2009) argued that having sustainability as the end goal of tourism and hospitality will result in natural integration of sustainability into the curriculum because sustainability is the main context of interest. They proposed a model in recommendation for integration of sustainability into the tourism and hospitality curriculum, which demonstrated the need to view sustainability as the ultimate context of focus and tourism and hospitality as a subcomponent of that focus.

Taimur (2020) noted that sustainability as an emerging field was established to respond to global sustainability challenges among them environmental pollution, land degradation, climate change, wars, poverty and diseases. According to Taimur, SE required the kind of learning which could explore the depth of things and bring a shift from transmissive to transformative learning in order to get a positive response. Furthermore, Taimur argued that to establish this kind of learning, transformative pedagogies were needed. Only then could pedagogical approaches make the development of the key competencies needed for promoting sustainable development. It's important for instructors to have pedagogical knowledge along with the content knowledge on sustainability for effective implementation of SE. Thus, Deale *et al.*, (2009) and Taimur (2020) endeavoured to explain HOW to best teach sustainability within the curriculum, that is, by integrating sustainability into the tourism and hospitality curriculum, and by

using transformative learning. Wright (2007) also observed that the curriculum for the hospitality industry ought to modernise itself so that the trainees can become relevant to all the communities and countries unlike failing to work in other industries because the content they learnt was shallow. Goodman and Sprague (1991) are of the view that hospitality education programmes must continually shift to meet changing demands in the hospitality industry.

Policy makers, trainers, academics and other key stakeholders should all participate in the reorientation of tourism and hospitality education to make sure that trainees are being equipped with the right content and pedagogies for SE. UNESCO (2017a) who submitted that, to engrain this kind of learning, action-oriented, pedagogical training for sustainability education transformative pedagogy is needed to support collaboration, participation, self-directed learning, problem-orientation, inter and trans-disciplinarity, and the linkage of formal and informal education support this standpoint. UNESCO assert that only such pedagogical approaches can make possible the development of the key competencies needed for promoting sustainable development. I therefore further argue that, because SE supports all these good attributes, there is urgent need for the tourism and hospitality training institutions to integrate environment and sustainability education or green concepts and practices in their curricula; it is relevant to the Zambian tourism and hospitality industry as a sector and to the Zambian society as a whole.

There appeared to be a consensus in the literature of the need to teach sustainability and the importance of teaching it from the view of stakeholders. However, Dale and Newman (2005) argued that there was a disconnection between the consensus that teaching of sustainability in tourism and hospitality classrooms was important to the tourism and hospitality industry and actually teaching it. In this regard, Deale *et al.*, (2009) brought to the attention of tourism and hospitality educators that while many educators thought sustainability was important, very few actually taught it. Deale and his colleagues further argued that part of the disconnection could be attributed to the lack of a coherent approach in incorporating sustainability into tourism and hospitality curricula.

It is noted that, for those tourism and hospitality training programmes that do not currently teach sustainability courses or attempt to integrate sustainability into their curricula, the training providers should ask themselves if they are providing the best and most relevant education by leaving sustainability out of the tourism and hospitality curricula. This point

is reiterated by Jurowski and Liburd (2001: 25) who state that, “the integration of the principles of sustainable development is critical because, as one of the world’s largest industries, tourism and hospitality should actively contribute to implementing the environmental and socio-cultural principles of sustainable development.”

The main purpose of tourism and hospitality sustainability programmes is to prepare the future tourism and hospitality professionals for a sustainable workforce. It may be noted that since the profession is moving towards sustainability, so should the curricula. It appeared that it could, but as Deale *et al.*, (2009) noted, it has failed to do so with a low percentage of hospitality educators actually teaching any aspect of sustainability to their trainees.

The need for a ‘tourism and hospitality sustainability curriculum’ stems from the tourism and hospitality industry being among the largest industries in the world, which consequently has many impacts on the locals where it takes places. Thelero (2014) defines the tourism and hospitality sector as businesses such as hotels, bars, and restaurants that offer people food, drink, or a place to sleep. Parfitt, Eatherley, Hawkins & Prowse (2013) divided the tourism and hospitality sector into for profit and not for profit divisions. However, this study shall refer to tourism and hospitality sector to mean establishments such as hotels, lodges, restaurants, and cafeterias which operate on a for-profit and not for-profit basis. All these types of facilities are included in the ‘Horeca’ subdivision of the hospitality sector. ‘Horeca’ stands for ‘hotels, restaurants and cafes (Marthinsen, Sundt, Kaysen & Kirkevaag, 2012).

Archer, Cooper and Ruhanen (2005) reviewed the potential positive and negative impacts of the tourism and hospitality industry by addressing a very important fact that impacts are unpreventable, but effective planning and education could be tailored on ways to minimise the negative impacts while encouraging the positive ones. They argued that examples of positive impacts might include economic benefits such as generation of employment, promotion of peace, preservation of cultural and natural resources, as well as the significant economic impact of bringing outside money into the community. They further argued that the tourism and hospitality industry is equally recognised for its negative impacts among them environmental and cultural degradation, climate change, biodiversity loss, and decreases in moral standards leading to increased crime, prostitution, and gambling (Postma & Schmuecker, 2017). Therefore, the many positive

and negative impacts of tourism and hospitality mentioned here place an important burden on tourism and hospitality sustainability curricula to be responsive to these.

Tourism and hospitality students in this case can become effective managers if they are taught about sustainability in many contexts across the curriculum. Simshauser (2021) refers to students as potential ‘change agents’ that have the ability to bring sustainability into the tourism and hospitality industry. Kevany (2007) supported the argument above and stressed that educating students about sustainability will not only be popular among students, but there will also be a ripple effect (positive outcome) from their sustainable education into the workplace. Kevany further emphasised that it is certainly important to teach students from a variety of perspectives about sustainability in order to lessen tourism and hospitality’s negative impacts and maximise its positive impacts in general, but more specifically teaching sustainability is important because a destination’s natural and cultural resources are tremendously strategic resources. He further added that if trainees are not educated about sustainability or green concepts and practices, there will be increased environmental concerns on the part of the hotel operators, consumers, governments and nongovernmental organisations who will put pressure on the industry to invest in more ecofriendly or environmentally friendly concepts and practices (Font and Buckley, 2001; Honey, 2002).

Vital to the future of the tourism and hospitality industry are trainers or educators capable of tackling the challenges that the industry faces in the 21st century. As future change agents, it will become increasingly important to prepare students to deal with the complexities of sustainability within the tourism and hospitality industry (Wade, 1999; Simshauser, 2021). The United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2017b, p. 32) states that “greening is an emerging and ongoing phenomenon that should become a permanent part of the institutional ethos.” In the current Zambian tourism and hospitality curricula, sustainability education is poorly integrated or incorporated, hence the proposal for this study to address this sustainability gap through the proposed sustainability education training framework.

Sustainability in tertiary education has been explored by scholars such as: Millar and Park (2013), Deale *et al.*, (2009), Boley (2011), and Chawla (2015). Deale *et al.*, (2009) cited in Chawla (2015) contended that literature in hospitality education indicated that SE was a highly underexplored area of research and still in its infancy. Boley (2011) attested to

the statement and advocated an integrated approach to embedding sustainability within all aspects of hospitality education and even argued that this was the ‘ethical’ thing for curriculum developers to do. He strongly supported the case and posited that SE can enhance employability (as the curriculum is informed by the needs and demands of the industry), that it will produce graduates that could enhance the destination’s triple bottom line and that the complexity of this subject area would propel students towards higher-order learning. Deale *et al.*, (2009) was of the view that integration of SE across courses could indeed be of a very important concern, given the interdisciplinary nature of hospitality education. This is in line with what this current study is proposing and advocating. Jurowski and Liburd (2001) captured this too and noted that when students are taught how these principles are related to specific management functions in various courses, they will be better prepared to apply them in the management of tourism and hospitality operations.

In addition, Millar and Park (2013) also supported this line of reasoning and argued that the curriculum must be designed in such a way that the students understand the inter-relatedness between operations, finance and society. Millar and Park also recommend contextual learning, as this could result in more specific and actionable techniques. To harness practical competences was seen as important, so that students are able to make the most optimal decisions under the ever-changing environment. Boley (2011) and Clarke (1997) agreed to this and took the discourse a step further by advocating that tourism and hospitality education must be situated within the context of sustainability (rather than the other way round), otherwise the latter will always remain a component thereof. Instead, sustainability should be the end result of hospitality education. Chawla (2014) also argued from this position and noted that SE in hospitality can only be effective when the context of such education itself is green.

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3.2 Review of Related Studies

This section examines literature on sustainability where authors from different parts of the world narrate their own studies concerning integrating sustainability into the curricula of various training institutions. Studies at global level cover international studies outside the African continent while regional studies cover studies done within the African continent. Local level studies are those that might have been done in Zambia.

3.2.1 Extent of Integration of Green Concepts and Practices into Curricula

Okanović et al. (2021) point to the importance of measuring and monitoring the share of green contents in all university activities. This is in the light of growing environmental problems and increasing requirements of green jobs. This section, therefore, reviews literature related to the extent that training institutions have integrated issues of sustainability in their curricula.

(a) Studies At Global Level

According to Sengupta, Blessinger and Yamin (2020), academics in the past have conducted studies to find out about courses on sustainability that are offered in universities. Their study revealed that a limited number of universities have integrated these courses into their curricula. Sengupta *et al.* explain that Rundle-Thiele and Wymer (2010) had examined standalone courses in New Zealand and Australia and found that only 27% of universities in Australia offered a dedicated course in ethics, CSR (corporate social responsibility), or sustainability. Conversely, a study of both European and US-based institutions found that CSR and sustainability were offered as compulsory standalone courses or modules (Moon and Orlitzky (2011). The data from these studies showed that more than 75% of undergraduate programmes and more than 55% of MBA programmes offered CSRS courses. These studies therefore show that the integration of green concepts and practices into curricula has not been done in the same way in different institutions of learning across the globe. This statement agrees with Brazier (2014) that the incorporation of ESD in tertiary education institutions and secondary school curricula has been done with varying levels of success.

A study by Hweng et al. (2015) was conducted in Hong Kong and looked at best practices in the tourism education curriculum. The study was conducted on a sample of 106 students and lecturers who taught and learnt tourism and hospitality in three universities. The study found that the university curriculum emphasised on the acquisition of green practices and content knowledge both theoretically and practically. It was learnt that students were made to go through the preparation of the rooms, ensure there is clean air, energy saving lights are well lit and ensure that the quality of water is of standard according to the hotel ratings and these aspects were examined. When it came to wildlife conservation, each student was asked to design a plan on how a hotel can exist within the

ecosystem and remain sustainable without disturbing the natural environment. After that, the curriculum demanded that the students participated in the construction phase to see how the plan worked and to take internship in such hotels so that they had a feel on how best to protect the environment in the hospitality industry. With such findings at hand, it was not known how the Zambian tourism and hospitality training institutions designed their curricula and trained their students, hence this study.

In Mexico, Daisi (2018) investigated how the tourism sector was sustaining the environment along the beaches of the ocean. Data was collected from 12 hotels and 48 owners of the hospitality firms. The study found that the sustainability of their hotels was dependent on the hiring of highly trained graduates who had learnt the art of hospitality and they were the ones who came to plan and ensure that the hotels were eco-friendly and conformed to the international practices on green conservation. The study also found that the employers preferred some graduates from specific universities because they had the skills and knowledge needed for the continuous cleanliness and provision of excellent green responsive accommodation and pleasure resort. Therefore, the preferred universities had their curricula designed to build the students with the knowledge they required to have the market in the hospitality industry. In the Zambian sector, it was not known on how the tourism sector built the industry to have employees well trained to respond to the green needs in the tourism industry, hence this study.

A study by Thomas *et al.* (2019) specifically demonstrated the need for an increased focus on incorporating sustainability into the hospitality curriculum. Their study highlights the large gap between educators' attitudes in favour of sustainability and schools actually teaching sustainability. They argued that 72% of the hospitality educators sampled indicated that they felt it was important for students to be taught about sustainable issues, green technology, recycling and conservation from the first year of any hospitality related qualification up to the last year. However, only 12% of them were actually teaching sustainability in the classroom. These findings reveal a desire amongst hospitality educators to teach sustainability and green practices if they were included in the curriculum. How the Zambian training institutions were including sustainability and green practices in their curricula was the purpose of this study.

Barber *et al.* (2011) examined the perceived importance of sustainability amongst different stakeholders of hospitality education (students, educators, and industry practitioners). They compared stakeholders' environmental attitudes, environmental behaviour, interest in sustainability, importance of environmental issues within the hospitality curriculum, and priority of which environmental topics should be taught within the hospitality curriculum to see if there are differences between the stakeholders. Their results revealed that all three stakeholder groups demonstrated a 'sincere' interest in environmental sustainability, but that there were significant differences amongst the stakeholders as to the level of importance they attached to environmental sustainability. While hospitality educators had higher environmental attitudes than industry professionals and students, the study found that industry practitioners were more likely to participate in environmentally friendly behaviour in order to save money. Despite the differences among the stakeholders, they generally agreed that teaching sustainability in the tourism and hospitality curriculum was a worthwhile pursuit.

An interesting case of integration of ESD into the curriculum of a training institution happened at the University of Glasgow, in Adam Smith Business School, in the UK. The project was undertaken by Yingru Lim and Kathleen Riach in 2020, during the Covid-19 pandemic (Lim & Riach, 2021). The Business School had over 300 staff and 6,000 students. Lim and Riach launched the SDG Challenge, which inspired teaching staff to integrate one or more of the SDGs into their teaching and course content. They also provided a number of short sessions introducing the SDGs to staff, established an online space with resources and presentations staff could utilise for course delivery, and provided ideas of different approaches to embedding the Sustainable Development Goals (SDGs), from relatively 'lite' in terms of using particular examples, towards more sophisticated ways of integrating them into assessments and intended learning outcomes. According to Lim and Riach, the SDGs offered a starting point to talk about sustainable development issues and their relevance to business education. Participants were encouraged to focus on the impact of aligning curriculum content to the SDGs and making this connection explicit to students. The staff was given ownership of how they chose to integrate the issues covered by the SDGs, while Lim and Riach offered guidance and resources. This initiative by the Business School at the University of Glasgow gives some insight of what training institutions can do to integrate sustainability issues in their curricula.

Baghdadi (2022) studied the integration of green education and sustainable development in Palestinian educational institutions. This study found that the Palestinian Ministry of Education had made continuous efforts to improve the level of Palestinian curricula and made them equitable with the level of development and change in various fields. According to Baghdadi, one of the most notable of these efforts was the directive to include green school educational lessons in various educational curricula, including mathematics, science, arts, computer science, and others, in order to improve students' positive attitudes toward environmental concepts. Again, these efforts followed in Palestine are points that other countries can learn from.

Liu, Watabe and Goto did another study at a comprehensive research university in Japan in 2022. Qualitative case study data were collected through mixed research methods, including questionnaires and semi-structured interviews with instructors and learners. The findings demonstrated that interdisciplinary teaching and learning can be enhanced by integrating sustainability issues into non-environmentally related courses. By integrating sustainability issues into the curriculum, students and instructors from various disciplines can collaborate with the intention of enhancing students' abilities to integrate knowledge and communicate with people from different backgrounds and experiences (Liu *et al.*, 2022).

(b) Studies At Regional Level

At a regional level, a few studies have been done on the extent of integration of green concepts and practices in college curricula. Mwendwa (2017) conducted a study to assess the extent to which curriculum of secondary schools in Tanzania addressed sustainable education through integration of environmental education. The study involved students from all the classes at the secondary school (that is, from Form 1 to Form 4), experienced teachers in geography and biology and a head teacher. The study established that most concepts and practices about environmental education and education for sustainable development were delivered mainly through geography while some topics were taught in biology. This is presented in Table 1.

Table 1: Environmental education contents in secondary schools in Tanzania.

Subject	Class	Topic
1. Biology	Form 1	Safety in Our Environment
	Form 2	Balance of Nature
2. Geography	Form 1	Climate
	Form 2	Waste Management for Economic Development
		Sustainable Use of Forests
		Sustainable Mining
		Manufacturing Industry
	Form 3	External Forces that Affect Earth Mass Wasting Weathering, Erosion and Deposition
		Soil
	Form 4	Climate and Natural Regions
		Environmental Issues and Management
		Environmental Conservation

(Source: Adapted from Mwendwa, 2017)

Furthermore, teachers used an integrated teaching approach to teach environmental education. According to Mwendwa, the content looked adequate and addressed mostly important and contemporary environmental issues, such as interactions of organisms, concept of climate, water management, forest resources and pollutants from manufacturing industry, erosion, environmental issues, and environmental conservations. Mwendwa's study shows that the main challenges facing implementation of environmental education in Tanzania included an integrated learning approach, inadequate knowledge on environmental education, lack of support from each other and from school administration, and cultural myths and beliefs. Although this study was done at secondary school level, there are lessons that the current study can learn from it, such as, the content that can be integrated, the level of integration, and the amount of knowledge of environmental education among various stakeholders.

In Rwanda, Domingo (2019) conducted a study on the competition practices amongst employees in the tourism sector. The study investigated the curriculum the tourism universities offered to their students. Data was collected from 230 students who were in employment in the hospitality industry. The study found that students covered green

practices in their curricula, which made them to be more vested in their work in the industry unlike their friends who did not cover such content in their universities. The green practices were also examined theoretically and practically in the universities and the internship was all about how practical the knowledge was applied by the students. The study further established that the practical aspects of the green practices carried more marks than the theory examinations, which made the students to be more practical than other university graduates. This study provides evidence on how the green practices matter in the training and curricula for the hospitality industry. The current study explored the Zambian training institutions and how their curricula responded to the needs of the tourism and hospitality industry.

Furthermore, Koge (2018) also conducted a study on the training practices in hospitality institutions adopted in the Nigerian institutions. Data was collected from 204 participants who worked in the hospitality industry in two states. The study found that the hospitality curriculum was all about teaching practices, which included washing the rooms, beddings, curtains and kitchen utensils. Others included front office practices, making the facility habitable, food preparation and customer care. Other curriculum content included environmental practices like disposal of waste, sewerage contents, plastic and glass related materials, which remain harmful to the environment even after many years. Such graduates provided basic services because their diploma was meant to be the basic service providers and not to be the managers. Since this study was on the Nigerian curriculum and its content, the current study sought to investigate how the Zambian tourism and hospitality related universities trained its students.

A study jointly initiated by the Global University Network for Innovation (GUNi), the International Association of Universities (IAU), and the Association of African Universities (AAU) in May and June, 2010 investigated the extent to which sustainability issues were integrated into traditional disciplinary education in 69 institutions in Africa. According to GUNi, IAU and AAU (2011), responses from the institutions showed that sustainable development issues had been fairly woven into all the traditional disciplines, mostly in the social sciences. Out of 68 institutions, which responded, only 25.5% offered specific sustainable development degree programmes; 72.1 % did not while for the rest, the IRTs did not have information.

In South Africa, Wolff (2015) studied the extent to which the Life Sciences curriculum integrated green economy content. Wolff posits that functional green economy knowledge amongst South African citizens could address socio-economic challenges in South Africa. Firstly, the study used document analysis of the Grade 10-12 Life Sciences Curriculum and Assessment Policy Statement (CAPS) to determine whether green economy content was prescribed in the CAPS document and to what degree. Secondly, Grade 10 Life Sciences teachers completed questionnaires and participated in interviews to reveal their opinions on the integration of green economy content in the Life Sciences curriculum, their understanding of green economy and its implementation, as well as their opinions on the relevance of the current Life Sciences curriculum's content for afterschool use.

The research findings revealed that the Life Sciences curriculum could serve the purpose of introducing students to green economy aspects. However, changes must be made to the curriculum so that functional green economy content is integrated. At the time of the study, the curriculum did not provide guidelines for teachers on how to educate learners in such a manner that they were able to participate in a green economy. Much of the content related to green economy topics was prescribed as extra content without the inclusion of student investigations or skill development activities. Furthermore, content on plants and human anatomy was prescribed and assessed in much detail than the environmental studies strand, resulting in the exclusion of much green economy related content. Findings indicate that socio-scientific issues such as green economy are not linked to the environmental studies subject content, which means that daily-life application of content remains unclear to students. The researcher proposed that curriculum designers should completely integrate green economy content into the Life Sciences CAPS document, including not only content for discussion purposes but also investigations and activities which would lead to skills development, compelling learners to modify their behaviour and seek solutions to the urgent problems faced by humanity in terms of environmental degradation and economic collapse.

Largely, literature from the region shows that sustainability has been integrated in the curricula of training institutions. Therefore, it was imperative to find out if the same was true for Zambia.

(c) Studies At Local Level

Some studies have been conducted in Zambia regarding the teaching of greening in institutions of higher learning. Mbewe (2019), cited in Moonga and Chileshe (2020), carried out a study in Lusaka entitled “*An assessment of green computing awareness and adoption in higher education institutions in Zambia*” at the Zambia Centre for Accountancy Studies (ZCAS). The study addressed a general concern about whether the use and eventual disposal of ICT hardware would have minimal impact on the environment. Mbewe asserts that the grooming or modification of behaviour of users for the future generation takes place in educational institutions. Her paper, therefore, explored the level of use of ICTs in Higher Educational Institutions (HEIs) with regard to the awareness and adoption of green computing in these institutions. The results indicated that although there was a high level of use in the HEIs, the level of green computing awareness was simply moderate, and the level of green computing adoption was low. The study concluded that there was need for HEIs, the IT community and the legislative bodies to do more in introducing practices that would promote eco-friendly use and disposal of ICTs in Zambia.

Another study done by Moonga & Chileshe (2019) entitled “*Zambia’s transition to a green economy.*” The study stated that Zambia had been on a road to transition from a ‘brown economy’ to a ‘green economy’. The key aim for such a transition was to eliminate the trade-offs between economic growth and investment and gains in environmental quality and social inclusiveness. The study described the events and activities done and implemented in the country leading to making Zambia a clean, green and healthy nation as well as addressing social and economic challenges. The study looked at the global origins of the green initiative and its development in Zambia through policies and activities of both government and its cooperating partners. The study also examined the evidence of green growth in Zambia and the support the country was receiving in the implementation of the green initiatives. Finally, it analysed the linkages between green growth and sustainable development, as well as the challenges faced by the transition to a green economy. However, this study did not specifically study the integration of sustainability in the curricula of training institutions and, therefore, is very different from the current study.

The study done by Chilufya (2014) titled “*Integrating environmental sustainability issues in the Zambian 2013 revised science curriculum at Junior Secondary School level*” is closer to what the current study set out to do. The aim of the study was to determine the extent to which environmental sustainability issues had been integrated in the Zambian junior secondary school curriculum. The checklist for determining the extent of integration consisted of the 15 environmental sustainability issues as identified by the United Nations Agenda 21 (Sections I and II). Using an interview guide and a questionnaire to collect primary data, the study found that more topics on the biophysical (ecological) environment were included in the curriculum than social and economic issues. The researcher suggested that, within Zambia’s science education curriculum, a balance of issues (social, economic, ecological and political issues) on environmental sustainability was needed to develop learners’ potentials, values and skills. This should be the aim of every curriculum, whether at lower or higher echelons of learning.

3.2.2 Understanding of Green Concepts and Practices by Lecturers and Students

Concerning understanding of sustainability issues, Sonetti, Sarrica, and Norton (2021) are of the view that one starting step towards a real sustainable university community is to underpin the various meanings and relevance that students, administrative and teaching staff give to sustainability. Similarly, Ciocoiu (2011) is of the view that it is of utmost importance to first develop a full understanding of green economy before any steps can be taken to commence with its implementation strategies. Therefore, this section reviews literature related to the understanding of green concepts and practices among lecturers and students in institutions of higher learning.

(a) Studies At Global Level

Studies done globally show different levels of understanding of sustainability among lecturers and students. Reid and Petocz (2006) carried out a research project that investigated the ways that academics understood sustainability within their own disciplines in Australian universities. The study described a range of ways in which academics viewed sustainability in the context of their teaching, and a range of ways they suggested that sustainability could be integrated into their teaching. The project resulted from an industry/university forum held at Macquarie University (Australia) that identified the need to integrate ideas of sustainable development within university curricula in all

disciplines to prepare students for their professional roles. The 2002 Johannesburg Earth Summit also inspired it where participants emphatically endorsed the proposal that sustainable development needs to be an integral component of all levels of education. The study is useful to the current one because it gives insight into levels of understanding of sustainability topics embedded in their curricula.

A study by Huang (2023) among 2,000 Chinese university students revealed that the students had a comprehensive perception of the three dimensions (or pillars) of sustainable development and that environmental issues received the most attention from students, followed by economic and social issues. In addition, the study showed that students were inclined to view themselves as active participants in the cause of sustainable development, rather than as observers. However, Huang also noticed a tendency toward superficial green talk and anthropocentrism in students' discourse, an indication of the presence of a knowledge-behaviour gap (KBG). This gap has been identified to exist among many players in the environment. It was, therefore, of great interest to find out whether such a gap existed in training institutions in Zambia.

Sonetti *et al.* (2021) conducted a survey among 1,408 members of a polytechnic Italian university, specialised in engineering, architecture and industrial design, during December 2018 to January 2019. The data collected included free associations to sustainability, self-reported measures of knowledge and relevance of SDGs. Sonetti and his colleagues report that, despite the university being a rather homogeneous community, results showed diversities in the social representations of sustainability and SDGs. The results of factorial and cluster analysis showed an ecocentric representation of sustainability and a rather low consciousness linked to societal challenges. Relevant differences between academics, technical staff and students emerged; researchers and professors declared the highest levels of knowledge, followed by post-docs and PhDs, by the technical and administrative staff and then students. Interestingly, the results showed a discrepancy between the SDGs that are considered relevant for the self and the university. Results suggest that the University was not yet perceived as a community where sustainability could be enacted and not just taught. The scholars concluded that, if diversity in social representations was not openly debated, it could affect the way the new generation of engineers faced the challenges posed by sustainability. This study is of interest to the current study because it suggests that if graduates of training institutions

do not learn about green concepts and practices, they may face challenges in their work life. Nevertheless, the study is dissimilar since its focus was on an engineering university, not a tourism and hospitality industry. Notwithstanding, both Sonetti et al. and Huang's (2023) studies show that students showed more concern for the environmental aspect of sustainability than to the social and economic aspects. It was therefore of interest for the current study to investigate the disposition of students in Zambian tourism and hospitality training institutions concerning this matter.

Ibrahim (2019) conducted an evaluation of the Turkish hospitality training needs in the hospitality industry. The study evaluated the curriculum and its future needs in comparison with the European Union universities and facilities. The study established that the Turkish universities taught the recycle and reuse practices, which provided the basic concepts on the extent to which such practices can be used. However, it was found that the knowledge was only theoretical instead of being practical and that the lecturers were exposed to the best curriculum while their input on some new aspects in climate change was minimal and none at times. The study concluded that there was need for the students to be equipped with the knowledge on energy conservation and other green practices like the universities of the European Union did. For this reason, the study resulted into a curriculum review in the industry. This study is relevant to the current studies because it was undertaken in a hospitality training institution and its conclusion impelled the need to investigate the understanding of sustainability issues among students in training institutions in Zambia.

Bezeljak, Scheuch and Torkar (2020) did another study on students' understanding of sustainability and ESD. The study focused on Slovenian and Austrian biology teacher students' understanding of SD and ESD. The research was carried out at the University of Ljubljana and the University of Vienna. Altogether, 60 Slovenian and 60 Austrian pre-service biology teachers participated in the questionnaire-based study. Pre-service biology teachers answered a set of Likert-type and open survey questions. The study found that less than half of the pre-service biology teachers from Slovenia and Austria had a good understanding of the environmental aspects of SD, but they lacked understanding of the interconnections between the environmental, economic and social dimensions of SD. They described and connected ESD with environmental education and environmental awareness. In addition, students from both countries knew some

pedagogical principles of ESD, such as active learning and transformative education. An analysis with the sustainable development goals (SDGs) in focus showed that only some of them were mentioned by the teacher students. The results of the study contributed to the evaluation and development of curriculum for middle and high school biology teachers. The learning points here are that students may not have a complete understanding of SD and ESD and, therefore, an evaluation of curricula, like the current one, may be inevitable.

Louw (2013) studied literature from 2005 to 2011 on what it meant to be a sustainable university with a sustainable curriculum by looking at case studies from higher education institutions in order to begin to give guidelines for such an endeavour in an open and distance learning (ODL) institution, that is, the University of South Africa (Unisa). She noted that, although many education institutions in America had made sustainability one of their guiding principles and top priorities, yet similar changes to the curriculum were lagging behind. Louw concluded that universities should rethink their way of designing curricula, not to view existing study material as sufficient to cut and paste into a curriculum of the 21st century. The implication here is that curricula in institutions of learning should move in tandem with changes in the way of thinking in society. Therefore, it was a matter of interest to investigate whether college curricula in Zambia had changed in liaison with the requirements of society.

(b) Studies At Regional Level

A few studies have been done on the understanding of green concepts and practices among lecturers and students at a regional level. Mwendwa (2017) studied knowledge and understanding of basic environmental issues among Geography and Biology teachers in Tanzanian schools. The teachers selected had more than two years of experience while pupils were from Form 1 to Form 4. The study found that both teachers and pupils were fairly knowledgeable and had an understanding of basic environmental issues. The study reported that 31 out of the 40 students interviewed during a focus group discussion understood the meaning of the term 'environment' as surroundings around human beings, natural and artificial resources and the world in which people, animals and plants live. Further, 78 percent of all the pupils were able to describe the meaning of environment and environmental education, while 18 and 15 pupils, respectively, were able to mention

various environmental issues and to link and conceptualize environmental issues learned in class. Concerning teachers, an evaluation on whether they had specific training on environmental education was conducted through interviews. The results indicated that out of eight teachers interviewed, only two admitted to having received specific training on the subject matter, while the other three said they had not been trained in environmental education. They highlighted large class size, lack of teaching and learning materials, and lack of environmental knowledge on their part as the main barriers for effective teaching and learning environmental education in the school.

Another study was done by Eugene Wolff in South Africa in 2015. Wolff (2015) reported that teacher participants revealed that they had knowledge of environmentally green practices but were unsure of how these related to the economy. Undoubtedly, it is important that both learners and teachers understand issues to do with sustainability. The role of the teacher is crucial in fostering citizens who make informed and conscious decisions for a sustainable future (UNESCO, 2018). Teachers can only act as key change agents in transforming education and society if they are knowledgeable. On the part of learners, Brazier (2014, p. 280) asserts that when ESD is incorporated, it gives “more context to the curriculum, as well as enable students to develop the critical thinking required to tackle the big issues that face the planet now and into the future.”

Anyolo, Karkkainen and Keinonen (2018) conducted a study on Namibian school teachers’ perceptions of ESD and the teachers teaching practices using a qualitative-explorative study design. The data were gathered through two semi-structured interviews and lesson observations. The findings have revealed that senior secondary school teachers perceive ESD in terms of knowledge acquisition about the environment in order to use its resources sustainably for the benefit of future generations. The study has also revealed that teachers have positive sentiment toward the inclusion of ESD into the senior secondary school curriculum. Following this, they suggested that ESD should be either implemented as an independent subject or integrated with other existing subjects as a multi-disciplinary subject.

(c) Studies At Local Level

Similar to the regional level, only scanty literature is available at the local level. An extensive search for literature only yielded a study by Chilufya (2014). A perusal of

results in this study titled “*Integration of sustainability topics in the 2013 curriculum for Zambian junior secondary school level*” indicated that stakeholders and pupil-respondents had knowledge on environmental sustainability issues. However, since the emphasis of the curriculum was on the biophysical component of the environment, the knowledge that stakeholders had was associated only with the ecological environment. Chilufya further noted that results of her study also showed that environmental sustainability issues would highly be beneficial to learners and society at large once in the curriculum. While Chilufya’s study helps to put the current study into context, the point of divergence between the two studies is that her focus was on a junior secondary school curriculum while the current study focused on tertiary level curricula.

Generally, studies examined in this review show considerable understanding of sustainability issues among lecturers and students in the institutions of learning, be it at secondary school level or tertiary level, although the areas of emphasis differed and the levels of implementation differed.

3.2.3 Aspects of Green Concepts and Practices Which Can be Integrated into Curricula

Chakraborty, Singh and Roy (2018) assert that green curriculum should be practised throughout a learning programme at a continuous and consistent pace to ensure environment responsive behaviour among the budding students and creating a just and sustainable world. Therefore, this section reviews literature on aspects of green concepts and practices that can be integrated into curricula at various levels of a training programme.

(a) Studies At Global Level

The wide array of tourism and hospitality fields has contributed immensely to the growth of hospitality education and curriculum. As early as the 1970s, a survey by Rappole found that there were about 27 bachelor’s programmes, seven masters and two doctoral programmes in the 4-year institutions in the United States (Kent *et al.*, 1993). However, since 1992, the number of each degree has dramatically changed 142 bachelor’s programmes, 26 master’s programmes, and 12 doctoral programmes (CHRIE, 1991). In these programmes, various subjects are covered as part of hospitality curriculum such as finance, management, marketing, accounting, and information systems, which ultimately

help hospitality students prepare for their future career to fit in each of the specialised fields in the hospitality industry. With more and more 2-year or 4-year institutions opting in for hospitality education, assessing the hospitality curriculum has become a key issue as far as preparing a student for a successful career in the hospitality industry.

A descriptive study conducted by Deale *et al.* (2013) in the United States of America looked at sustainability education in the hospitality curriculum. The study was limited to 151 members of the International Council on Hotel, Restaurant and Institutional Education (ICHRIE) organisation. The sample represented only a small portion of the organisation’s membership (approximately 11%). A questionnaire was administered via an online survey tool and quantitative analyses of the data were conducted using the Statistical Package for the Social Sciences (SPSS). The study revealed that many educators did not actually incorporate sustainability into their classes although they may have indicated that they were interested in it and believed it to be important. Further, educators indicated that some sustainability education was being incorporated into the hospitality courses of those sampled. However, what is striking was that it did not yet appear that SE was integral to education in this field. These findings reveal a desire amongst tourism and hospitality educators to teach sustainability, but that the various challenges of actually doing so are cumbersome. Deale *et al.* (2013) provide an example of sustainability courses that are incorporated in the curricula in the USA (Table 2).

Table 2: Sustainability topics taught by Hospitality Faculty in United States of America.

No	TOPICS
1	Environmental management practices in hotels, resorts, & foodservice operations
2	Sustainable tourism design & construction
3	Waste management
4	Economic sustainability
5	Energy production, products, & conservation
6	Cultural preservation & sustainability
7	Social sustainability
8	Water supply, treatment, & conservation
9	Natural resource management & conservation

10	Sustainability indicators
11	Environmental impact analysis
12	Environmental law
13	Life cycle assessment
14	Environmental auditing
15	Ecological foot printing

(Source: Deale *et al.*, 2013)

A general overview of literature shows that hospitality-training institutions have not yet integrated solid waste management into the formal curriculum for training students in colleges and universities. For instance, Mayo (2003) identified and ranked relevant competencies needed by graduates of tourism and hospitality programmes. Her identification and ranking of the curriculum skills excluded solid waste management. Her skills were as follows: demonstrate techniques to manage and improve revenue, exercise listening and communication skills, which include oral and written skills, demonstrate how to manage subordinates by developing training programmes using performance appraisals, other skills are: know how to manage change, know and demonstrate how to motivate people, demonstrate financial accounting processes, exemplify a passion for service to the industry, the ability to plan and conduct team meetings so that all are treated equally, demonstrate food and beverage operations: principles of food preparation, production and supervision of employees, demonstrate marketing skills and know and follow the legal issues related to all aspects of operation.

Mayo's findings were in accordance with the six major content areas developed by Umbreit (1992) which are leadership, human resource management, marketing, financial analysis, total quality management, and communication skills. This also omitted greening as a component. Additionally, Wood (2003) undertook several comprehensive studies to compare hospitality management skills, which were learned in educational and workplace settings. While most studies have identified competencies and skills of hospitality graduates, few have been done to portray where these skills are best learned and rank them accordingly. Wood has identified the importance of the skills relevant to the learning environment. His study also proposed a model of course evaluation for industry-required skills. Breiter and Clements (1996) identified the typical postgraduate students' skill sets

demanded by the industry, which are then ranked by (Wood, 2013). The skills he identified in order of importance for an educational setting are as follows: research skills, hospitality Law, tourism promotion, computer applications, strategic planning, development planning, marketing, forecasting and budgeting, operational controls, rooms division management, sales technique, food and beverage management, employee training, managerial communication, leadership, employee relations, guest services and staffing. All this literature reviewed on courses offered in training institutions curriculum omits the major component of green practices in hospitality industry.

Another study by Rahman (2010) used a framework consisting of skills or competencies developed from the courses and a few generic competencies taken from past research. The framework that was established for the purpose of his study used both generic skills/competencies and hospitality specific ones. The broad categories of skill sets consisted of generic skills and hospitality related skills such as fundamental skills, functional area skills, and students' concentration area skills. In order to develop these skills (accept the generic skills), the courses were analysed thoroughly by looking at the course descriptions. Then, these courses were grouped according to functional and concentration areas. Functional areas, broadly categorized from the curriculum, consist of marketing, human resource, finance, facilities and systems, and information technology. Those offered by the hospitality undergraduate programme such as food and beverage, clubs, lodging, casino, events, and tourism and travel categorize the concentration areas. The courses offered under these categories were analysed and key skills, knowledge and competencies were developed as curriculum variables. Some general learning techniques from the curriculum such as experimental learning and application, experience-based learning and application, understanding current issues and practices in the hospitality industry were categorized under fundamental curriculum related skills.

From a general perspective, tourism programmes in Australia include economics, marketing, transport, planning, law, history, sports and recreation, environmental studies, socio-cultural studies, and information technology (Table 3). However, the range of tourism programmes in other universities varies significantly. The orientation of most tourism and hospitality programmes is from wider arts, social sciences, leisure or environmental studies to a general business degree though some may not show a

consolidated business degree. The actual proportion of tourism content also varies significantly from a minimum 1 course (6 subjects) to a maximum of 15 courses (more than 37 subjects) (Australian Education, 2005).

Table3: Australian Major University Tourism Courses and Programmes.

Region	Course Areas	Course Availability	Total No. Programmes
NSW	Tourism, Hotel & Resort, Club & Gaming, Sport, Indigenous, Environmental Management, Business in Tourism/Hospitality Management	Undergraduate Master/MBA PhD	9 (more than 31 subjects available)
VIC	Tourism and Hospitality Hospitality/Tourism, Management with Human Resource, Asian Studies/ Recreation, Business /Information Systems, Business Marketing	Undergraduate Master/MBA PhD	9 undergraduate courses
QLD	Tourism/Hospitality, Exercise Science, Leisure Management, Marketing, Restaurant and Catering, International Business	Undergraduate Master/MBA PhD	15 undergraduate courses

(Source: Australian Education, 2005)

The study by Chawla (2015) looked at “*Sustainability in hospitality education: A content analysis of the curriculum of British universities.*” The study investigated the curriculum of all the programmes despite broad differences in programmes as long as hospitality management was an essential component of the programme. The content analysis of postgraduate hospitality / tourism / events management courses, and the modules taught, yielded some very interesting findings. From 33 sampled university courses, 85% (n = 28) included sustainability as an integral component of the programme. The course on sustainability was offered as a core / compulsory module (n = 20 or 60%). According to these findings, it was evident that environmental literacy was gaining a prominent position in modern hospitality curricula. Findings represented a significant number of courses where sustainability was delivered as a stand-alone module (37%) which was an encouraging outcome because SE was embedded through other courses. This indicated a positive trend, and in some exceptional cases (n =5), sustainability was the overall context within which hospitality education was delivered. These results indicated a genuine

seriousness towards SE and showed that it was a prime element of tourism and hospitality education. This was an effective approach to environmental education.

Key courses taught under the broad umbrella of sustainability education. Figure 3 indicates six prime agendas, showing the pillars of SE at chosen universities.

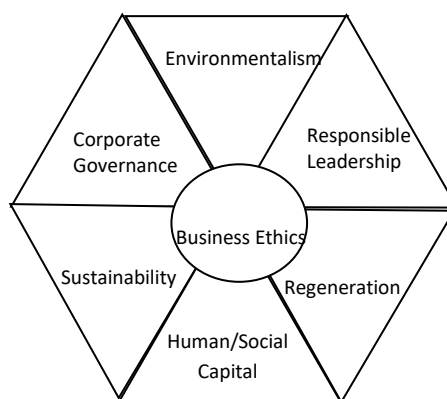


Figure 3: Six pillars of SE at British universities

(Source: Chawla, 2015)

Another study by Jurowski and Liburd (2001) indicated that environment or greening related topics were more prominent within the curricula from first year up to fourth year. This meant that there was a need for tertiary-education institution to embrace sustainability from a more holistic position unlike teaching simple components of the main topic. The topic was also approached from a leadership or management and governance perspective instead of green practices coming out as one and be emphasised to that effect. The findings were consistent given the vocational nature of hospitality education and this aspect of the curriculum is presumably industry driven. The results also indicated that the curricula were very fragmented.

A study by Herold (2015) stated that the modular design to assess modules incorporated within SE revealed that titles of modules were varied and distinct although three main thematic patterns emerged. Such modules were highly focused either on environmental or social issues of the environment which included pollution, garbage disposal, water treatment and environmental conservation. These course contents spread from the first year up to the final year and practicals were always done to make sure that the learners knew what they were to do in the industry. Therefore, SE was in many ways consistent with Elkington's Triple Bottom Line (1997). Further findings highlighted the complexity

of SE as a multi-dimensional concept. It was also observed that three universities delivered courses that were unusual in their approach highlighting interconnectedness, or a symbiotic relationship between the industry, human life and the environment.

The content analysis indicated the fact that the study adopted very different epistemological positions as far as SE was concerned. In a number of cases, sustainability was taught as a component of current / contemporary / critical trends. The analysis clearly demonstrated that hospitality and events courses were found lacking as far as adopting SE in the mainstream curriculum was concerned (also see Deale *et al.*, 2009). Table 4 contains results from Chawla's (2015) study.

Table 4: Modules taught under the sustainability context in universities in the UK.

Environmental	Social	Management
Climate Change	Human wellbeing / quality of life	Governance
Environmental management systems	Social cohesion	Sustainable Leadership
Environmental auditing	Equity	Moral decision making
Low carbon economy	Stakeholder support	Planning and policy (tourism)
Natural and ecotourism	Poverty alleviation	Stewardship
Environmental law	Community welfare	Sustainable product development
	Volunteering	Consultancy
		Strategic marketing

(Source: Chawla, 2015)

Table 5 below shows the methods of delivery of sustainability-related modules. Courses selected in this sample reflected a wide variety of approaches adopted towards SE in UK universities.

Table 5: Methods of delivery of sustainability-related modules in the UK.

	Method	Frequency	Percentage distribution of cases
1.	Sustainability taught as a stand-alone module	12	37
2.	Integrated into other modules	11	33
3.	Taught as a stand-alone module, but also integrated into other courses	5	15
4.	Taught as an entire course / discipline	5	15
	Total	33	100

(Source: Chawla, 2015)

Chawla and Manhas (2015) did another sustainability study. The study looked at sustainability in Higher Education and was an exploratory investigation of hospitality management courses. The results of this study established that the respondents viewed sustainability as an important, although abstract and complex research area. Furthermore, results also reflected a very positive development that sustainability was finding its place in mainstream hospitality curricula, rather than being seen only as an interesting alternative. There was also greater effort on the part of curriculum planners and developers to integrate sustainability throughout the courses. The study argued a strong case in favour of ESD by establishing that effective sustainability curricula can indeed impact on behavioural intentions positively. It has been argued that such curricula can only be effective if sustainability is integrated through all aspects of the curricula, the contents should spread to every semester and a full course of green, and SE should be designed to ensure all students have the latest knowledge. This was a significant outcome, implying that hospitality management curricula needed a fundamental change to embrace sustainability and green practices throughout the course. Another significant contribution this study made was to conclude that the mode of delivery of SE profoundly impacts on students' learning and attitude towards this all-important agenda. The study was therefore a call for considering innovative methods of integrating sustainability with traditional hospitality curricula.

A study carried out by Chen and Chang (2012) investigated the advantages of green management for hotel management in Taiwan. They interviewed senior hotel managers from two hotels. The findings revealed a reduction of operating costs after the implementation of green management practices. They found that hotels benefit from green management in terms of gaining an enhanced reputation and attracting quality customers. The study concluded that hotels could achieve the standard of green business through examining five key areas such as green purchase, environmental policy, management system, employee education and consumer education respectively. This study did not develop a framework for the hospitality teaching and learning curriculum in the *Zambian* community.

Another study was carried out by Bohdanowicz *et al.* (2011) to evaluate and analyse Hilton's 'We Care Programme' to improve environmental performance of Hilton hotels in Europe. The research assumed a case study analysis. It explored the practical dimension of greening hotel operations in the context of corporate social responsibility (CSR). The main premise and effects of Hilton's We Care Programme was reducing resources use while at the same time enhancing guest experience and gaining employee loyalty. The study further found that the colleges, which trained environmental specialists in the hospitality, did not have green and sustainability knowledge. This raised curriculum challenges which this study will investigate in the *Zambian* context.

(b) Studies At Regional Level

Several studies have reported on aspects of green concepts and practices, which can be integrated into curricula of training institutions at a regional level. Wade (2014) in Ghana conducted a study on curriculum inclusion for the hospitality industry trainee. The study observed that students did possess tacit knowledge about sustainability discourse through exposure to media or peer pressure for instance, but it was for tertiary education learners to make a real difference and act as agents of change. The study further stated that the colleges had topics spread across the curriculum in different subjects, which referred to green concepts, and such topics did not come out as stand-alone topics on green concepts. As a result, the students did not realise that their curriculum had such topics, which they learnt. In addition, the study noted that the green aspects were too shallow to be

considered as curriculum content as they never brought about significant change in the industry and practices hence the participant thought they never learnt them.

In Zimbabwe and Kenya, both developing countries, tourism employers often recruited and promoted diploma holders and non-tourism than degree graduates (Dale & Robinson, 2011). This indicates the gaps that were there between the industry and higher education institutions and such an occurrence shows a waste of human and educational resources. A study conducted by Mayaka and King (2002) in Kenya indicated considerable convergence between the perceptions of industrial experts and education providers in connection with quality gaps in the creation of skills or competencies. A number of systematic training shortcomings were identified including curriculum inconsistencies and inadequate development and enhancement of workplace skills. Zimbabwe and Kenya could also be facing similar imbalances holistically in the scope of tourism and training together with its relevance to the tourism industry and graduate expectations. “There has also been a scarcity of empirical evidence on Zimbabwe tourism education in general and in particular the Bachelor of Technology in Tourism and hospitality (BTHT) programme on the extent to which their content and delivery has been effective in delivering has been effective in developing graduates’ competencies for the workplace and hence enabling them to instigate change” (Dale & Robinson, 2011: 21).

South Africa has embarked on the National Commission for Co-operative Education, which is referred to as Work Integrated Learning (WIL) and is a strategy for trying to blend together the theory and the highly productive work experience in an area, which is almost similar to student’s academic and vocational objectives. The primary purpose of this is to encourage students to have a good vision overall process as this will strengthen their employability status after completion of the tourism and hospitality courses (Nicolaidis, 2015). “The National Commission for Co-operative Education came up with WIL programme since they felt that the tourism and the hospitality employers have raised a concern to say that students from different tertiary institutions that have studied tourism and hospitality courses are not effective enough to secure jobs in the tourism and the hospitality industry. Therefore, the National Commission for Co-operative Education in South Africa have appealed higher education institutions to produce more employable graduates” (Nicolaidis, P2).

A study conducted by Abomeh (2012) in Nigeria recommended that the public and private bodies in the tourism and hospitality sector should be actively engaged in human resource training and development so that the industry function with enough supply of skilled and understanding manpower to encounter the present and the future challenges in the tourism and hospitality sector in developing countries. Abomeh further stated that the tourism and hospitality stakeholders fail to advise or to encourage on some certain issues such as training in tourism and hospitality education. However, Abomeh (2012) argued that a number of hospitality stakeholders in Nigeria do give training an attention which could have made them professionals. Insufficient work force in tourism and hospitality training contributes barriers to the development of hospitality education hence there is a lot of unqualified hospitality education especially in academic qualification.

Manono *et al.* (2013) indicated that, although Kenya had not been able to be successful on the training needs because of its limited capacity, the Kenyan government had long formed a joint programme with the Swiss government in 1975 on tourism and hospitality courses, and these courses included accommodation, travel, and tour operating sectors. This collaboration was to ensure that the country included the local needs in the curriculum so that the local culture is preserved and conserved to this effect. The new curriculum had cultural knowledge on how to protect certain trees, rivers, shrubs and animals so that there was animal human conflict. The local tour operators ended up employing the local people with local knowledge to blend with the graduates so that the industry can be a good source of knowledge from the education and community point of view.

The Kenyan and the Swiss governments formed the partnership with the aim of introducing their students to the international market (Manono *et al.*, 2013). The argument by Deale *et al.*, (2009) is in line with the points raised above that continued sustainability of the tourism and hospitality industry is dependent on qualified professionals who can accept sustainable development principles as part of their management values. Although inclusion of the sustainability agenda within hospitality curricula makes good sense, as it is widely perceived as the way business will be done in the 21st century.

In South Africa, Van der Merwe and Wocke (2007) carried out a study to investigate responsible tourism practices in South Africa's hotel industry. The findings revealed that

many hotels were not participating responsible tourism initiatives that adapt to the green initiatives and climate change. This was mainly because of lack of awareness of such initiatives and that the curriculum through which the employees underwent did not equip them with such knowledge. In that study, it was suggested that additional research be carried out to establish why there was lack of participation in responsible tourism initiatives in hotels in South Africa. However, this study will explore how the green initiatives can be merged into the teaching curriculum for the students to have such knowledge.

In Zimbabwe, a study was carried out by Zengeni *et al.* (2013) to determine possible relationships of green management and operating costs. The study looked at practices in hotels and their effect on operating costs and awareness levels in employees on the subject. The study revealed that there is both negative and positive relationship between green management and operating costs and that employee awareness is important in the greening process and in controlling costs. The study under review did not consider exploring the curriculum which institutions use to train students in green practices which this study has investigated.

Participants in a study conducted by Mwendwa (2017) in Tanzania recommended that what should be added were practical topics and hands on activities, sustainable utilization of natural resources, and culture and beliefs contexts in environmental management. A similar study conducted by Kimaryo (2011) found that environmental education in Tanzania lacked practical and applied skills that connected with classroom knowledge. Therefore, Mwendwa was of the view that research on teachers' environmental literacy level could be a good basis for planning both pre-service and in-service courses for teachers.

In a study conducted by GUNi, IAU and AAU (2011), respondents identified a number of courses essential to sustainable development but which were not being offered by their institutions at the time of the study. The courses are categorised and presented in Figure 4, while those that could not be categorised are classified as "others".

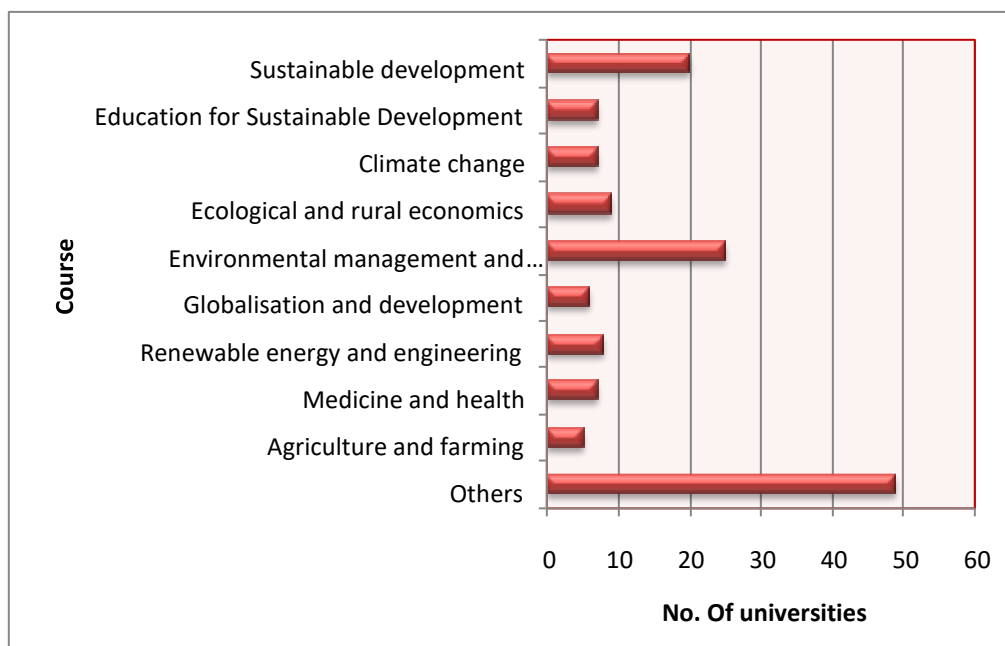


Figure 4: Essential sustainability and sustainable development course currently not being taught.

(Source: GUNi, IAU and AAU, 2011, p. 37)

(c) Studies at Local Level

A survey shows a paucity of literature on aspects of green concepts and practices which can be integrated into curricula at a local level. However, documents prepared by TEVETA have chronicled the developments in the integration of sustainability in its institutions of learning. According to TEVETA (2012), the Government of the Republic of Zambia has in the past embarked on major reforms to review the Technical Education and Vocational Training (TEVT) in order to make it more responsive to the current training demands in the economy. In August 1994, the Minister of Science, Technology and Vocational Training appointed a widely representative national Task Force to review Government policy on technical education and vocational training and to recommend changes that would be necessary for the training system to meet new and emerging challenges in the national economy and society in general. It is a known fact that until then, no serious attempt had been made to undertake such an exercise since the existing policies were formulated in 1968. In the meantime, the defining characteristics of the national economy and demographic patterns had both changed very significantly from the conditions under which the previous policies had been formulated. In spite of some attempts by the Department of Technical Education and Vocational Training to respond

to the changing environment, the underlying policies and structures of the training system were clearly out of step with the dynamic demands and requirements of the country.

The Task Force submitted its recommendations in January 1995 and soon after the Government issued a new policy on Technical Education, Vocational and Entrepreneurship Training by enacting a law, the TEVET Act No. 13 of 1998 read together with TEVET (Amendment) Act No. 11 of 2005 which led to the establishment of the Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) whose responsibility is to interpret and implement the TEVET policy. The new policy has a broader emphasis than the previous one which almost exclusively catered for the needs of formal sector employment. The policy declares, in general terms, Government's intention to develop a system of Technical Education, Vocational and Entrepreneurship Training, (or TEVET), that could satisfy the real demands and requirements of the labour market and socio-economic conditions, all of which were recognized to be in a state of constant change (TEVETA, 2007). An Act to establish the Zambia Institute for Tourism and Hospitality Studies and provide for its functions; provide for the development of human resource in the tourism sector through academic and professional development, skills training, research and consultancy; and provide for matters connected with, or incidental to, the foregoing (Zambia Institute for Tourism and Hospitality Studies Act No 42, 2016). The Technical Education, Vocational and Entrepreneurship Training Authority (TEVETA) in accordance with the provisions of the Technical Education, Vocational and Entrepreneurship Training (TEVET) Act Number 13 of 1996 Part IV section twenty notices that all tourism and hospitality training institutions in Zambia are registered, regulated, certified and examined by TEVETA.

3.2.4 Framework Which Could Be Used to Integrate Green Concepts and Practices into Curricula

A curriculum framework can be developed to guide institutions in developing relevant and responsive curricula. This section reviews literature on various endeavours to develop curriculum frameworks at global, regional and local levels.

(a) At Global Level

Several projects have been undertaken to develop curriculum frameworks across the world. Holdsworth and Thomas (2015) developed a framework for the integration of ESD in the curricula of Australian universities. They first identified barriers to the adoption of ESD and built on past experience with curriculum change to introduce ESD into two discipline fields. Using an action learning approach, where academics were involved in audits of their courses/subjects, workshops and renewal of their curricula, this project led to new and revised courses and more capable academic staff. From the experiences of the project, a framework was developed to guide universities who were seeking a process to implement ESD.

Another endeavour at producing a curriculum framework was carried out by Fuertes-Camacho et al. (2019). They came up with a framework for integrating sustainability into the curriculum in the third year of the degree in Early Childhood Education at the Universitat Internacional de Catalunya (UIC) in Spain. They applied a global and systemic approach to solving socio-environmental problems and to check whether education for sustainable development (ESD) helps to develop and encourage actions that promote sustainable development. Quantitative research was conducted using a pre-test/post-test quasi-experimental design separated by a period of didactic training in the project method. The results showed that the students' sustainability competencies (SC) improved after working on didactic proposals in a global manner. It was concluded that elaborating competencies in education for sustainable development enables an integrated approach of knowledge, procedures, attitudes and values in teaching through promoting the project method in multidisciplinary and transdisciplinary teams, which enhances future teachers' sustainability competencies.

Chinedu, Saleem, and Muda (2023) undertook a study in Malaysia to propose a curriculum framework for sustainability literacy for technical and vocational teacher training programmes. They argued that although TVET teacher training programmes in Malaysia had been vastly proficient in developing vocationally competent teachers and workers, there remained uncertainty regarding the extent to which these vocational teaching professionals had been trained to develop sustainability competencies and literacies. Using a modified Delphi method (MDM) consisting of 15 expert participants

from Asian-Pacific countries, four important curricular elements for sustainability literacy were identified and defined. These included the learning outcomes for sustainability literacy, teaching competencies for sustainability literacy, pedagogical approaches to foster effective teaching and learning for sustainability, as well as ESD integration strategies. The specific indicators within this curriculum framework were also defined. The study concluded with vivid implications for practice within TVET teacher training programmes in realising Goal 4 of the United Nations Sustainable Development Goals (SDGs).

In Guatemala, Hartwig (2021) used the innovative, context-responsive approach to integrated, ecology-based curriculum design with a sustainability-focused pre-K–12 school. A participatory methodology was implemented to aggregate and democratically reflect the viewpoints of multiple stakeholders – including students, teachers, and families directly involved in the school, as well as actors in environmental regeneration and conservation-driven change in Guatemala, a national environmental education policy, and the UN Sustainable Development Goals. The result is a leading example of teacher-empowered, ecology-based curriculum that responded to the local context of the school and was, therefore, inherently more sustainable.

Cole (2019) developed a tool, which could be used to help STEM educators incorporate green building themes into the science classroom. She noted that green building education is an expanding frontier for STEM education and can create opportunities to integrate science and environmental literacies into the study of everyday environments. The educational tools for connecting green buildings and science education were made through a multi-step process. An interdisciplinary literature review yielded a series of frameworks that were improved through two focus groups with science and environmental educators and built environment professionals. The result of this process is a toolbox of conceptual frameworks for educators interested in using a systems-based approach to teach about green buildings as sites for complex interactions between human activity and Earth systems. Although this study was only on green buildings, it helped this study to understand the many ways that can be used to develop a curriculum framework.

Chen, Jeronen and Wang (2020) undertook a study to identify suitable pedagogical approaches to teaching and learning green chemistry among college students and

preservice teachers by examining the teaching methods that have been used to promote green chemistry education (GCE) and how these methods have supported green chemistry learning (GCL). They found 45 articles published in peer-reviewed scientific journals since 2000 that specifically described teaching methods for GCE. The content of the articles was analyzed based on the categories of the teaching methods used and the revised version of Bloom's taxonomy. Among the selected articles, collaborative and interdisciplinary learning, and problem-based learning were utilized in 38 and 35 articles, respectively. These were the most frequently used teaching methods, alongside a general combination of multiple teaching methods and teacher presentations. Developing collaborative and interdisciplinary learning skills, techniques for increasing environmental awareness, problem-centered learning skills, and systems thinking skills featuring the teaching methods were seen to promote GCL in 44, 40, 34, and 29 articles, respectively. The results showed that the integration of green chemistry teaching (GCT), for example, with sustainable education, promoted GCL by fostering environmental consciousness and behavioral change and cognitive processes in a sustainable direction. The importance of Chen *et al.*'s study to the current study is that, although Chen's study focused on methodology, which can be used to teach sustainability, the current study focused on the content that can be taught in training institutions. Chen's study shows that it is possible to identify key elements, be it methods or content, and use them to draw a teaching framework.

(b) At Regional Level

Some of the work done at a regional level in the area of curriculum framework includes the study done by Atuhurra and Alinda (2017). Atuhurra and Alinda adapted the Surveys of Enacted Curriculum framework to analyse the content embedded in the primary school curricula in East Africa, particularly in Uganda. The Surveys of Enacted Curriculum approach is used to analyse and report on the academic content embedded in education instructional components such as curriculum standards, assessments, and teachers' classroom instruction. In their study, Atuhurra and Alinda developed subject taxonomies for Mathematics and English – the two main learning areas at lower primary school level in Uganda – and analysed the distribution of relative emphasis on content that is embedded in the thematic curriculum. They found that the lack of nationally agreed well thought subject-specific comprehensive taxonomies was manifested in form of content

coverage inconsistencies which hindered achievement of planned progressive learning across grades. Again, this project shows that constructing a curriculum framework can help to resolve issues surrounding curricula.

Christmals and Armstrong (2020) conducted a study titled “*Curriculum framework for advanced practice nursing in sub-Saharan Africa: a multimethod study*” They assert that the implementation of advanced practice nursing (APN) programmes in sub-Saharan Africa (SSA) had been difficult due to lack of SSA-specific curriculum frameworks or benchmarks to guide institutions in developing and implementing APN programmes. According to Christmals and Armstrong, a few APN programmes in SSA were benchmarked on western philosophy and materials, making local ownership and sustainability challenging. They, therefore, developed an SSA-specific concept-based APN (Child Health Nurse Practitioner, CHNP) curriculum framework to guide institutions in developing relevant and responsive APN curricula in order to qualify CHNP and contribute to a decreased incidence of preventable deaths of children in the SSA region. An evaluation of this framework showed that it was detailed, evidenced-based and could be adapted for other APN specialty areas. The lesson from this study is that, although the curriculum framework developed by Christmals and Armstrong addressed training of nurses, the principles used in coming up with the framework for the integration of green concepts and practices into curricula for tourism and hospitality training institutions are the same.

(c) At Local Level

Perhaps one of the reasons that there has been more awareness rather than action about greening in the hotel industry in Zambia is because there has not been a clearly articulated framework for the integration of sustainability in the curricula. Since there is no curriculum framework specific to tourism and hospitality training, we can learn from other frameworks, which have been prepared in Zambia. One of the most well-known curriculum frameworks in Zambia is the Zambia education curriculum framework 2013, prepared and published by Curriculum Development Centre (CDC, 2013). It was developed through a consultative and participatory process over a period of four years. Of interest is the idea that the framework was developed to provide guidance on the *preferred type* of education for the nation. This is the gist of the current study, to show

how desirable content on sustainability can be integrated in the curricula of tourism and hospitality training institutions. The role of a training institution is to ensure that students become both knowledgeable and capable.

3.3 Knowledge Gap

The knowledge gap arises in the sense that all the studies reviewed are different from the present study in various aspects and respects, i.e. the subject matter, participant's characteristics, location, methods and context are not directly replicated in any of the reviewed works. Although many studies have been conducted involving the notions of integration of green concepts and practices, none of them was on integration of green concepts and practices in tourism and hospitality industry in Zambia. This supports the fact that this study is potent, has knowledge to contribute in the training programmes in tourism and hospitality sector, and identifies the knowledge gap that this study sought to fill.

3.4 Chapter Summary

The chapter has reviewed literature on green aspects and sustainability integration into the curriculum of the tourism and hospitality industry. Greening is defined as pursuing knowledge and practices conducive to more environmentally friendly and ecologically responsible decisions and lifestyles. Such knowledge and practices can help protect the environment and sustain its natural resources. Additionally, I have defined sustainability as ideas, aspirations and values that continue to inspire public and private organisations to become better stewards of the environment and that promote positive economic growth and social objectives. These are the issues, which should be integrated in the curricula of tourism and hospitality training institutions. Gaps in the literature have been identified which this study endeavored to fill. The next chapter presents the research methodology.

CHAPTER FOUR: METHODOLOGY

4.0 Introduction

This chapter outlines both the methodology and the methods used in the study, explaining their usability and usefulness. Methodology gives a vision to what the research should involve. Methods, on the other hand, are a set of procedures and techniques used for gathering and analysing data. Through the methods, the researcher sees the ordinary and is able to arrive at new understandings of social life (Strauss & Corbin, 1980). It discusses the research paradigm based on the nature of the research questions. Further, it describes the research approach, the research design, the target population, and the sample and sampling techniques. Furthermore, research instruments used and the data collection and analysis procedures are described. Explanation on how issues of trustworthiness, reliability and validity, and ethical issues is also included. Conclusion of the chapter is also provided.

According to Tivakoli (2012), the term ‘paradigm’ is used very widely and loosely to refer to a conceptual framework of beliefs, theoretical assumptions, accepted research methods, and standards that define legitimate work in a particular science or discipline. Tiyakoli adds that paradigms function as maps or guides for scientific communities, determining important problems or issues for its members to address and define acceptable theories or explanations, methods and techniques to solve defined problems. These frameworks are shaped by each researcher’s view of the world and are also informed by how other academics conceptualise research. In the social sciences, a number of generally accepted models have been developed that articulate these conceptual frameworks and they are called paradigms. They are often distinguished by their beliefs about ontology (‘what is reality?’), epistemology (‘what is knowledge?’) and axiology (‘is truth value-free or value-laden?’). These three basic beliefs or concepts define a particular research paradigm and influence the researcher’s choice on how to conduct the study with regards to research formulation (Guba & Lincoln, 1994).

The ontological philosophy is concerned with the nature of reality (Aliyu, Singhry, Adamu & Abubakar, 2015). It requires researchers to ask themselves how they think the world operates, how society is constructed and how this influences everything around them. Ontology talks about the difference between reality, our perception of reality and

how this influences people's behaviour (Phillimore & Goodson, 2004). In this study, the ontological position helped me to make assumptions about the nature or essence of the phenomenon I was investigating, and also to make decisions about the methodologies to choose for the study.

Epistemology refers to the assumptions we make about the kind or the nature of knowledge, or how it is possible to find out about the world (Hofer & Pintrich, 1997; Crotty, 1998). It asks us to define what acceptable knowledge about your field of research is and what information is known to be true due to rigorous testing and treated as fact. This philosophy is most commonly used in scientific research as it searches for facts and information that can be proved without doubt rather than changeable situations and opinions (Rule & John, 2011). For this study, epistemology was important because it helped me to establish the kind of data to collect and how to go about collecting the data. Concerning axiology of a paradigm, Kivunja and Kuyini (2017) explain that,

axiology refers to the ethical issues that need to be considered when planning a research proposal. It considers the philosophical approach to making decisions of value or the right decisions (Finnis, 1980). It involves defining, evaluating and understanding concepts of right and wrong behaviour relating to the research. (p. 28)

Going by this definition of axiology given by Kivunja and Kuyini, the importance of axiology to this study was that it allowed me to understand and recognise the role my own values and opinions played in the collection and analysis of data. Further, it also helped me to understand the importance of ethical considerations in research since research ethics is a core aspect of the research work (Bryman & Bell, 2007; Saunders, Lewis & Thornhill, 2012).

4.1 Philosophical Orientation Used

Of the three main philosophical positions (that is, positivism, interpretivism and pragmatism, this study used the pragmatism position for reasons that will be explained in this subsection.

Since both positivism and interpretivism have a mono-paradigmatic orientation, scholars and philosophers have argued that they cannot ably represent reality. According to Kivunja and Kuyini (2017),

philosophers (such as Alise & Teddlie, 2010; Biesta, 2010; Tashakkori and Teddlie, 2003a, and 2003b; Patton, 1990) have argued that it was not possible to access the 'truth' about the real world solely by virtue of a single scientific method as advocated by the positivist paradigm, nor was it possible to determine social reality as constructed under the interpretivist paradigm. For them, a mono-paradigmatic orientation of research was not good enough. (p. 35)

This study, therefore, used the pragmatism paradigm because it allowed the researcher to use both the positivist and interpretivist approaches in order to understand the problem. The approach gave this researcher a freedom of choice of methods, techniques and procedures (Powell, 2001; Creswell, 2003; Creswell, 2009). Since pragmatism opens the door to multiple methods, different worldviews and assumptions as well as different forms of data collection and analysis, the researcher had to fall on mixed methods research to conduct a cohesive and sound research (Parvaiz, Mufti, & Wahab, 2016). Pragmatism has been hailed as the foundation of mixed methods research (MMR) since it embraces both positivism and interpretivism as the mode of enquiry (Johnson, Onwuegbuzie & Turner (2007; Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009).

The rationale for using the mixed methods approach in this study is that the approach combines the strengths of the quantitative and qualitative methodology, stemming from positivism and interpretivism, respectively, to produce a comprehensive and broad-based research in a pragmatic manner (Romm & Ngulube, 2015). The mixed methods approach uses the double strength of the narratives and numbers to enhance validity and reliability of the findings. The investigator gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two and then draws interpretations based on the combined strengths of both sets of data to understand research problem (Creswell, 2015). Vogt (2007) states that:

If you conduct a survey, you can ask your respondents open-ended questions about public policies that require them to write paragraphs and that require you to use qualitative techniques to analyse the paragraphs; or you could ask respondents to rate public policies on a scale from 1 to 10 and then use quantitative techniques to tally and analyse the results. (p. 8)

The pragmatism paradigm is informed by the ontology of pluralism, the epistemology is both objective and subjective, the approaches are exploratory, explanatory and embedded, and the axiology is value-laden (researching that benefits all individuals by addressing their diverse views) (Kigozi, 2020). Johnson and Onwuegbuzie (2004, p. 16) assert that “pragmatism ... helps shed light on how research approaches can be mixed fruitfully; the bottom line is that research approaches should be mixed in ways that offer the best opportunities for answering important research questions.” This nature of pragmatism further gives the paradigm the capacity to solve human problems since the problems are neither purely positivist nor interpretivist but both (Rorty, 1989; Stich, 1990; Powell, 2001). The position was attractive to the current study which sought to explore the possibility for integrating green concepts and practices into the curricula of tourism and hospitality training institutions of Zambia in order to solve issues of poor knowledge and lack of skills on sustainability among workers in the tourism and hospitality industry.

The study used mixed methods approach in this study because it is deemed to be appropriate since it enabled me to collect both quantitative and qualitative data on the integration of green concepts and practices in the curricula of the tourism and hospitality training institutions in Zambia used and how they suited the purpose. I contend that, by combining qualitative and quantitative data in this study, an overall or negotiated account of the findings was made possible, a matter which cannot be forged by using a singular approach (Bryman & Bell, 2007). Principally, there were forms of triangulation which I dealt with in order to suggest a better model for integrating green concepts and practices into the curricula of tourism and hospitality training institutions of Zambia. Javed (2021) explains that, when conducting a mixed research, different methods and data sources are used to examine the same phenomenon. Jared further states that triangulation makes it possible to identify aspects of a phenomenon with greater precision by approaching it from different points of view.

Although MMA has the advantage that it forestalls the weaknesses of using a singular positivist or interpretivist approach (hence making its findings robust), the approach also has its own shortcomings. Driscoll *et al.* (2007) contend that “the analytic process of combining qualitative and survey data by quantitising qualitative data can be time consuming and expensive and thus may lead researchers working under tight budgetary or time constraints to reduce sample sizes or limit the time spent interviewing.” This study

may also have fallen under the same trap. This weakness was solved by collecting and analysing both qualitative and quantitative data concurrently.

4.2 Research Design

A research design is the blueprint for the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose (Tavakoli, 2012). This study used the concurrent or convergent mixed methods design. This entails that both the quantitative and qualitative methods were applied at the same time, rather than sequential where quantitative and qualitative methods are applied one after the other. Using this design permitted the researcher to collect both qualitative and quantitative data simultaneously, compare them, and then use the integrated results to provide answers to the research questions (Creswell, 2012). The procedure followed is presented in Figure 7. Concerning the emphasis of approaches, qualitative methods and quantitative methods had the same importance; none of them prevalence over the other.

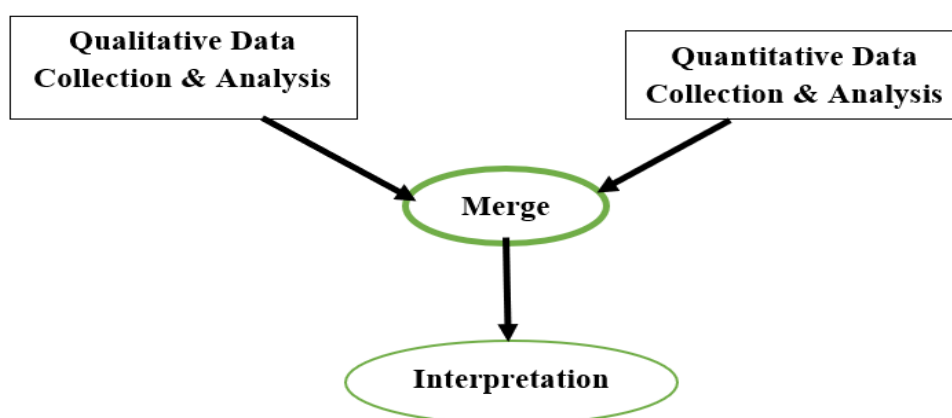


Figure 5: The convergence design.

(Source: Creswell, 2012; Barnes, 2019)

My intention for merging the results of the qualitative and quantitative data analyses was to obtain a comprehensive picture of the problem and bring out a curriculum. This is because qualitative and quantitative data provided different insights and their combination contributed to seeing the problem from multiple angles and also multiple perspectives. Using the convergent design, quantitative results yielded general trends and relationships while qualitative results provided in-depth personal perspectives and

opinions of individual institutions and individual students and lecturers as to how they were integrating green concepts and practices into the curricula of tourism and hospitality training institutions in the country. Both are equally important and their combination added up to not only more data but a more complete understanding than using only one approach. This enabled the research to even validate one data base with the other.

It should be noted that all research methods and designs have strengths and weaknesses. Therefore, combining the two methods provides a good rationale for using a mixed method for this study (Rossman & Wilson, 1985). The design also helped the study to use different research instruments which merged the findings in the findings chapter. Through this design, the research problem was exhaustively explored from all angles. The convergent design was appropriate for this study because the research questions were supposed to be explored from two fronts: the curriculum perspective and the implementation perspective so as to bring about a new model with integrated ideas on how to implement green concepts and practices into the curricula of selected tourism and hospitality training institutions of Zambia. However, as I have indicated earlier on, mixed research suffers from some disadvantages. Jared (2021) posited that some of the problems of the approach are that the research method can be very complex, combining two paradigms; much more time and resources are required to plan and implement this type of research; it can be difficult to plan and apply one method using the results of another; and how to resolve discrepancies that arise in the interpretation of the results may be unclear. I overcame these challenges by ensuring that I had a big number of participants in the quantitative approach.

4.3 Target Population

Scholars have defined a target population as an entire group of people, events or objects which has common desirable characteristic, from which a sample to be used in the study is taken from, and to which researchers are interested in generalising their results (Mugenda & Mugenda, 1999; Creswell, 2005; Kombo & Tromp, 2006). In this study, the target population comprised all the 10 tourism and hospitality training institutions that were offering tourism and hospitality training at the time of data

collection and all the students and lecturers in those institutions. All the ten institutions were located in the Lusaka district of Zambia.

4.4 Sample Size

In this study, the sample comprised a total of 220 participants drawn from 10 tourism and hospitality training institutions which were offering tourism and hospitality programmes during the time of data collection. The participants included one manager and one head of department (HOD) in each of the 10 institutions, 40 lecturers (four from each institution) and 160 learners (16 from each institution). The sample selected was adequate for both qualitative and quantitative (descriptive) analysis. This is because there was no need to calculate statistical power, as would be required in a rigorous quantitative study. The goal was not to have a very large sample size but, rather, the study sought an in-depth and detailed understanding of the matter at hand (DeJonckheere & Vaughn, 2018).

4.5 Sampling Procedures

In order to yield the number of participants required for the study, I had to conduct several procedures. To start with, census method (or complete enumeration survey method) to select the tourism and hospitality training institutions was used. The Economic Commission for Europe of the United Nations (UNECE, 2000) defines a census as a survey conducted on the full set of observation objects belonging to a given population or universe; it is the complete enumeration of a population or groups at a point in time with respect to well defined characteristics: for example, population. The Encyclopedia of Survey Research Methods defines a census as an attempt to list all elements in a group and to measure one or more characteristics of those elements (Lavrakas, 2008). A census was made necessary because there were very few institutions in the country that offered training in tourism and hospitality at the time of the study. Additionally, all of them were located in Lusaka. The rationale here was that census or complete enumeration was possible because the population of study was manageable.

Sampling techniques to select participants within the 10 training institutions was then used. In order to come up with the right sample, I applied purposive and random sampling techniques. Purposive sampling, a non-probability sampling technique, was used to identify and select information-rich participants related to the phenomenon of interest

(Palinkas *et al.*, 2016). These were trainers (lecturers, heads of department and managers). Palinkas et al further noted that combining sampling strategies may be more appropriate to the aims of implementing research. This was very true for this study, considering that a mixed methods approach was used. Therefore, the study also used simple random sampling (a probability sampling technique) to select the 160 students. Using probability simple technique sampling gave all the students in the 10 training institutions an equal chance of being selected.

4.5.1 Purposive Sampling

Cohen et al. (2014) state that purposive sampling involves researchers handpicking the cases to be included in the sample based on their judgment of their typicality or possession of the particular characteristics being sought. The power of purposive sampling lies in selecting information-rich cases for in-depth analysis related to the central issues being studied (Orodho & Kombo, 2002). Purposive sampling was used to select the managers and the heads of department from the tourism and hospitality training institutions. Expert purposive sampling was used to select them based of their experience and knowledge of teaching in these institutions. The two lecturers per training institution were recommended by their heads of department. These participants provided information related to integration of greening topics in the curricula. Additionally, they are the ones who implemented the curricula hence, they either supervised the teaching or taught the aspects which this study was looking at and for. The total number of participants who were purposively sampled was 20 (Table 7). I interviewed one manager and one head of department or section from each institution, except for Dzithandizeni Trust Trades School where I only interviewed one HOD, and the Zambia Institute for Tourism and Hospitality Studies where I interviewed one manager and two HODs. This discrepancy was because of the differences in the sizes of the training institutions mentioned; Dzithandizeni Trust Trades School had a small number of lecturers while Zambia Institute for Tourism and Hospitality Studies had a large number of lecturers.

Table 7: Purposively sampled participants per institution.

S/No	Institution	No. of Managers and Heads of Departments Sampled
1	1	2
2	2	2
3	3	2
4	4	1
5	5	2
6	6	2
7	7	2
8	8	2
9	9	2
10	10	3

4.5.2 Simple Random Sampling

Msabila and Nalaila (2013) assert that probability or random sampling techniques are those where the selection of individuals for the sample gives all the individuals in a population an equal chance of being selected for the study. In relation to this study, simple random sampling techniques were used to select student participants. Students were sampled using a raffle draw. In each institution, students were asked to pick a piece of paper from a box which was placed in their classroom. Students who picked a piece of paper where 'YES' was written participated in the study while students who picked a piece of paper where 'NO' was written did not participate in the study. Using this sampling technique (lottery sampling), each institution provided 16 students who took part in the study. This technique gave the study a total of 160 students.

4.6 Data Collection Instruments

To conduct this study, the researcher had to use different instruments of data collection. These instruments included an interview guide, a semi-structured questionnaire, and a document analysis checklist.

4.6.1 Interview Guide

The researcher used an interview guide because of its inherent characteristic to help an interviewer focus their search for information on the most appropriate candidates and gain the most relevant information from each interview. The interview guide targeted the Heads of Department and managers of training institutions. The open-ended questions sought to elicit information about the extent to which green concepts and practices were integrated in the curricula of training institutions and the understanding of the green concepts and practices. Apart from specifying what types of questions were to be asked during the interviews, the researcher found the interview guide useful because it also standardized the interview process, ensuring that every participant got the same opportunity to describe their skills and experience.

4.6.2 Semi-Structured Questionnaire

Semi-structured questionnaires were administered to lecturers and students. For lecturers, information was elicited on areas of specialisation, skills possessed, and experience. Questions also asked about the lecturers' understanding of green concepts and practices. Students were asked about the programmes that they were pursuing, their knowledge of green concepts and practices, and what topics needed to be integrated in the curricula. The instrument was useful to the study because it enabled the researcher to collect a mix of qualitative and quantitative data. Additionally, the semi-structured questionnaire provided the structure that allowed the researcher to make comparisons between the different responses and the flexibility to adapt the discussion along the way, to suit the individual participant and the answers being given, and to ask follow-up questions.

4.6.3 Document Checklist

The document checklist was used to check for the presence of green concepts and practices in the curricula. The checklist was used because it provided a systematic list of the topics that the researcher was looking for in order to ascertain the presence (or absence) of green concepts and practices in the curricula. The instrument ensured that the researcher forgot no significant parts of the investigation. Conducting a document analysis has an added advantage that it also reduces some of the ethical concerns associated with other qualitative methods.

4.7 Data Collection Procedures

This section outlines some of the actions that the researcher undertook during the data collection process. Approval was sought from the Assistant Dean, Postgraduate Studies in the School of Education at the University of Zambia. I obtained a letter to allow me to collect data. I also obtained Ethical Clearance from the School's Ethical Committee (Appendix VI). Furthermore, permission was obtained from the heads of each training institution that the researcher went to collect data from.

4.7.1 Conducting of Interviews

Once approval was given, the researcher proceeded with data collection. I started with interviewing the head of the institution, and then the head of department or section. For each participant, the researcher started the interview by introducing herself and explaining the nature of the interview (that is, the information to be collected was for academic purposes only). Thereafter, the researcher explained the format and the expected length. The researcher then transitioned to information-specific questions. The interviews were audio-recorded upon getting permission to record the interviews. The participants were then given time to ask questions about the matters which were not clear to them. The researcher concluded each interview by thanking the participants before going away.

4.7.2 Administration of Questionnaires

Paper-based questionnaires were administered to lecturers and then the students in the various institutions. Although the questionnaires were administered to participants in person, the participants answered them at their own time. Like in the case of interviews, the researcher explained that the study was for academic purpose only. The researcher requested the participants to be honest and to contact her if they needed clarification on any of the questions. To close, the researcher thanked the participants for their time. After an agreed period, the researcher visited the participants again to collect the completed questionnaire.

4.7.3 Administration of Document Analysis Checklist

Concerning the document analysis checklist, the researcher obtained official curricula documents from different tourism and hospitality training institutions in Lusaka. A review

of the entire curricula and all other relevant documents was then done to gain proper understanding of the content of the documents. This method was important because it enabled the researcher to physically check the curricula for content related to greening. Based on this analysis, a decision was made as to whether content related to greening was integrated or not. The parameters used were existence of green concepts and practices, the extent to which green practices were integrated, as well as reasons for not integrating best practices. In using document analysis, the researcher assessed the extent to which green concepts and practices were integrated into the curricula of training institutions. Drawing on guidance from Dalglish, Khalid, and McMahon (2020), I used the 'read approach' as follows: (1) ready the materials, (2) extract data, (3) analyse data and (4) distil the findings.

Readying the material involved setting parameters in terms of the nature and number of documents to be analysed, based on the research questions. In the context of this study, the documents made ready were curricula of the ten tourism and hospitality training institutions.

Extracting data involved using an Excel spreadsheet to record information that I was seeking to extract from the document. On the spreadsheet, each row represented a document (curriculum), each column represented a category of information starting from the name of the institution, and then the green topics covered. In a case where no green topic was covered, the word 'nil' was entered under the columns.

Data analysis involved finding out the topics that were covered and those that were missing. I also looked out for the similarities and differences in the content of the documents. The aim here was reaching saturation, that is, fully or sufficiently understanding the phenomenon being studied.

Distilling the findings involved refining the findings, illustrating which concepts and practices were integrated into the curricula. It also involved checking how the validity of the findings checked against what was found using other methods.

4.8 Methods of Data Analysis

After collecting and cleaning the data, the next stage was data analysis. Kelley (2022) describes data analysis as the process of cleaning, changing, and processing raw data, and extracting actionable, relevant information that helps businesses make informed decisions. Because of the pragmatism and mixed methods approach that this study used, data was analysed using both qualitative and quantitative procedures. The qualitative procedure, on one hand, helped me to access the thoughts, perceptions, understanding and feelings of the research participants concerning the integration of green concepts and practices in the curricula of training institutions. On the other hand, the quantitative procedure enabled me to determine how many people took a particular position concerning the integration of the components.

Sutton and Austin (2015) suggested that doing qualitative research is about putting oneself in another person's shoes and seeing the world from that person's perspective. When this is done, the most important part of data analysis is to be true to the participants. Consequently, it is their voices that the researcher is trying to hear, so that they can be interpreted and reported on for others to read and learn from. Following Sutton and Austin's enjoyment, qualitative data was reported as anonymized transcript excerpts (or verbatim) which were taken from the research interviews conducted with the respondents. Creswell (2009) observed that in, qualitative research, conclusions are drawn from what the respondents' presented, and no statistics are presented in this section. Therefore, the respondents' responses to the open-ended questions, which were audio-recorded, were used to come up with transcript excerpts.

According to Sutton and Austin (2015), transcription must be done to convert the spoken word to the written word to facilitate analysis. The researcher first transcribed the audio recordings from all the interviews and emerging themes were established. According to Valsiner (2006), thematic analysis involves coding and grouping of related themes emerging from data together for simpler understanding. Therefore, the researcher looks for related themes in the data and describes the information in themes and patterns exclusive to that set of participants. Kothari (2004) called putting data responses into identifiable themes and categories theming. In relation to this study, this entailed putting similar responses on a question into one category. After theming, the data was ready for interpretation and discussion.

For quantitative data, analysis involved use of descriptive statistics. For questions that required the participants to indicate the levels or extent to which they thought they agreed or disagreed with an assertion, the data was analysed using counts (frequencies), percentages, and measures of central tendency and dispersion. These questions asked the respondents to indicate 'yes' or 'no'; 'not often', 'often', very often' or 'not sure' or 'not covered', 'fairly covered', 'not covered much'. For data visualisation, charts, tables, and graphs were used. Other data that was presented in table form was biological data.

4.9 Data Quality Assurance (DQA)

Data quality assurance or data trustworthiness is the way in which qualitative data is authenticated to give the study a touch of transferability, credibility, dependability, and confirmability. The researcher used these four trustworthy strategies, explained by Lincoln and Guba (1985), Korstjens and Moser (2018), and DeVault (2019), to ensure that this study achieved acceptability in terms of it being a true and unique academic product. For the quantitative component of the study, the researcher ensured that validity and reliability were achieved.

In this study, *credibility* was achieved through asking the same research questions of different study participants and collecting data from different institutions through different methods (interviews, questionnaires, and document analysis) to answer the same questions. For *transferability*, the researcher used detailed descriptions to show that the findings can be applicable to other contexts, circumstances, and situations. In addition, since data was collected from participants who had characteristics similar to people in other tourism and hospitality training institutions, outcomes of this study are likely to be transferable to other institutions.

The third standard for judging qualitative studies, *dependability*, was achieved through carefully conceptualising the study, making reliable research instruments, carefully collecting the data, and interpreting the findings and reporting results. In addition, this report has clearly explained the logic behind the decisions made concerning selecting the training institutions and the participants, and how the interviews were conducted, administered questionnaires, and did document analysis.

Confirmability was achieved by presenting information as it came from participants through verbatim reporting. This was further enhanced through member check, that is, asking the participants for feedback for all transcripts of the interviews.

4.10 Ethical Considerations

All human research should be subject to ethics review (Froud, 2019). Data collection has to follow stipulated ethical measures, protect and maintain the interests of both the researcher and the researched at all times (Bell, 1995). Ethical considerations are important because they ensure that there is fairness in the manner in which the research is conducted. This study considered several ethical measures, which are discussed in this section.

4.10.1 Approval for Conducting Research

It is important to note that for research to be conducted in an institution or on any living thing, there should be approval by a lawful ethical committee to ensure there is double protection (McMillan & Schumacher, 1997). This research was conducted based on the University of Zambia ethical guidelines for research. In view of this, approval for conducting this study was obtained from the University of Zambia Research Ethical Committee (Appendix VI). This is in line with Cilliers and Viljoen (2021) that university research ethics committees (RECs) are responsible for governing the research activities of researchers in academic environments. After that, the researcher obtained a letter from the Directorate of Research and Graduate Studies (DRGS) at the University which outlined the kind of research to be conducted. In addition, the researcher visited the relevant offices and stakeholders to seek permission to conduct research in the tourism and hospitality training institutions. Data collection only commenced after relevant gatekeepers did an approval.

4.10.2 Informed Consent

Brigg (2010) describes informed consent as ‘precondition for autonomous decision-making’. This implies that a researcher should realise that participants have the right to participate and not to participate in a study at hand. This argument is further strengthened by Tuckman (1994) who noted that the choice to participate in a study lies with the participant and his or her will to do so. Informed consent is, therefore, the bedrock for all

the trust relationship that researchers and participants develop in each other. Robson (1995) indicated that there should be consent between the researcher and the respondent. For this reason, I ensured that informed consent was signed with the respondent, after explaining to them the nature of the research, its impact, and the implication of taking part. Participants were also informed that they were free to withdraw from the study whenever they chose to (McMillan & Schumacher, 1997). In doing so, an explanation to the respondents on the need for their participation, their roles, was given to them and any other information they needed to know before the research could start. O'Neil (2002) explains that, although securing permission was important, it was also important for the researcher to have support from the people giving the information. Therefore, rather than enticing or coercing the participants to take part in the study, I informed them about the nature of the study and allowed them to make a decision to volunteer.

4.10.3 Confidentiality and Anonymity

One of the conditions on which informed consent rests is that participants' privacy or confidentiality will be respected. The Norwegian National Research Ethics Committee (2015) describes confidentiality as the means by which information is restricted to those authorised to have access to it. The Ethical Committee explains that confidentiality in the relationship between researcher and research subject is to be regarded as an obligation for the researcher and a right for the research subject. With this kind of understanding, the data collected in this study was treated with maximum confidentiality; the identity of the respondents regarding their names, status, age and any kind of data they provided were not exposed to any person. During data analysis, the names of the institutions, participants and research areas were not mentioned to protect the image and integrity of the respondents in case of whatsoever type of results that would come out. This procedure was in line with Oppenheim (1992) who indicated that the basic ethical principle is that no harm should come to the respondents because of their participation in the research either sociological or psychological.

4.10.4 Access to Results

According to Ohayon *et al.* (2017), one particular aspect of the relationship between researchers and participants that increases transparency and engagement is the return of individual research results to research participants. McMillan and Schumacher (1997)

insist that subjects from the sample who were researched from are entitled and should have access to the research results. In line with this requirement, a copy of the findings will be sent to relevant offices for dissemination after the completion of the study.

4.11 Chapter Summary

The chapter has presented the pragmatism paradigm and the reasons why it was settled for has been provided. A discussion on paradigmatic positions about epistemology, ontology and axiology has been availed. Significant influences on the methodology that is used in research, and the choice of a pragmatic paradigm led to the choice of a mixed methods approach, which, in turn, determined the choice of the research design, the sampling techniques, and the instrument used to collect data. Methodology used to collect data in order to answer the research questions of the study is also described. Data collection procedure and the methods of data analysis, all which are aligned with the choice of the research paradigm and design are presented. A discussion of how I attended to issues of data quality assurance and ethical considerations is given. In the next chapter, presentation of the findings of the study is outlined.

CHAPTER FIVE: PRESENTATION OF FINDINGS

5.0 Introduction

The chapter presents the findings of the study in line with the research objectives. The aim of the study was “To examine the extent to which green concepts and practices are integrated in the curricula of tourism and hospitality training institutions in order to promote environmental sustainability in the industry”. The hospitality industry in this case is seen as an important potential driver of sustainability. The study focused on curricula of tourism and hospitality training institutions in Zambia because these institutions have the purpose of inculcating knowledge, skills and attitudes that promote environmentally friendly/responsible/conscious behaviours in their students. Both quantitative and qualitative data is presented, starting with the former. Descriptive statistics, tables, and graphs to present the quantitative data have been utilised. For the qualitative data, verbatim quotes on themes from the thematic analysis is presented.

5.1 Background Information

This section presents background information relating to participant characteristics.

5.1.1 Background Characteristics of Participants

Table 8 shows the background characteristics of the participants.

Table 8: Background characteristics of participants.

Background characteristics	Frequency	Percentage
Age		
Below 20	0	0
20-25	116	57.1
26-35	52	25.6
36-45	17	8.4
46-55	6	3.0
55 and above	12	5.9
Sex		
Female	126	62.1

Male	77	37.9
Programme of study		
Bachelor of Science in Hospitality Management	27	13.3
Bachelor of Tourism and Hospitality Management	37	18.2
Master's Degree in Hotel Management	23	11.3
Doctorate Degree	11	5.4
Others (dip, cert)	105	51.7
Year of study		
Third Year	59	29.1
Fourth Year	32	15.8
Others	112	55.2
Duration of programme		
2 Years	60	29.6
3 Years	43	21.2
4 Years	20	9.9
Not Sure	80	39.4
Total	220	100

Table 8 shows the background characteristics of the participants. By age group, more than half (57%) of the respondents were in the age group 20-25; the lowest number was in the age group 46-55, constituting 3%. The majority of the respondents were female (62%). Concerning Programme of study, slightly more than half (52%) of the respondents studied programmes in the category 'other', followed by those who studied Bachelor of Tourism and Hospitality Management (18%), while the minority had studied Doctorate degree 5%.

By year of study, those who belonged to the category 'other years of study' had the highest percent distribution of respondents, at 55%. These were followed by those who were in third year (29%) and in the fourth year, at 16%. Lastly, by duration of programme of study, the highest proportion distribution of participants was those who were not sure of their duration of programme of study, at 39%, followed by those whose duration of study was 3 years, at 30%. The lowest number was in the category whose duration of study was 4 years.

5.2 Extent to which Green Concepts and Practices were integrated into the Tourism and Hospitality Training Institutions' Curricula

The first research question was: *To what extent do green concepts and practices integrated into the curricula of tourism and hospitality training institutions in Zambia?* To answer this question, the participants, both lecturers and students from various tourism and hospitality training institutions, were asked to state the extent of coverage of green concepts and practices in the curricula, and the extent to which they were emphasised in class activities, such as lessons, assignments and research. Findings are presented as both quantitative and qualitative data.

(a) Extent to which Green Concepts and Practices were Integrated

Table 9: The Extent of green concepts and practices coverage in the curricula.

Topic	Not covered	Fairly covered	Very much covered	Not sure
Hotel and Tourism Industry	9.4	46.8	35.0	8.9
Customer Care	9.9	26.6	51.7	11.8
Nutrition and Hygiene in Catering	10.3	31.0	50.2	8.4
Safety and First Aid	8.9	25.1	54.2	11.8
Communication Skills	8.9	30.0	54.2	6.9
Front Office Operations	6.9	21.7	63.1	8.4
Food and Beverage Service Techniques	8.9	30.0	50.7	10.3
Housekeeping Operations	5.9	25.6	59.1	9.4
Business Accounting in Hospitality Industry	22.2	31.0	33.5	13.3
Computer Application	14.3	30.0	40.4	15.3
Food and Beverage Costing and Control	18.2	29.6	39.4	12.8
Legal Aspects of The Hospitality Industry	22.7	38.9	26.1	12.3
Office Cashiering and Accounts	19.2	24.6	42.4	13.8
Principles of Management	29.1	24.6	27.6	18.7
Entrepreneurship	9.9	26.6	50.7	12.8

Hospitality Purchasing and Logistics	32.0	23.6	31.0	13.3
Principles of Food Production (Theory/Practice)	15.8	25.6	41.4	17.2
Food Costing and Control	17.7	24.1	45.8	12.3
Leisure and Recreation Management	32.5	23.6	26.6	17.2
Food And Beverage Service and Hygiene (Theory/Practical)	13.8	27.1	48.8	10.3
Tourism and hospitality Marketing	30.0	24.6	28.6	16.7
Tourism Planning and Development	28.1	29.1	27.6	15.3
Environmental Studies	29.6	13.8	30.0	26.6

Table 9 shows the extent to which green concepts and practices were integrated into the curricula of tourism and hospitality training institutions. The findings in the table shows that the topic which had the highest percentage of respondents indicating that green concepts and practices were covered was front office operation, at 63%. This was followed by topics that had more than fifty percent of respondents, namely housekeeping operation (59%), customer care (52%), nutrition and hygiene in catering (50%), safety and first aid (54%), communication skills (54%), food and beverage in technology (51%). The other green concepts, which were covered, included housekeeping operations (59.1%) and entrepreneurship (50.7%). These green concepts were covered more than others in the selected institutions. Meanwhile, the topics which had the lowest number of respondents indicating that green concepts and practices were covered were leisure and recreation management and legal aspects of the hospitality industry at 27% and 26%, respectively.

Table10: Extent of green concepts and practices coverage in the curricula of tourism and hospitality training institutions

1	2			3	4			5	6				
Topic	Not covered	Fairly covered	Very much covered	Mean Rank s	Absolute Variance of Individual ranks from the Mean Rank Rank-Mean (Numbers closest to 0 are the most significant)			Standard deviation (Numbers closest to 0 are the most significant)	Coefficients of Variation (Numbers closest to 0 are the most significant)				
	Rank 1 (n)	Rank 3 (n)	Rank 5 (n)		Rank 1	Rank 3	Rank 5	Rank 1	Rank 3	Rank 5	Rank 1	Rank 3	Rank 5
Hotel And Tourism Industry	20	103	77	3.57	2.57	0.57	1.43	1.60	0.75	1.20	0.45	0.21	0.33
Customer Care	22	59	114	3.94	2.94	0.94	1.06	1.72	0.97	1.03	0.44	0.25	0.26
Nutrition And Hygiene in Catering	22	68	110	3.88	2.88	0.88	1.12	1.70	0.94	1.06	0.44	0.24	0.27
Safety And First Aid	20	55	119	4.02	3.02	1.02	0.98	1.74	1.01	0.99	0.43	0.25	0.25
Communication Skills	20	66	119	3.97	2.97	0.97	1.03	1.72	0.98	1.02	0.43	0.25	0.26
Front Office Operations	15	48	139	4.23	3.23	1.23	0.77	1.80	1.11	0.88	0.42	0.26	0.21
Food And Beverage Service Techniques	20	66	112	3.93	2.93	0.93	1.07	1.71	0.96	1.03	0.44	0.25	0.26
Housekeeping Operations	13	56	130	4.18	3.18	1.18	0.82	1.78	1.08	0.91	0.43	0.26	0.22
Business Accounting in Hospitality Industry	49	68	74	3.26	2.26	0.26	1.74	1.50	0.51	1.32	0.46	0.16	0.40
Computer Application	31	66	89	3.62	2.62	0.62	1.38	1.62	0.79	1.17	0.45	0.22	0.32
Food And Beverage Costing and Control	40	65	87	3.49	2.49	0.49	1.51	1.58	0.70	1.23	0.45	0.20	0.35
Legal Aspects of The Hospitality Industry	50	86	57	3.07	2.07	0.07	1.93	1.44	0.27	1.39	0.47	0.09	0.45
Office Cashiering and Accounts	42	54	93	3.54	2.54	0.54	1.46	1.59	0.73	1.21	0.45	0.21	0.34

Principles Of Management	64	54	61	2.97	1.97	0.03	2.03	1.40	0.18	1.43	0.47	0.06	0.48
Entrepreneurship	22	59	112	3.93	2.93	0.93	1.07	1.71	0.97	1.03	0.44	0.25	0.26
Hospitality Purchasing and Logistics	70	52	68	2.98	1.98	0.02	2.02	1.41	0.15	1.42	0.47	0.05	0.48
Principles Of Food Production (Theory/Practice)	35	56	91	3.62	2.62	0.62	1.38	1.62	0.78	1.18	0.45	0.22	0.33
Food Costing and Control	39	53	101	3.64	2.64	0.64	1.36	1.63	0.80	1.17	0.45	0.22	0.32
Leisure And Recreation Management	72	52	59	2.86	1.86	0.14	2.14	1.36	0.38	1.46	0.48	0.13	0.51
Food And Beverage Service and Hygiene (Theory/Practical)	30	60	107	3.78	2.78	0.78	1.22	1.67	0.88	1.10	0.44	0.23	0.29
Tourism and hospitality Marketing	66	54	63	2.97	1.97	0.03	2.03	1.40	0.18	1.43	0.47	0.06	0.48
Tourism Planning and Development	62	64	61	2.99	1.99	0.01	2.01	1.41	0.10	1.42	0.47	0.03	0.47
Environmental Studies	65	30	66	3.01	2.01	0.01	1.99	1.42	0.11	1.41	0.47	0.04	0.47

Table 10 also depicts the extent to which participants thought the topics indicated in Column 1 were integrated in the curricula. Ranks 1, 3, and 5 in Column 2 show the frequency of the responses given by the participants while Column 3 shows the mean ranks of the responses. Columns 4 (the absolute variance of individual ranks from the mean rank), 5 (standard deviation of individual ranks from the mean rank), and 6 (the coefficients of variation) show how scores dispersed or varied from the mean. In all cases, values closest to zero (the mean) were the most significant because they indicated that the scores were not very far from the mean. In the table, these values have been shaded grey. Clearly, most of the respondents thought that green concepts and practices were fairly covered (rank 3). This is the rank which has the lowest deviations from the mean. Of particular interest is the last row where responses for the topic environmental studies depict some of the smallest deviations from the mean, an indication that many respondents felt that this topic had fairly a good amount of content on green concepts and practices.

(b) Area of Emphasis for Green Concepts and Practices by Lecturers

Table 11 below shows what the participants indicated about the areas of emphasis for green concepts and practices by lecturers in class. For lectures, 33% of the respondents (majority) stated that green concepts and practices were emphasised very often. For assignments, 41.9% (majority) of the respondents indicated that green concepts and practices were very often emphasised. For research, 39.4% (majority) of the respondents indicated that green concepts and practices were very often emphasised. In all the three categories, a higher number of the respondents stated that green practices were very often emphasised than those who stated that green concepts and practices were not often emphasised or that they were often emphasised.

Table 11: Area of emphasis for green practices by lecturers from training institutions

Area of emphasis for green concepts and practices	Not often	Often	Very often	Not sure
Lectures	20.7	31.5	33	14.8
Assignments	17.7	20.7	41.9	19.7
Research	16.3	24.6	39.4	19.7

Results presented in table 11 are on the area of emphasis for green practices by lecturers from training institutions. Adding the results that are positive, 64.5% of lecturers were positive, 62.6% emphasis was in assignments and 64% said the emphasis was in research. This result indicates that many of the participants felt that green concepts and practices were emphasised during lectures, assignments, and research.

(c) Areas in Which Green Concepts and Practices Were Emphasised

Students were asked to indicate in which areas of their programmes green concepts and practices were emphasised as in table 12.

Table 12: Areas in which green concepts and practices were emphasised.

Areas in which green practice is emphasised	Frequency	Percentage
Green practice is emphasised in theory	25	12.3
Green practice is emphasised in practical	61	30
Emphasised in both theory and practical	52	25.6
Green practice is emphasised in examinations	28	13.8
Not sure	27	18.2

The results in Table 12 show that most of the students said that green concepts and practices were emphasised in the practical part (30%) rather than the theory part of the curricula, while 25.6% indicated that emphasis was in both the practical and theory parts. As for the examinations, 12.3% of the respondents indicated that elements of green concepts and practices were brought in theory paper while 13.8% said the elements came in the practical examinations. This result shows ambivalence; it is not so certain what the situation was as a result.

5.2.1 Findings on Which Green Concepts and Practices were integrated into the Tourism and Hospitality Training Curricula

(a) Maintaining Wildlife Conservation

When participants were asked about what they understood about green practices, they revealed that green practices were those that helped in protecting the ecosystem through wildlife conservation. This theme was evident that there was a settling understanding of green concepts and practices in the tourism and hospitality training institutions. This also signifies that the tourism and hospitality industry to some extent recognizes the significance of these practices. The verbatim below substantiates these findings.

From the tourism aspect, when you look at the parks, we look at the ecosystems. So, if the parks are affected then our business will go down. When it comes to food, we make sure that the food given to tourists is health. Because we know that if any problem arises it will be our responsibility. So, we make sure that every aspect of our operation is taken with great responsibility. (Lecturer, Institution 1)

(b) Waste Management

Another theme that came out strongly was waste management. Lecturers demonstrated knowledge of the meaning of green practices by indicating that waste management was an aspect of greening. They described waste management variously, such as garbage disposal, maintaining cleanliness, safe disposal of waste, avoidance of littering and control of sewerage. One participant said:

In the tourism sector, I think in everything we do, all practices must be associated with the accumulation of things that add to climate change. For example, practices like restaurant leftovers, garbage disposal. So, there is need that we come up with ways that will help us to have an effective way of removing disposal. So, in general things that would harm the environment. (Manager, Institution 2)

(c) Changing of Beddings

Another theme that emerged to reflect the notion that lecturers understood green concepts and practices was that some lecturers thought of it as involving changing of beddings. Changing of beddings may have been closely related to sanitation but the two are distinct in important qualitative ways. By changing beddings, the participants may have meant

that beddings needed to be changed often and that beddings needed to be washed often as a strong demonstration of environmental sustainability. This theme emerged from lecturers who had had training in environmental science. One of them stated that:

Changing of the beddings, candy drier we use disposables. So, we look at the quality of disposables. We ensure that every bedding is tagged, and a life span is given for the sake of not over-using. This helps the industry to be environment friendly and lessen internal pollution. (Lecturer, Institution 3)

(d) Maintaining Cleanliness

Yet another theme that emerged in relation to lecturers understanding what green concepts and practices were was maintaining cleanliness. Participants understood green practices as meaning environmental cleanliness. By cleanliness, the participants were understood to mean that the hotels, lodges and guest houses were supposed to maintain high standards of sanitation and cleanliness as a way of contributing to the sustainability of ecosystems. The following verbatim corroborates this finding:

From my point of opinion, these are areas that can help us from running away from practices that can hinder our progress. As you know, we are a hotel management we have to make sure that the environment is clean. (Manager, Institution 1)

(e) Conserving Energy

Conservation of energy was another theme that emerged strongly from the findings. Many lecturers seemed to understand green practices as conserving of energy. Conserving of energy is understood to mean switching off bulbs and electrical appliances when not using them and using renewable energy in homes and offices. Some lecturers mentioned avoidance of use of eco-harmful gases, such as carbon dioxide; methane; nitrous oxide, and fluorinated gases. The following verbatim validate this understanding:

I feel green practices means conserving energy, like switching off bulbs and avoidance of using biogases for industrial or domestic activities. I think these things destroy our ozone layer. (Lecturer, Institution 3).

Over the same matter, another participant stated that:

It is about conserving energy, considering the environment, and managing waste. In the hospitality industry, we look at conserving energy, changing of the beddings. For candy drier, we use disposables. So, we look at the quality of disposables. I remember when I was in China, they are moving away from the candy drier into a more modern method. (HOD, Institution 10)

On the importance of green concepts and practices from the educator's point of view, one participant stated that:

Green practices are very important because you will see that people leave a tap without closing it. I remember when I was in India, they were recycling water. So, we can [also] be doing that as well. So, they would even tell you that we are using the same water [recycling]. But here in Zambia they [people] will say Same water....no.... (Manager, Institution 4).

(f) Recycling and Reuse

An interesting theme that emerged from thematic analysis was recycling and reuse of products. Participants, specifically lecturers, understood recycling as an important defining factor for green practices. Lecturers strongly related this concept to the theme of conservation of energy. There was evidence that people in the tourism and hospitality training institutions had an idea of what green concepts and practices were. This is what one of the HODs stated:

I remember the time I was doing my degree; they [lecturers] touched on the issue of recycling, repair, reuse and widening. But like, I said, there was no emphasis. So, if we can practice that I think we can help this country. Because I can only remember that it was about waste management. So, green practices are not integrated the way they are supposed to be integrated. (HOD, Institution 10).

These findings show evidence that lecturers had some understanding of what green concepts and practices were. This could be the starting point towards proper integration of the concepts and practices into the curricula of tourism and hospitality training institutions.

5.2.2 Prevailing Situation on the Teaching of Green Concepts and Practices

The second question under research question one was: *What was the prevailing situation on the teaching and learning of green concepts and practices in the curricula of tourism and hospitality training institutions?* In order to determine the prevailing situation, respondents were asked to indicate ‘yes’ or ‘no’ concerning whether any green aspects were taught from the time they started learning. This moved the narrative from merely having topics in the curricula to actually teaching them. Figure 8 shows the findings.

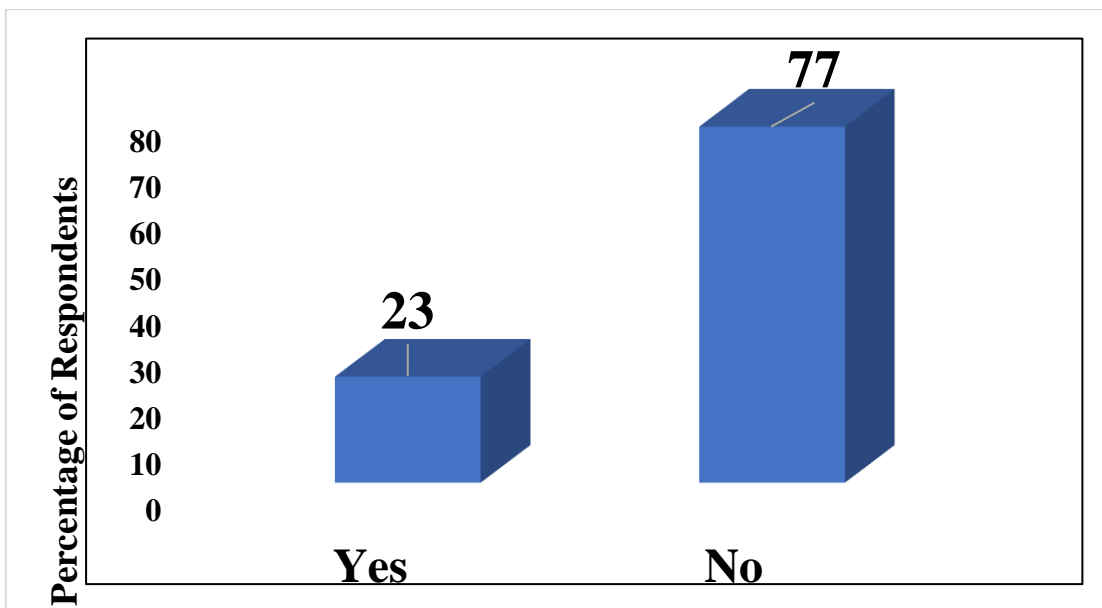


Figure 6: Prevailing situation on whether green concepts and practices were being taught.

The findings show that the majority of the respondents (77%) indicated that no green components had been covered in their lessons from the inception of learning in the first year. This only leaves 23% who indicated that they had covered green aspects in their respective courses. Because of this result, it can be concluded that the prevailing situation was that, for the majority of students, no green concepts and practices had been taught in the many of the courses they followed. This could indicate the presence of a gap between what was contained in the curricula and what was being taught.

5.3 Understanding Of Green Concepts and Practices by Lecturers and Students in The Tourism and Hospitality Training Institutions of Zambia

The second research question was: *How did lecturers and students understand green concepts and practices integrated into the curricula of tourism and hospitality training institutions of Zambia?* In other words, objective two was to find out why green concepts and practices were not integrated into the curricula, or why they were not being taught. Thus, respondents were asked why there was a lack of integration of green concepts and practices in the curricula and why they were not being taught. The participants gave different reasons which I have presented in this section.

5.3.1 Absence of Intentionally Integrated Content

Regarding the extent to which green aspects were integrated into the curricula, the findings of the study revealed two positions. The first position was that green concepts and practices were present in the curricula but latently. This means that the topics were not included intentionally in the curricula as green concepts and practices but, rather, as by the way topics (for example, as environmental management). The other position was that green aspects were theoretically present but practically absent. This means that, although the topics were present in the curricula, they were not focused because instructors were not familiar with sustainability concepts and practices. The following verbatim substantiates these research findings. One participant had this to say:

The topics could be present in the hospitality curricula, but we don't call them green concepts and practices because we are not familiar with the term green concepts and practices. (HOD, Institution 1)

5.3.2 Absence of a Designed Curriculum

Regarding the extent to which green concepts and practices were integrated into the curricula, the study revealed that the concepts and practices were present in the curricula but latently. This theme was expressed as somehow existent, not existent, a by the way thing, while some described it as practically absent but theoretical. The following verbatim corroborates these findings.

The curriculum does not speak to that. But the curriculum talks about environment management. For students studying tourism management such component is there theoretically. So, I can say students do learn these things

but not to a great extent because there is not a well-designed curriculum for it. (HOD, Institution 8)

5.3.3 Topics Exist but Not as an Area of Focus

Some participants felt that green concepts and practices existed in the curricula but not as the focus of the curricula. This category of participants felt that salient elements of green aspects were imbedded in the curricula but were subsidiary to the traditional/principal content. The participants believed that topics such as waste management were typical examples of topics which covered green concepts and practices although when these topics were taught, protecting the environment was not the focus. One HOD had the following to say:

I think it is lack of sensitisation to people. So, we need to sensitise the people about environmental management and green practices. Like I told you, the components are there in the courses, but this is not to a large extent. (HOD, Institution 7)

Another lecturer stated the following:

I remember the time I was doing my degree; they [lecturers] touched on the issue of recycling, repair, and reuse. But like I said, there was no emphasis. So, if we can practice that I think we can help this country. Because I can only remember that it was about waste management. So green practices are not integrated the way they are supposed to be integrated. (HOD, Institution 10)

5.3.4 Topics Exist as an Area of Focus

There was tension in the data during analysis when some participants had a different view of their curriculum. While most of the participants felt that green concepts and practices were integrated in a latent and subordinate manner, some felt the practices were important areas of focus in the curricula. Two of the institutions investigated had a head of department and a lecturer who taught green concepts and practices. These acknowledged that topics on green concepts and practices existed in the curricula. When asked to state whether there were people trained to teach the components of green concepts and practices, the HOD said:

Yes...here, myself, and another lecturer who teaches about all the components that have to do with green aspects. I was trained at Hong Kong University and my colleague at the University of Zambia. But I am not sure about the programme he studied at the University of Zambia. We do teach green concepts and practices and we are going to emphasise it during our curriculum review meetings. (HOD, Institution 9)

Another HOD stated the following:

We have taught green practices in this institution for some time because in my training I was exposed to them. I should state that they do not come out clearly as green practices, but we teach them in line with other practices in the institution. (HOD, Institution 3)

5.3.5 Green Concepts and Practices Only Integrated into Practical Courses

Another way in which green concepts and practices were reported to be integrated into the curricula was through inclusion of practical courses. This was also another point of contradiction in the findings. Participants seemed to hold splitting views on the existence of green aspects and, of course, the extent to which these were integrated into the curricula. This contradiction is in itself an important source of information regarding the extent of integration as it would mean the existence of green aspects itself is unclear.

5.3.6 No Lessons on Green Concepts and Practices

One of the findings of the study was that tourism and hospitality training institutions did not offer lessons on green concepts and practices. The reasons elicited from the questionnaire are presented in Figure 9.

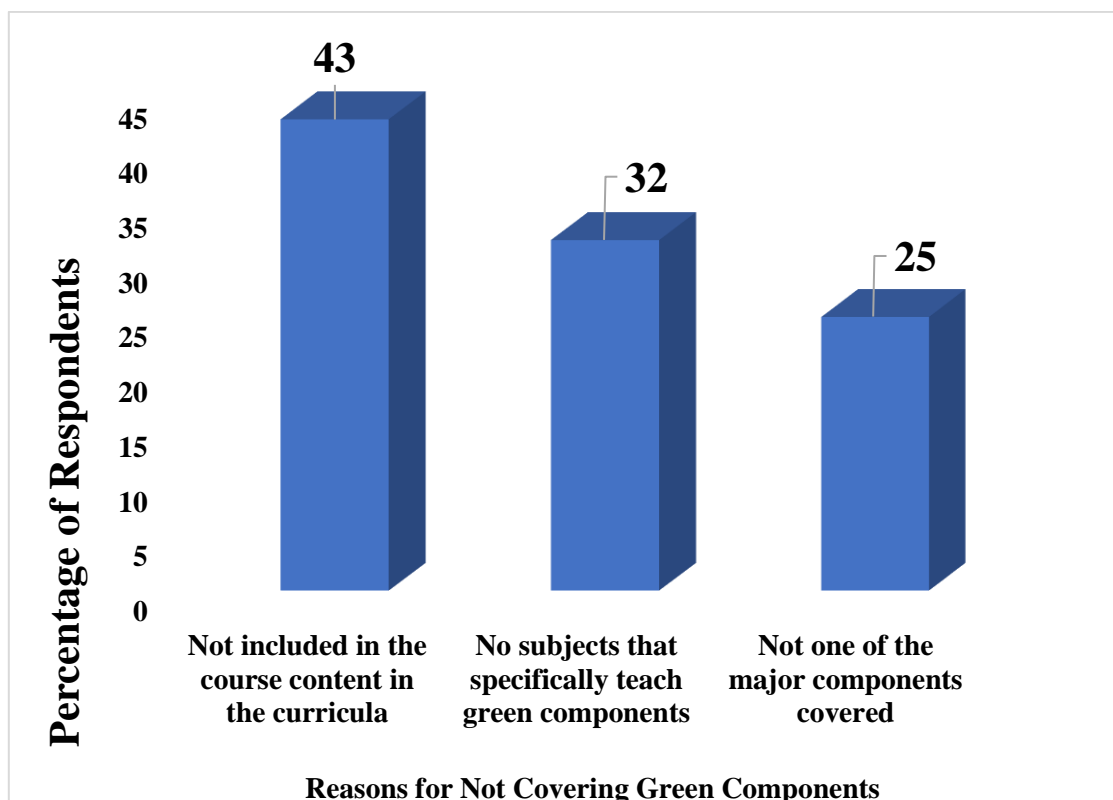


Figure 7: Reasons for not covering green components in respective courses.

The findings from lecturers and learners showed that there were three reasons why green concepts and practices components were not covered in class. The main reason was that green concepts and practices were not covered in the course content of the curricula (43%), followed by the reason that no subjects specifically taught green components (32%). The other reason was that green aspects did not constitute a major component of the content taught (25%).

From the interviews, the response that was frequently given was that management did not consider teaching green concepts and practices as very important compared to other typical tourism and hospitality content. The verbatim below corroborates this finding:

As things stand, it [green concepts and practice] has not been included in the curriculum. But I must say that it is important and, if included, it will yield good results. So, we are looking forward to including that one. I think the problem is with management. Management has not looked at that issue. Of course, the keeping environment clean campaign is there but it is not enough. So, it is about authority. So, we have to incorporate it into the curriculum (HOD, Institution 2).

5.4 Components of Green Concepts and Practices which can be Integrated at Various Levels of the Curricula

The third research question explored the aspects of green practices which could be integrated at various levels into the curricula of tourism and hospitality training institutions in Zambia. The question was: *What aspects of green concepts and practices could be integrated at various levels of the curricula of training institutions?* Themes under green components that could be integrated in courses were green transport, green buildings, green technology and renewable resources. It was noted that most (35 percent) of the respondents said that green technology could be integrated into the curricula while the minority (15 percent) of the respondents said that renewable resources should also be included.

5.4.1 Themes on Green Concepts and Practices That Could Be Integrated

Figure 10 shows that the respondents (lecturers and students) said that the themes under green components that could be integrated into courses were green transport, green buildings, green technology and renewable resources. It was noted that 35% of the respondents said that green technology could be integrated in the curricula while the minority 15% of the respondents said that renewable resources should also be included. On the other hand, 27% and 23% of the respondents said that green buildings and green transport content should be integrated in the curricula, respectively. These components were said to be very important in the sense that they could make students more aware of green practices and that could save resources, make more profit as well as other benefits which could come about due to green behaviour.

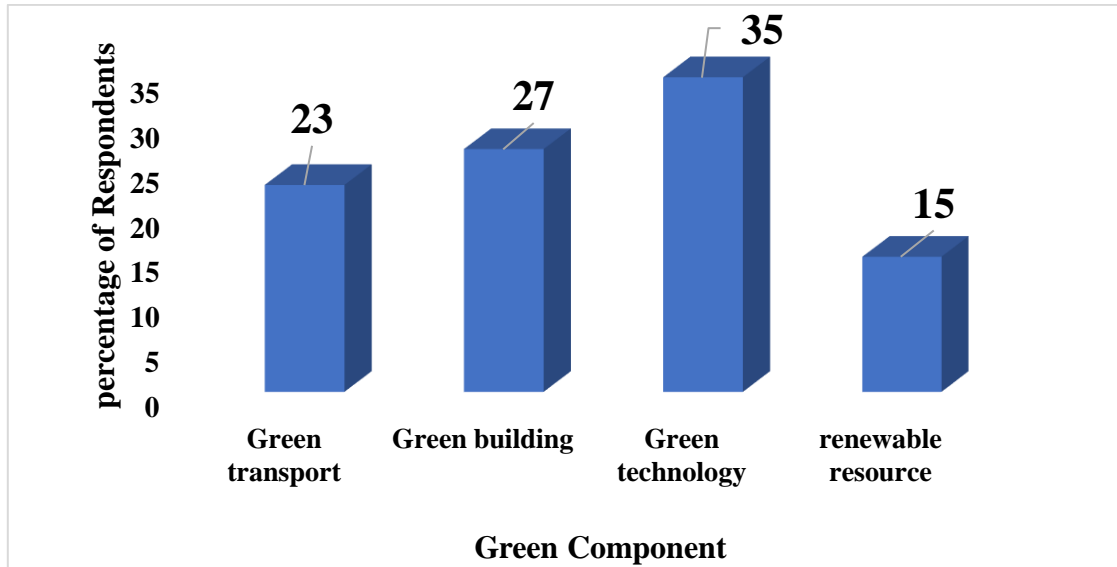


Figure 8: Themes on green components that could be integrated.

5.4.2 Emphasis on Green Practices by Lecturers

Figure 11 shows how often lecturers put emphasis on green practices during their teaching. The highest percent of respondents (44%) affirmed that lecturers very often emphasised on green practices, 11.8% said often while 17.2% said not often. The figure shows that the green practices were emphasised by the lecturers as they conducted classes.

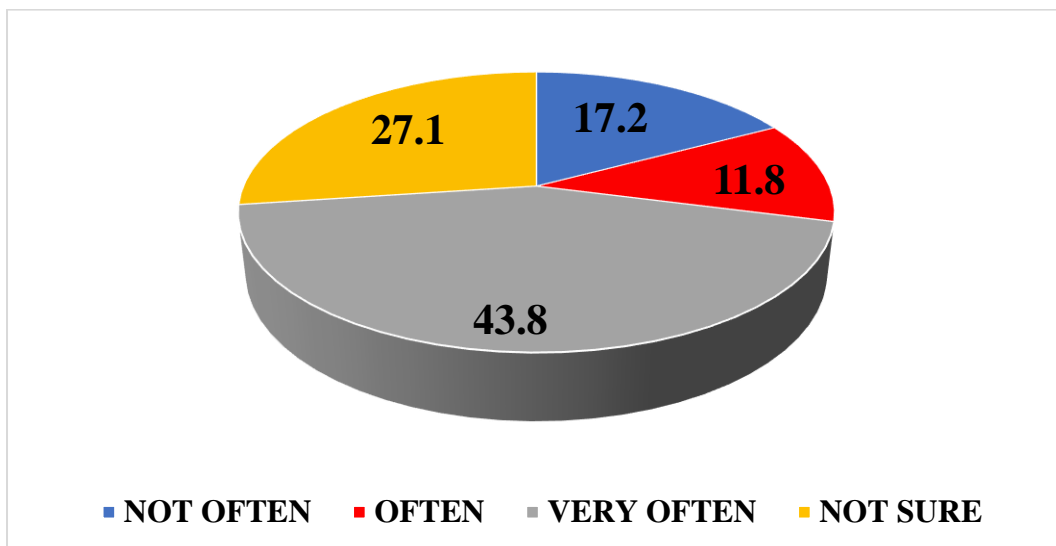


Figure 9: Frequency of emphasis on green practices by lecturers (in percentage).

5.4.3 Awareness About Ecofriendly Practices

Figure 12 shows levels of awareness about ecofriendly practices among the respondents. The majority of the respondents indicated that they were very conscious about ecofriendly practices 35% while the minority indicated that they were not conscious 14%.

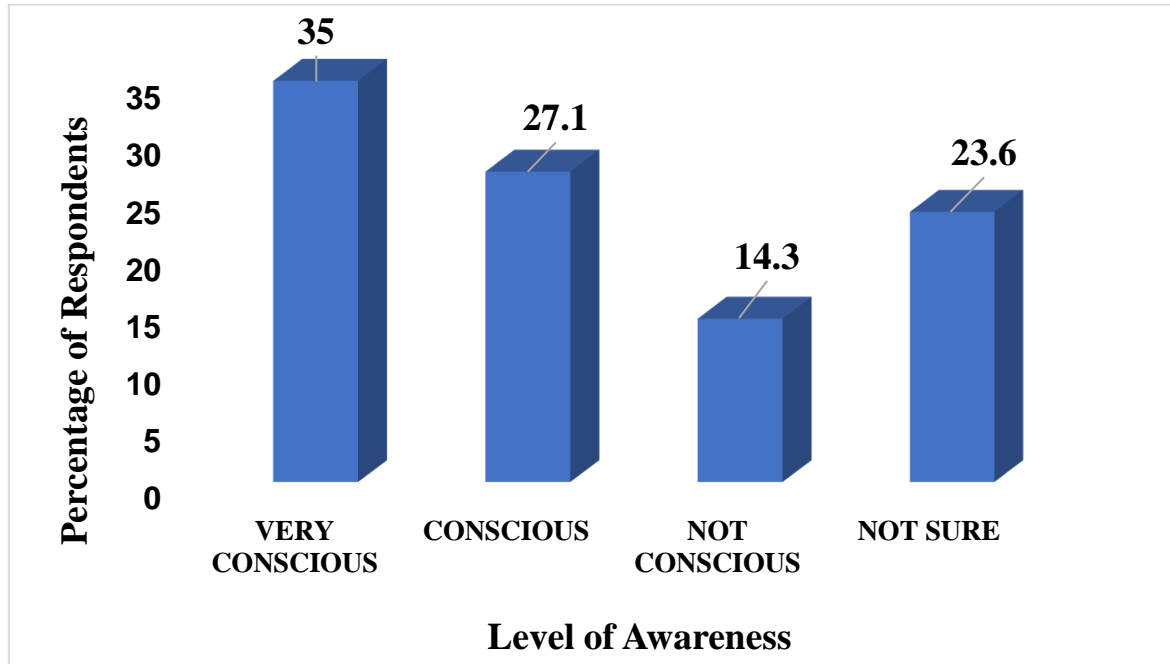


Figure 10: Awareness about ecofriendly practices.

5.4.4 Coverage of Topics on Green Components in Class

Figure 13 shows responses to a question that required respondents to indicate whether or not topics on green components were covered in class. Although the majority of respondents (47.3%) stated that they were not sure if they covered green components in class, another 41.9% indicated that such topics were covered. Only 10.8% said the topics were not covered.

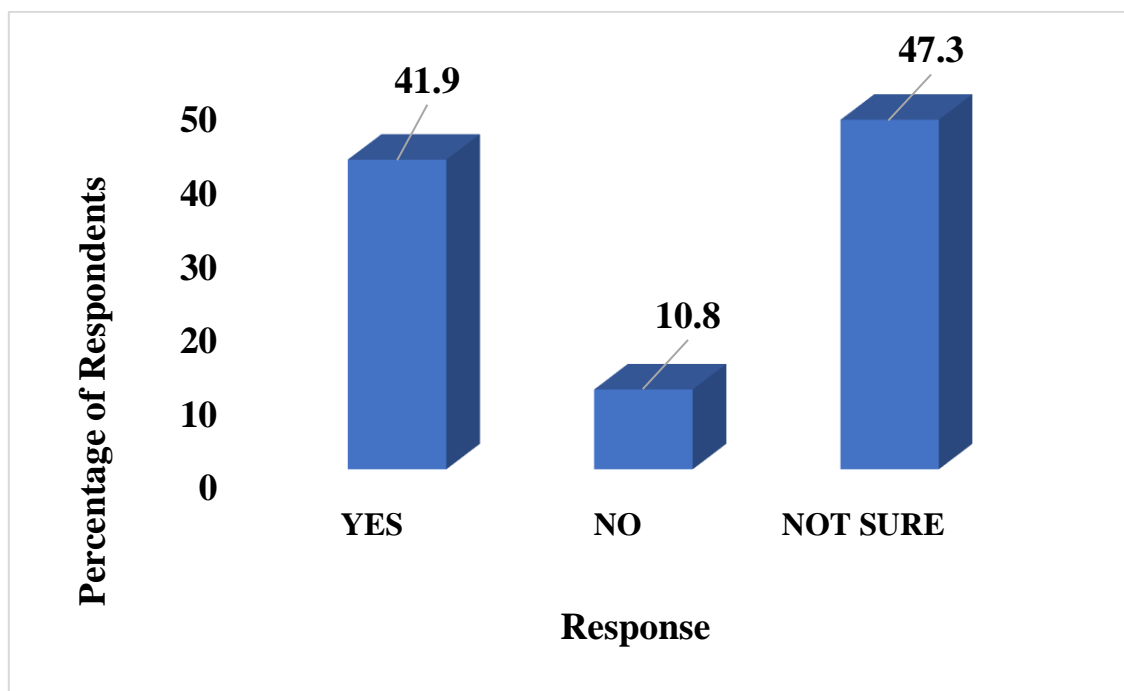


Figure 11: Green components practices in the topics covered.

5.4.5 Coverage of Topics on Green Components by Year and Programme of Study

Table 13 shows responses concerning coverage of topics on green components by year and programme of study. For both programme and year of study, the responses show that the majority of respondents were not sure as to whether or not topics on green concepts and practices were covered.

Table 13: Coverage of topics on green components by programme and year of study.

Explanatory variable	Percentage of responses		
	Yes	No	Not sure
Programme of study			
(a) Bachelor of Science in Hospitality Management	14.8	3.7	81.5
(b) Bachelor of Tourism and Hospitality Management	18.9	13.5	67.6
(c) Master's Degree in Hotel Management	13.0	4.3	82.6

(d) Doctorate Degree	9.1	18.2	72.7
(e) Others	66.7	12.4	21.0
Year of study			
(a) Third year	30.5	5.1	64.4
(b) Fourth year	9.4	3.1	87.5
(c) Other	57.1	16.1	26.8

The findings of the study in table 13 state that the coverage of topics on green components by programme and year of study were not known in all the bachelors, masters and doctoral programmes which were offered by the institutions.

5.5 Topics which Participants Felt should be Included in Curricula

In this section, the study explored the views of the managers and heads of department on what components they felt needed to be integrated into the curricula of the tourism and hospitality training institutions. From these interviews, several topics emerged and are presented here as the gaps in the existing curricula.

5.5.1 Conservation of Natural Resources

Participating lecturers felt it was important for a specific component on conservation of natural resources to be added as a topic. This proposal mostly came from participants who felt that the component was nonexistent in the present curricula. Subtopics under this general topic included wildlife conservation, conservation of trees, soil conservation, aquatic conservation, sustainability, mineral conservation and environmental air conservation. These codes together best represented conservation of different natural resources. One head of department stated that:

I think there is need to conserve our resources like wildlife and trees to discourage deforestation. I think, sometimes we damage our own resources and that in turn affects the ecosystems. We need to have specific lessons in our syllabus that emphasizes positive attitudes of our students towards environmental protection and sustainability. (HOD, Institution 3)

A manager at one of the institutions had this to say:

I would suggest aquatic conservation. If hospitality industries can have fishponds and have water conservation mechanisms, that would need to start with our students of hotel management. If I was to be involved, I would emphasise this because I think it is an important green practice. (Manager, Institution 6)

5.5.2 Keep Zambia Clean, Green and Healthy

Some participants felt that the ‘Keep Zambia Clean, Green and Healthy Campaign’ was supposed to be a special topic or course in the curricula. They felt that this would help students to have green behaviour in mind in all their actions even when they begin to save as professionals. The verbatim below substantiates this finding:

The first thing to do is to inculcate Keep Zambia Clean, Green and Healthy in our young professionals in the industry. If this can start right from first year to final year, it would sink better because I know for sure that some students can forget after graduation if they only learn once. (Manager, Institution 8)

An HOD at one of the institutions stated the following:

Yes, at this institution, we have institutionalised the Keep Zambia Clean, Green and Healthy Campaign. All the students are involved in the weekly cleaning of the surrounds every Friday. But if this was part of what learners are going to learn in class, it would be taken seriously. (HOD, Institution 7)

5.5.3 Green Focused Topic on Waste Management

Like it was indicated earlier, some managers felt that there were no topics on green concepts and practices, such as recycling, in the curricula while others felt that the topics existed but were not linked explicitly to green concepts and practices. Some respondents described waste management as garbage disposal, maintaining cleanliness, safe disposal of waste, avoidance of littering and control of sewerage. Other lecturers associated waste management to recycling and suggested that a topic on recycling clearly showing its functions in environmental sustainability was inevitable. The verbatim below reflects these research findings:

If I was to be a consultant on the curriculum development process, I would encourage topics such as recycling to explicitly be taught in relation to

green practices. In fact, I would suggest encouraging research projects, practical and recycling projects at the end of the programme. (HOD, Institution 3)

A manager at one of the institutions stated the following:

In the tourism sector, I think everything we do all practices must be associated with the accumulation of things that add to climate change. For example, practices like restaurant leftovers, garbage disposal. So, there is need that we come up with ways that will help us to have an effective way of waste disposal. So, in general things that would not harm the environment (Manager, Institution 2).

5.5.5 Technology in the Context of Green Practice

Technology in the context of green concepts and practices was a topic proposed by many participants. The topic was mentioned in ways, such as reduction on usage of paper, and the use of solar energy to light gadgets. These codes were closely related to recycling but, in this case, it was about usage of digital and electronic gadgets to avoid using paper which comes from trees. The quotes below reflect this research finding.

I would include technology in the curriculum so that there is a reduction on the use of paper. So, we would introduce e-learning. Regarding waste management in the food management, I would make sure that people get to eat only food that they are able to finish at a time. We need more sensitisation to customers and the students. Also, in areas like energy we need switch and save campaigns. For those using detergent paste, we need health consumption, so we need machines that are efficient. When it comes to restaurants, we can come up with different things to use. I would recommend using wooden utensils. (HOD, Institution 6)

A manager at one of the institutions stated the following:

*Very important because you will see that people leave a tap without closing it. I remember when I was in India, they were recycling water. So, we can be doing that as well. So, they would even tell you that we are using the same water. But here in Zambia they can say ummmm same water....
No. (Manager, Institution 4)*

5.6 Data Collected Through Document Analysis

Some data were collected through analysis of curricula content. Therefore, this section, presents the data that was collected through this procedure.

5.6.1 Existence of Green Practices in The Tourism and Hospitality Curriculum

As I have indicated earlier on in the methodology chapter, document analysis served mostly as a supplementary source of data to augment data that was collected through research questionnaires and semi-structured interviews. It was also used as a method of triangulation. Comparing the elements in the curricula to those in the document analysis checklist (Appendix V), the analysis revealed that very few topics which can be considered as green concepts and practices were included in the tourism and hospitality curricula. The analysis further revealed that salient elements of green aspects were imbedded in the curricula but were subsidiary to the traditional content.

5.6.2 Extent To Which Green Practices Where Integrated into The Curriculum

Regarding the extent to which green practices where integrated into the curriculum, the document analysis revealed that green concepts and practices were there but latently, a by the way thing and not an area of focus. Institution 1 had two topics while institutions 2 had only one topic and institution 8 had nil topics similar or close to what can be called green topics, as follows: (see Appendix V11).

Table 14: Topics in institutional curricula which had aspects of greening.

	Institution/s	Topic(s)
1.	1	(a) Occupational safety, Health, Security, and Environmental (b) Sustainable Tourism Planning and Development
2.	2 The rest of the institutions	Environmental Studies
3.	8	Nil

The findings in Table 14 show that the representation of green concepts and practices in the curricula was very low. As such, the content may not meet the current and long-term

needs of the students. For institution No 8, in fact, no topics were perceived to be aspects of greening.

5.7 Curriculum Framework That Can Be Used to Integrate Green Components in the Curricula

The fourth research question was: *What curriculum framework was suitable for the integration of green components in the curricula of tourism and hospitality training institutions?* The study had to develop a sustainability education curriculum framework that could be used to integrate green aspects in the curricula for tourism and hospitality training institutions using the responses from objectives 3. By integrating this content into the curricula, the graduates are expected to have sustainability skills and knowledge as well as principles and pedagogical competencies that could be useful in their work places as they join the industry.

5.8 Chapter Summary

The chapter discussed the findings of the study. The results show that most of the participants thought of themselves as knowledgeable about sustainability education. For most of the courses offered in the various tourism and hospitality training institutions. There were more respondents indicating that green concepts and practices were integrated than those who were reporting that green aspects were not integrated (knowledge action gap). Furthermore, the results revealed that the majority of the respondents said that no green concepts and components had been covered in the curriculum from the time they started doing their respective courses to the time of the study while the minority said that they had covered green components in their respective courses. It can be concluded that the prevailing situation was that, for the majority of students, no green components had been taught in the many courses they followed. This could indicate a lack of presence of green components in the curricula of these training institutions. There was tension in the data during analysis when some participants had a different view of their curriculum. While most of the participants felt that green concepts and practices were integrated in a latent and subordinate manner, some felt the practices were important areas of focus in the curricula. This shows a discrepancy between what the participants knew and what they didn't know. The next chapter discusses these findings.

CHAPTER SIX: DISCUSSION OF FINDINGS

6.0 Introduction

The chapter presents discussion of the findings of the study regarding integrating green concepts and practices into the curricula of tourism and hospitality training institutions of Zambia. Taking into account this research problem, the research aim was to examine the extent to which green concepts and practices are integrated in the curricula of tourism and hospitality training institutions in order to promote environmental sustainability in the industry. Four research questions that arose from review of literature were used to discuss the objectives as indicated below:

6.1 Extent to which Green Concepts and Practices Exist in the Tourism and Hospitality Curricula in Zambia

Concerning the existence of green concepts and practices in the curricula, two scenarios emerged. The first scenario was that respondents reported that green concepts and practices existed in the curricula of tourism and hospitality training institutions in the country. The second scenario was that, for some institutions, a content analysis showed that no green concepts and practices were integrated in the curricula. Evidence to the effect that green concepts and practices were integrated is provided in Tables 10. More than half of the respondents indicated that green concepts and practices were covered in the topic Front Office Practices (see literature review section). This finding agrees with Domingo (2019) whose study in Rwanda had similar results. However, in the Zambian institutions, the green concepts and practices seemed not to have been covered to a larger extent in the curricula for the students to practice these green skills and implement them in the Zambian tourism and hospitality industry. This questions the extent to which green concepts and practices were taught in the Zambian tourism and hospitality curricula. The study found that, for topics that were covered, aspects of green concepts and practices were not the main topics, not the focus, but were subsidiary to other content. If training in sustainability is to make an impact, then there has to be a deliberate and explicit effort to include topics on greening (see reviewed literature). This argument is in line with (Salv, 2000). Salv's focus is on creating specific action steps and commitments that focus people's attention on incorporating their new skills and ideas back at work. From the current study, it can be seen that green concepts were not taught to a larger extent in the

Zambian tourism and hospitality training institutions since they were not the core content of the curricula.

Findings reported in table 9 show that most of the respondents indicated that green concepts and practices were least covered in the topics Leisure and Recreation Management, and Legal Aspects of the Hospitality Industry. When I examined the curricula, I found that green concepts and practices were reasonably covered in the topic Leisure and Recreation Management and not so much in the legal aspects. This is in tandem with the (literature reviewed) about Dale and Newman (2005) that the traditional discipline-based model of education focused on skills acquisition through knowledge building which was found lacking as far as SE/ESD is concerned. Aspects of greening in the curricula should be concerned with shifting attitudes and modifying future behaviours of the students training to be employed in the tourism and hospitality industry. Behaviours to be shaped in this case should include the way students should manage the leisure and recreation of the clients which has to respond to the green practices. I maintain that if this was to be well planned, it can give hope to the existing curricula and better the practices of the trainees and their work place. The green practices in this case have to be considered as important curricula content which should be integrated in the Zambian hospitality industry training programmes.

The findings also provided evidence that green concepts and practices were emphasised when teaching but only to some extent. This can be concluded from Tables 11 and 12 and Figure 11. For example, Table 11 indicates that the green concepts and practices were often emphasised in lectures, assignments, and research. Similarly, the participants reported that green aspects were emphasised in practical and theory work, and in examinations (see literature review section). The findings are supported by Ivanov, Ivanova & Iankova (2014) who, in their study in Bulgaria, also found that hospitality establishments integrated environmentally friendly routines regardless of their category, size and product in training. Interestingly, Ivanov, Ivanova and Iankova found that workers in hospitality establishments applied green practices for the tourists and consumers (for example, they had a policy for energy saving, water cleaning and saving, use of bio products, and so on). This implied that green education and training was necessary both for the workers and customers. However, in the current study, it should be observed that these practices were not overtly reported as green but were just topics

infused in the curricula, which did not stand on their own. Therefore, green practices were not directly taught but were embedded in other areas of content. Consequently, there is need to explicitly include topics on greening in the curricula.

As to which component was emphasised between theory and practice, the findings showed that both components were emphasised (see Table 12). These findings are supported by Hweng et al., (2015) whose study in Hong Kong found that the university curriculum emphasised on the acquisition of green practices and content knowledge both theoretically and practically (see literature reviewed). It was learnt that students were made to go through the preparation of the rooms, ensure there was clean air, energy serving lights were well lit and ensured that the quality of water was of standard according to the hotel ratings and these aspects were examined. The findings are also supported by Domingo (2019) whose study established that the practical aspects of the green practices carried more marks than the theory examinations which made the students to be more practical than other university graduates. Therefore, based on the findings, this study can then argue that green concepts and practices were integrated and taught to a certain extent to students who were training in tourism and hospitality industry in the Zambian institutions.

Daisi (2018) stated that the sustainability of the tourism and hospitality industry is dependent on the hiring of highly trained graduates who have learnt the art of hospitality and they are the ones who come to plan and ensure that the hotels are eco-friendly and conform to international practices on green conservation (see literature review section). In Mexico where his study was done, Daisi noted that employers preferred graduates from specific universities because they had the skills, knowledge and content which was needed for the continuous cleanliness and provision of world class green responsive accommodation and pleasure resort. Undoubtedly, the preferred universities were those which had their curricula designed to build students with the knowledge they required to have the market in the tourism and hospitality industry so that their students could remain relevant to the industry. Similarly, training institutions in Zambia need to make students learn green practices which are key in making them remain useful resources to the tourism and hospitality industry in Zambia and beyond.

The findings of the study established that green concepts and practices existed in the tourism and hospitality curricula in Zambian training institutions in an implicit or covert

way, through course content such as wildlife conservation. The study established that green practices are those actions which helped in protecting ecosystems through wildlife conservation. The study by Hweng et al., (2015) agrees with this finding (see literature review section) that, when it came to wildlife conservation, universities in Hong Kong asked each student to design a plan on how a hotel can exist within the ecosystem and remain sustainable without disturbing the natural environment. After that, the curricula required that the students participated in implementing their plan to see how it worked; the students were also required to take internship in hotels so that they had a feel on how best to protect the environment in the hospitality industry. Zambian training institutions could learn from this example from Hong Kong.

The study also revealed that waste management was among the green concepts and practices that existed in the tourism and hospitality curricula in the Zambian training institutions. Waste management was described in statements such as garbage disposal, maintaining cleanliness, safe disposal of waste, avoidance of littering and control of sewerage. Receiving training in these aspects of waste management will help graduates of training institutions to implement, in their places of work, actions described by Howard (2014), such as reducing disposal of furniture by fixing them, donating them to charities or selling them (see literature reviewed). The findings are further supported by Green (2004) who observed that management can also lessen expenses radically through avoiding wasteful-packaged products. In this regard, the hotels can ask suppliers to supply products in least wrapping materials and can ask the same suppliers to pick up packaging materials after unwrapping. Food waste can be prevented if management is mindful in over-preparation, table scraps, cooking losses, and packaging failures. The head chef of green hotels can be trained and can contribute significantly to reducing food waste in an eco-friendly hotel. In this regard, the Zambian tourism and hospitality training institutions have to be urged to enhance the training of students in green concepts and practices so that the country can be a better place to visit, stay and relax from as these practices even extend into individual homes.

The other green topic which existed in the curricula was the changing of beddings often and washing them often. This action was seen as a strong demonstration of environmental sustainability and was closely related to sanitation. The other topic which was understood as green practices was environmental cleanliness. Cleanliness meant that the hotels,

lodges and guest houses were supposed to maintain high standards of sanity and cleanliness as one way they were contributing to the ecosystem. These findings are in tandem with Koge (2018) (see literature review section) whose study in Nigeria found that the hospitality curriculum was all about teaching practices such as washing the rooms, beddings, curtains and kitchen utensils. Others topics included front office practices, making the facility habitable, food preparation and also customer care. Other curriculum content included topics on environmental practices like disposal of waste, sewerage contents, plastic and glass related materials which remain harmful to the environment even after many years. Such graduates provided basic services because their diploma was meant to be the basic service providers and not to be the managers. Therefore, the topics on green concepts and practices which existed in the tourism and hospitality curricula in the Zambian training institutions were similar to those taught in institutions in other parts of the world.

Findings of the study established that green practices such as conserving of energy were among the practices taught. Conserving of energy meant switching off bulbs and electrical appliances when not in use, using renewable energy and avoidance of use of eco-harmful gases (see literature review section). This resonates with Salv's (2000) findings that people can unlearn old ways, learn new information, re-learn and reinforce existing knowledge and skills, and most importantly have time to think and consider what new options can help them improve their effectiveness at work. Effective training in the tourism and hospitality curricula conveys relevant and useful information that informs participants and develops skills and behaviours that can be transferred back to the workplace. Topics like energy conservation prove that green concepts and practices exist in the tourism and hospitality curricula in the Zambian learning institutions, but not as an area of focus and not as standalone topics.

The study further revealed that the other green concepts and practices which existed in the tourism and hospitality curricula for the Zambian training institutions were recycling and reuse. Participants, particularly lecturers, understood recycling as an important aspect of green practices (see literature reviewed). These findings are in line with Ibrahim (2019) whose study established that Turkish universities taught the recycle and reuse practices which provided the basic concepts on the extent to which such practices can be used. However, Ibrahim's study also found that the knowledge was only theoretical instead of

being practical. The study concluded that there was need for the students to be equipped with both theoretical and practical knowledge, like universities of the European Union did. These are some of the curriculum challenges which are supposed to be attended to in the Zambian context.

With regard to the prevailing situation on the teaching of green concepts and practices in the Zambian tourism and hospitality training institutions, findings in Figure 8 showed that the majority of the respondents 77% said that no green components had been covered in the curriculum from the time that they started doing their respective courses to the time of the study while the minority 23% said that they had covered green aspects in their respective courses. It can be concluded that the prevailing situation was that no green concepts and components had been taught in the many of the courses they followed. This could indicate a lack of presence of green components in the curricula of these training institutions. Graci (2009) agree with these findings by contesting that the need to address environmental problems has become an important point of interest for businesses and their managers throughout the world hence this has been advocated for to be taught in the hospitality universities. Making a contribution to solving these problems is often referred to as greening and its practices have been key in making the contents be appreciated hence the need to have them be taught in the hospitality training institutions. The concepts which were demanded for in this case can be the full courses on green energy, bio products, methods and technological recycling and natural resource management among others. These have not come out as independent topics hence the need for their explicitly teaching and come out so that students can appreciate their presence

The foregoing discussion is in tandem with the stakeholder's theory. Mainardes et al., (2011) argue that tourism in each of the courses is related to hospitality management and how to improve or benefit the hospitality industry should be well planned to that effect. These programmes are usually professionally based and have some type of orientation or affiliation to one or two professional hospitality associations. External influences such as practitioners in the business community often drive most of the changes that take place in the curricula. This type of approach has developed in locations that are not tourism based but environmental responsive so as to make the industry viable and suit the changing world. They have developed where industry is the primary product, and the hospitality component has developed to service a wider industrial economy. This theory

builds this study in the manner that the tourism industry is supposed to evolve and adopt new green concepts and practices, create a curriculum that will respond to the need for conserving energy, waste management and reuse and recycle.

6.2 Lecturers' and students' understanding of green concepts and practices

As indicated in section 6.1, the second scenario was that some institutions did not integrate aspects of greening in their curricula as seen in table 14. This section, has discussed the lecturers and students understanding of green concepts and practices integrated into the curricula of tourism and hospitality training institutions of Zambia. Where tourism and hospitality training institutions failed to incorporate green concepts and practices in the curricula, one of the reasons was because they did not have qualified lecturers to teach those components. According to Alsubaie (2016), better teachers support better learning because they are most knowledgeable about the practice of teaching. As such, changes in curricula require teachers to possess the skills and knowledge to implement curricula with fidelity (that is, the degree to which teachers or stakeholders abide by a curriculum's original design when implementing it) (Wiles & Bondi, 2014). Likewise, the American Institute for Research (AIR, 2016) state that adopting new curricula requires teachers to feel confident in the delivery and purpose of the materials they use in order to ensure accurate implementation. Indeed, adding green concepts and practices to curricula asks for more human resource which is qualified and understands what has to be taught. This reason leaves the Zambian tourism and hospitality training institutions in a tight position since they do not have enough human resources to implement some of the new programmes, hence the programmes may not be taught. The spiral or multiplier effect of such a situation is that many students leave these institutions half-baked and, therefore, face challenges when finding jobs in today's competitive market. As aptly put by Asirifi et al., (2014) and Johnstone (1994), the graduates may fail to meet the expectations of potential employers since there is a gap between training of students in hospitality and the expectations of the potential hospitality companies. Similarly, Fiselier, Longhurst, and Gough (2018) assert that successful embedding of ESD requires providing staff with the resources and capabilities to engage with the concepts of ESD within the context of their own discipline. Lochner, Conrad, and Graham (2015) indicate that teachers are central to whether a curriculum is delivered consistently, effectively, and with efficacy to enable the support of student progress and growth.

Another reason for not integrating green concepts and practices in the curricula was because management did not consider teaching green concepts and practices as very important compared to other typical tourism and hospitality content. Johnson (2001) argues that, to achieve curriculum change, which is challenging and sometimes controversial, institutional leaders must work with diverse constituencies to achieve the best balance of needs, desires, appropriate assessment, and instruction. Therefore, once a new curriculum is disseminated, principals are required to help its interpretation for teachers (or, in the case of this study, lecturers) to successfully implement the documented ideas.

The research findings also indicate a number of reasons why both lecturers and students did not realise that aspects of greening were integrated into the curricula. The first is that green concepts and practices were present in the curricula only latently. This means that the topics were not included intentionally in the curricula as green concepts and practices but, rather, as by the way topics (for example, as environmental management topics) hence were not focused in the teaching. The other reason is that green aspects were theoretically present but practically absent. This means that, although the topics were present in the syllabus, they were not given attention because some lecturers were not familiar with the concepts and did not practically cover them due to lack of knowledge.

The study further found that lecturers and students did not understand what green concepts and practices were hence could not have reported them to be covered in the curricula. The study found that some lecturers and students reported that the green concepts and practices were somehow existent or while others stated that the aspects did not exist. Similarly, some lecturers and students reported that green aspects only existed as a by the way thing, while others described them as practically absent but theoretically present. Again, it is clear that green concepts and practices were present in the curricula, but not visibly as content for teaching and learning (see literature reviewed). This finding is consistent with Wade (2014) whose study found that the colleges had topics spread across the curriculum in different subjects which made reference to green concepts but such topics did not come out as stand-alone topics on green concepts. As a result, the students did not realise that their curriculum had such topics which they learnt. In addition, the study noted that the green aspects were too shallow to be considered as curriculum content as they never brought about significant change in the industry and

practices hence the participants thought they never taught them (on the part of lecturers) or learnt them (on the part of students). This brings to the attention of the researcher that green concepts and practices were present indirectly and the role of the institutions is not to hide the concepts and practices in other contents, but to bring them out as areas of concern. This will help both the lecturers and students to understand the content clearly.

The findings further established that green concepts and practices existed in the curricula but not as a main focus of the curricula. The study found that salient elements of green aspects were imbedded in the curricula but were subsidiary to the traditional content. The participants believed that topics such as waste management were typical examples of topics which covered green concepts and practices although when these topics were taught, protecting the environment was not the focus (see literature review section). In this regard, Dehli (2017) as well as curriculum theory argue that curricula need to be revised regularly so that courses are planned to suit the needs of the communities and industries of today. He states that the hospitality curricula in most third world countries have remained static in the knowledge they offer as their hospitality industry is rather still behind where technology is concerned. Dehli's assertion helps to explain, to a certain extent, why aspects of greening are latent in the curricula. He explains that, in third world countries, training institutions feel that training students in practices which are not used in their facilities is not important until such facilities are brought into the industry. Therefore, the green contents are hidden in other topics which make the institutions and students argue that they do not learn the green practices when in fact they do. There is need therefore, for hospitality curricula designers such as TEVETA and other private universities to tailor their hospitality curricula in such a way that green concepts and practices exist as independent topics and even programmes which should impart the relevant and needed knowledge into the students so that they become useful in the community and tourism and hospitality industry.

As much as the green concepts and practices did not overtly come out in the usual courses in the tourism and hospitality training programme, the study found that the green concepts and practices were important elements which are supposed to be integrated and taught in the tourism and hospitality training institutions. They are part of the employability skills that are required by students and employing organisations. Therefore, institutions had no reason for not integrating them as important areas of focus in the curricula. In Rahman's

(2010) study, he found that training institutions divided skill into two broad categories: generic skills and hospitality-related skills. These courses were grouped according to functional and concentration areas, and they were not integrated into the curriculum but were taught as content for other topics. According to Rahman, this brought about misinformation and the graduates were less adequately prepared for work after graduation. In the study conducted by Asirifi et al. (2014) in Ghana, managers of the hotels visited were of the view that most of the courses taught in tertiary institutions were theoretical and that the curricula needed to be driven by current industrial needs. Asirifi and her colleagues concluded that tourism and hospitality training needed a well-structured, articulate and a well implemented hospitality curriculum to achieve a meaningful development. They continue to state that courses that were taught should be practical and skills oriented, to make students creative and innovative.

At this stage, we begin to interrogate curriculum theory. What is the best way that these training institutions should design their curricula? Are the training curricula in these institutions designed in accordance with Young's curriculum theory? Do the curricula meet societal needs in as far as greening is concerned? Curriculum theory then, could be used to analyse the knowledge students are learning, and to come up with the best alternatives to existing forms. The Zambian tourism and hospitality industry has the obligation to ensure that they adopt curricula which teach the right things so that their graduates can become candidates for both the local and world labour market, unlike the current situation. This is in tandem with the curriculum theory which advocates for the integration of new ideas into the existing curricula and regular revision of the existing curricula in order to respond to the needs of modern society. It is also in tandem with the stakeholder theory which stipulates that company leaders must understand and account for all of their company's stakeholders. However, just as a company should consult its stakeholders about their needs, revision of curricula should be done in close collaboration between the educators and the tourism and hospitality industry so as to harmonise the expectations that students leave training institutions knowing industrial expectation (Kabii et al., 2020).

The findings that green concepts and practices were latently present in the curricula but were not taught as green concepts and practices are in tandem with Wood (2003). Wood asserts that while most studies have identified competencies and skills of tourism and

hospitality, little has been done to portray where these skills are best learned and ranked them accordingly. Furthermore, since training institutions used the prescriptive model of curriculum design and implementation, the lecturers applied scripted activities in the manner intended by the curriculum developer. A study conducted by the National Centre for Education Statistics (NCES, 2017) on curriculum fidelity and professional development when implementing an English language reported that only 30% of the teachers recorded consistent fidelity of implementation, as prescribed by the curriculum developers. Whereas the descriptive curriculum responds to learner needs by creating an environment where the learner can discover and construct objects, prescriptive models are more concerned with the ends rather than the means of a curriculum. Unfortunately, the prescriptive, TEVETA curricula in tourism and hospitality training institutions did not provide specific green concepts as topics and subjects which were to be done in order to make the students understand what they were being prepared for in a more direct and not indirect way. Better curricula can, therefore, be developed and learning opportunities improved by following a more descriptive approach. Young (2014) asserts that if one wants to acquire specialist knowledge and are serious, they will go to an institution with a curriculum that includes what they want to learn and teachers who know how to teach.

6.3 Components of Green Practices That can be integrated at Various Levels of the Curricula

Various components of green practices can be integrated at different levels of the curricula in the tourism and hospitality training institutions. According to Ruhanen et al., (2015), curricula for the 21st century should include courses to do with environmental preservation, renewable energy resource management, and eco-friendly infrastructure management with conservation. Therefore, as portrayed in Figure 10, the components that can be integrated into the curricula of the tourism and hospitality training institutions can be divided into three groups, namely green transport and green buildings; green technology; and conservation of natural resources. Transportation is one of the biggest drivers of carbon dioxide (CO₂) emissions and also has the highest growth in CO₂ emissions of any industry sector. By implementing green building strategies, these high intensity buildings become efficient, cost-effective and sustainable transportation facilities that have a significant positive impact on the economy, environment, wellbeing and productivity. Therefore, Posch and Steiner (2016) are of the view that if students are

exposed to courses which will make them become creators of knowledge rather than just users of knowledge, they should be able to deal with a matter like this one. This argument is further extended to research when Ruhanen et al. (2015), Bramwell et al. (2017), and Sharpley (2020) argue that, while early research focused on theorising sustainability principles, more recent studies should express the need to apply sustainability principles in practice, with the broad involvement of stakeholders.

The study further found that the second group of components of green concepts and practices which can be integrated at various levels of the curricula should include renewable resources. These components were said to be very important in the sense that they could make students become more aware of green practices and that could save resources and permit tourism and hospitality institutions make more profit as well as other benefits which could come about due to green behavior (see literature review section). These findings are supported by Jurowski and Liburd (2001) who found that the integration of the principles of sustainable development is critical because, as one of the world's largest industries, tourism and hospitality should actively contribute to implementing the environmental and socio-cultural principles of sustainable development. The knowledge of renewable resources should be embedded in the curricula so that the industry can conform to the current debate on climate change and prudent management and consumption of natural resources as much as profits are made. With the inclusion of such teaching content, the tourism and hospitality course will be able to meet international standards where training is concerned.

The third group of green concepts and practices which can be integrated at various levels of the curricula established in this study include wildlife conservation, conservation of trees, soil conservation, aquatic conservation, sustainability, mineral conservation and environmental air conservation. These could together best be represented as conservation of different natural resources. As early as 1965, the International Union for the Conservation of Nature (IUCN) (1968) had noted and agreed that the conservation of nature and natural resources was desirable and was a necessary way of living, and that this could be achieved through training in conservation. Conservation education is the study of man's intelligent use of his natural environment through the development, management, preservation, and renewal of natural resources for his material, cultural, and aesthetic needs to benefit present and future generations. It involves, among other things,

techniques for enhancing natural resources, marketing environmental messages, using mass media, developing partnerships for conservation, and designing on-site programmes for natural areas and community centres (Jacobson et al., 2006).

The finding of this study that various components of green practices can be integrated at different levels of the curricula are in agreement with Herold (2015) whose study of modules for a university revealed that the modules incorporated within SE had titles which were varied and distinct (see literature reviewed). He, however, discerned three main thematic patterns, namely environmental or social issues of the environment which included pollution, garbage disposal, water treatment and environmental conservation. According to Herold, these course contents should spread from the first year up to the final year of study, and practicals should always be done to make sure that the learners know what they are to do in the industry.

The educational needs of tourism and hospitality students are truly unique. The years students spend in training institutions are highly formative not only for behaviour patterns but also for their enduring, lifelong adult life. Any changes to curricula should, therefore, consider the wellbeing of students because they are the products of the restructuring process; they are directly affected by the reform, as they need to be 'marketable' in society (McClean, 2003).

That students are important stakeholders in the education process makes it necessary that they should be knowledgeable about the contents of the curricula. In the context of this study, it means the components of green practices which were integrated at various levels of the curricula should have been known to the students. Table 13 however shows that a larger number of student participants (47.3%) indicated that they were not sure that green components were included in the curricula while another 10.8% said they were not covered. From these findings, I conclude that the orientation of most tourism and hospitality programmes in Zambia is from wider arts, social-sciences, leisure, environmental studies and general business degree, and not really Environmental or Sustainability Education. Thus, specific SE courses need to be included in the tourism and hospitality curriculum if they are to make an important mark in students' lives and the community at large. I, therefore, advocate for the redesigning and remodeling of the tourism and hospitality curricula and pedagogy in order to train practitioners who can

provide an efficient care service to tourists, communicate better with guests, be critical thinkers and life-long learners, as well as work sustainably for the benefit of the community. It is critical that students are also involved in curriculum formulation as they will have reservations about innovations which might influence their present and future careers.

In determining the components of green practices which can be integrated at various levels of the curricula, the study also established what components had already been added. Three main findings were noted; firstly, that confirmation of inclusion of green concepts and practices in the curricula by students depended on the programme of study; and, secondly, on the year of study. Concerning the programme of study, most of the students who confirmed that there were elements of greening in their programmes were those doing undergraduate programme such as food and beverage, clubs, lodging, casino, events, and tourism and travel (see literature review section). This finding is in line with Sammalisto (1999) who noted for Swedish universities that greening was limited to the core subjects only. For programmes which did not have elements of greening, therefore, their curricula needed to add new topics to the teaching content to meet the new trends in the provision of the tourism and hospitality education in Zambia.

Concerning inclusion of content according to year of study, the third-year group (at 31%) was the clearly distinct group (apart from 'others' at 57%) to indicate that their courses had elements of green concepts and practices. The lowest group were the fourth-years at 9%. To these findings, Jurowski and Liburd (2001) indicated that environment or greening related topics were more prominent within the curricula from first year up to fourth year. This meant that there was a need for tertiary-education institution to embrace sustainability from a more holistic position unlike teaching simple components of the main topic. The topic was also approached from a leadership or management and governance perspective instead of green concepts and practices coming out as one and be emphasised to that effect. The curriculum should spread itself from first year to fourth year with green concepts and practices so that they are better understood and used in the Zambian context.

Chawla and Manhas (2015) claim that effective sustainability curricula can impact on behavioural intentions positively. They further noted that such curricula can only be effective if sustainability is integrated through all aspects of the curricula and the contents

spread to every semester. They also suggest that institutions should design a full course of green and SE to ensure that all students have the latest knowledge. In this study, respondents suggested a course like the Keep Zambia Clean, Green and Healthy Campaign. This is supposed to be a special topic or course in the students' curricula. The respondents felt that this would help students have green behaviour in mind in all their actions even as they serve as professionals. Further to this, the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2017b) suggest a whole-institution approach which should incorporate sustainable development not only through the aspects of the curriculum, but also through an integrated management and governance of institutions, the application of a sustainability ethos, engagement of community and stakeholders, long-term planning, and sustainability monitoring and evaluation. This is a significant outcome, implying that hospitality management curricula need a fundamental change to embrace sustainability. The large carbon footprint of the tourism and hospitality industry inherently shows that the training curricula and materials used are not effectively mainstreamed with sustainability and green aspects to better equip graduating practitioners with sustainability principles and pedagogical competencies as broadly recommended in the National Policy on Environment (NPE of 2007; Moonga & Chileshe, 2020).

6.4 Curriculum Framework That Can Be Used to Integrate Green Components in the Curricula

The study has established that green concepts and practices do not stand out clearly/not focused in the current curricula being used to train the human resource for the tourism and hospitality industry. The training has not effectively skilled the trainees in sustainability concepts and practices that would help them reduce unsustainable practices when they join the industry. This makes the curricula deficient as they do not enable students grasp such content. Chawla and Manhas (2015) indicated that the tourism and hospitality management curricula needed a fundamental change to embrace sustainability and green practices throughout the course. Therefore, the study developed a curriculum framework for content integration at different levels of learning in the tourism and hospitality training institutions to remodel the curricula with green concepts and practices. It is further indicated that the curricula for certificate and diploma programmes should include green courses like Introduction to Environment and Sustainability Education;

Natural Resources and Resource Conservation; and Waste Management as compulsory courses distributed across semesters.

The bachelor's degree should start with a broad base of requirements and continue on to more specialised studies. It is therefore, noted that the curricula at this level should contain content on Renewable Resources; Wildlife Conservation; Green Transport; and Green Building. It is further proposed that the content should include practical components on greening, such as recycling processes so that institutions can implement such green practices from a practical point of view.

At master's degree level, the programmes should include topics on Green Technology. At this level, students should also engage with a research project. The degree should offer an in-depth emphasis on a particular field within sustainability, and/ or it can give students the leadership edge to achieve an advanced role within a tourism and hospitality organisation. It should help the graduates to create change and play an active role in integrating sustainability in tourism and hospitality business.

Sustainability drives business and innovation, as well as operational efficiencies. I therefore propose that, at Ph.D. level, students should engage in research on any topic in sustainability. This degree should offer students the highest level of specialisation a discipline can offer. It should prepare future sustainability innovators with interdisciplinary research skills, management approaches, strategies and processes to realise sustainable outcomes with business, government and third sector organisations. By the end of the PhD programme, students will have become independent researchers with expert knowledge on the technical, economic, social and policy aspects of environment and sustainability. Additionally, a Ph.D. programme should offer students the opportunity to work across the full breadth and depth of theoretical and applied approaches to sustainability.

The components and topics suggested in the sustainability training curriculum framework (See Figure 14) are important because the knowledge has to be utilised in the tourism and hospitality industry. They also ensure that the students acquire the needed skills to protect the environment and respond to climate change issues (see literature review section). This development is supported by Barber et al., (2011) whose study revealed that all stakeholder groups in their study demonstrated a 'sincere' interest in environmental

sustainability; the major differences among them was at what level different topics could be integrated into the sustainability programme.

The study findings also present the sustainability curriculum framework which should have courses that should teach components of green building (see literature reviewed). These findings are supported by Bader (2015) who support the attributes of the growing importance of sustainable practices to the changing perceptions of responsibilities among managers, rising operational costs, and growing consumer demand for sustainable products. When the green building and green concepts are well embedded/remodeled into the hospitality curriculum, it will make the hospitality industry become relevant and productive as pollution and its costs with energy use will reduce. These aspects in the curriculum will enable the new curriculum to meet the international aspirations of the hospitality industry and make the human resource be knowledgeable than the products of current curriculum.

6.5 Chapter Summary

The chapter has provided a detailed discussion on the findings of the study. The major findings are in line with the research objectives, as follows: to ascertain the existence of green concepts and practices in the curricula of tourism and hospitality training institutions of Zambia; to assess the trainers and trainees' understanding of green concepts and practices; to suggest aspects of green concepts and practices that could be integrated at various levels of the curricula of training institutions; and to develop a sustainability curriculum framework that could be used in integrating green concepts and practices into the curricula of tourism and hospitality training institutions in Zambia. In relation to the first objective, this study has found that, for some training institutions, green concepts and practices were fairly integrated into their curricula although they were not explicitly indicated as aspects of greening. For other institutions, the concepts and practices were completely missing. Since green concepts and practices have become important for the tourism and hospitality industry, there is need to integrate them in all curricula of the tourism and hospitality training institutions in the country. The next chapter will present the conclusion and recommendations of the study.

CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS

7.0 Introduction

The chapter summarises the findings of the study on sustainability education in tourism and hospitality training institutions and makes recommendations thereafter. In addition to that, the chapter elucidates how the gap in green concepts and practices that was raised in chapter three has been filled by this study. Recommendations of the study and the theoretical and practical implications of the findings are also included. Development of a sustainability curriculum framework is provided towards the end of the chapter.

7.1 Conclusions

Tourism and hospitality training plays an important role in equipping students with skills required for employment after they have graduated. In the present development context which emphasises sustainable development, institutions can equip students with the skills required to access the world of work by improving responsiveness to changing skill demands by companies. Implementing ESD (through inclusion of green concepts and practices in curricula) can serve as an enabler of transformation in tourism and hospitality institutions. In effect, ESD in these institutions provides an enhanced tool to equip students with the skills needed in the changing world of work, including the knowledge and competency requirements to make the transition to green economies and societies. ESD is, therefore, essential for institutions to educate and train individuals on these requirements.

It can be said that integration of green concepts and practices in the curricula of tourism and hospitality training institutions was possible. The findings of this study yielded two scenarios. The first one was that some institutions had aspects of greening in their curricula although this content was not explicitly integrated as green concepts and practices. The second position was that the concepts and practices had not been integrated into the curricula at all. Additionally, even in those institutions where some few aspects on green content appeared in the curricula, it was not an area of focus during the lectures. It can, therefore, be stated that there is need to consolidate the sustainability curricula in tourism and hospitality institutions. It appeared that sustainability education remained an afterthought or an add-on in many institutions. If hospitality educators were to be in step

with where the industry appeared to be with regard to sustainability, hospitality courses and curriculum needed to include sustainability as a more prominent focus. Based on all these observations in this thesis, it can be noted that there is need to rethink sustainability education, as there is evident need to reassess and remodel what was being taught and learnt in the tourism and hospitality institutions in Zambia. Overall, these findings justify the need to integrate green concepts and practices from the curricula level through the current conceptual framework, which proposes an implementation framework for integrating sustainability education through the tourism and hospitality education system. This can be taken as a process of building capacity in the Zambian tourism and hospitality industry to contribute greatly to environmental protection and workplace sustainability.

7.1.1 Extent to Which Green Concepts and Practices Were Integrated into the Curricula

The first research question was intended to elicit information on the extent to which green concepts and practices were integrated into the curricula of tourism and hospitality training institutions. Findings of the study established that the green concepts and practices existed in the tourism and hospitality curricula offered in some training institutions through topics on wildlife conservation, ecosystem protection, waste management, sanitation and changing of beddings, conservation of energy and water, recycling and reuse. In some institutions however, the study did not find any evidence of green concepts and practices in their curriculum. The study further established that green concepts and practices were taught at a lesser extent (unintentionally) compared to the traditional content taught by tourism and hospitality training institutions. The majority of the respondents stated that no green components had been covered in the lessons from the time they started doing their respective courses to the time of the study. It can, therefore, be concluded that the prevailing situation in these institutions was that no green concepts and components were not considered core to the training of tourism and hospitality workers in these institutions.

7.1.2 How lecturers and learners understood Green Concepts and Components in the Curricula

The second research question was about how the trainers and trainees understood green concepts and practices. Several reasons can be advanced for the status quo. For

institutions that had aspects of greening in their curricula, the content was not explicitly or intentionally included as green concepts and practices but as by-the-way content making the curriculum not clear about sustainability aspects hence the failure for the trainers and trainees to clearly understand green aspects. The position was that green concepts and practices were present in the curricula but latently (for example, as environmental management). Furthermore, some lecturers felt that they were not competent (or knowledgeable) to teach the topics as they had not covered them during their own training. Additionally, some lecturers did not perceive the topics as important content to teach in their courses. In this way, we can say that green aspects were theoretically present but practically absent. This means that although the topics were present in the syllabus, they were not given a lot of attention because instructors are not familiar with the concept of sustainability.

For institutions where the content was completely missing, the reason for not integrating green concepts and components in the curricula was because management did not consider teaching the content as very important compared to other typical hospitality content. In these institutions, participating students and lecturers felt that green aspects were important and would like them to be integrated but the problem was with institutional managers who did not prioritise sustainability education resulting into lecturers and students not considering them important and hence not prioritising them in the teaching and learning.

7.1.3 Green Components that Could Be Integrated in the Curricula

It was established that participants felt that green practices were important to the curricula of the trainees in tourism and hospitality training institutions. The participants indicated that the following topics could be integrated as green concepts and practices: green transport, green buildings, green technology and renewable resources. Other topics suggested were wildlife conservation, conservation of trees, soil conservation, aquatic conservation, sustainability, mineral conservation and environmental air conservation. The participant felt the topic “Keep Zambia Clean, Green and Healthy Campaign.” Should be made compulsory. It is supposed to be a special topic or course in the student’s curriculum.

7.1.4 Sustainability Curriculum Framework That Can Be Used to Integrate Green Components in the Curricula

The study has established that the current curriculum being used to train the human resource for the tourism and hospitality industry is not effective, either because the green concepts and practices are absent or because they have been integrated implicitly or covertly. In both scenarios, the curricula were not enabled to make students of tourism and hospitality grasp the gist of sustainability and use these skills at their places of work. From the responses received, the study developed a curriculum framework for the integration of greening aspects across curricula in the training institutions (see figure 14 below). The basic curricula for certificate and diploma programmes should include greening courses like Introduction to SE; Conservation and Natural Resources; and Waste Management as compulsory courses appearing in each semester. For a Bachelor's degree, the programme should go further and integrate practical green transport and recycling processes, and to implement such practices from a practical point of view. At bachelor's level, the programme should include topics on wildlife conservation, better practices of water treatment, and renewable resources. It should also include research in such knowledge and the institutions in this case should then invest in human resource development at lecturer level and at equipment level. At master's level, the programme should include green technology and students should engage with a research project, while the PhD level should be dedicated to research into a sustainability topic, to generate new knowledge and to make students independent researchers. The mainstreaming of such 21st century courses and programme contents will effectively skill the graduating practitioners with sustainability principles and pedagogical competencies that would help them reduce unsustainable practices when they join the industry.

Sustainability curriculum framework for integrating green concepts and g practices into the tourism and hospitality curricula in Zambia

Figure 14 shows the curriculum framework that can be used to integrate green concepts and practices into the curricula of tourism and hospitality training institutions. The Topics in the framework are responses from the respondents, which the study has used to come up with a ready to use tool.

S/N	Level of Education/ Programme	Strategies/ Methods	Topics	Resources/ Materials	Expected Outcomes	Goals	Key Stakeholders
1	Diploma	<ul style="list-style-type: none"> • Lectures • Discussions • Excursion • Projects • Practicals 	<ul style="list-style-type: none"> • Introduction to SE • Natural resources conservation • Sustainable consumption 	<ul style="list-style-type: none"> - Teaching and learning materials 	<ul style="list-style-type: none"> - Reduction of unsustainable practices in the hospitality industry. 	<ul style="list-style-type: none"> - Skill the graduating practitioners with sustainability principles and pedagogical competencies 	<ul style="list-style-type: none"> - Trainers and trainees - Hospitality managers - Regulatory bodies - Curriculum dev. experts - Policy makers - Hotel operators - Customers
2	Bachelors degree	<ul style="list-style-type: none"> • Lectures • Tutorials • Excursions • Projects • Internship • Fieldwork 	<ul style="list-style-type: none"> • Renewable resources: <ul style="list-style-type: none"> (a) Water (b) Wind (c) Geothermal • Energy management • Waste management 	<ul style="list-style-type: none"> - Water bodies - Energy sources - Waste management areas 	<ul style="list-style-type: none"> - Prudent and sustainable use of water and energy resources as well as integrated waste management skills - Water and energy efficiency in hospitality industry 	<ul style="list-style-type: none"> - Skill the graduating practitioners with sustainability principles and pedagogical competencies 	<ul style="list-style-type: none"> - Managers of T&HTI - Curriculum dev. experts - All staff and trainers of T&HTI - Municipalities
3	Masters degree	<ul style="list-style-type: none"> • Lectures • Internship • Research 	<ul style="list-style-type: none"> • Green technology • Research project • on green aspects 	<ul style="list-style-type: none"> - Green transport - Research funds and skills. - Equipment for training 	<ul style="list-style-type: none"> - Good understanding and skills on green concepts and practices - Research engagements on SE 	<ul style="list-style-type: none"> - To generate new knowledge and to make students independent researchers 	<ul style="list-style-type: none"> - Managers - All staff and trainers of T&HTI - Proprietors - Curriculum dev. experts - Policy implementer and designers
4	PHD	<ul style="list-style-type: none"> • Research in sustainability education 	<ul style="list-style-type: none"> • Field work • Report writing 	<ul style="list-style-type: none"> - Research skills - Research funds 	<ul style="list-style-type: none"> - Hospitality industry's transition to a green industry 	<ul style="list-style-type: none"> - To generate new knowledge and to make students independent researchers 	<ul style="list-style-type: none"> - Policy designers - Trainers and staff of T&HTI - Curriculum dev. expert - Hotel operators

Figure 14: Curriculum framework for integrating green concepts and practices into the curricula of tourism and hospitality training institution

From the framework, it is clear that there is need to have a needs assessment regarding the type of concepts and green practices, which have to be integrated at a given level of the tourism and hospitality curriculum. This will enable the implementation of the concepts and green practices to be realised in the curriculum development process, adopted by the regulating bodies and learning institutions and at the same time conducting assessment, monitoring and evaluation regarding professional certification. All these aspects will then result into management of implementation through regular inspection which will lead to the realisation of increased value added to the curriculum in a given field. Combining all these concepts will lead to ensuring that there is environmental sustainability in the tourism and hospitality sector. The development of such a curriculum framework will then lead to institutions teaching practices like zero waste, efficient resource usage, low emissions, renewable energy practices, green building initiatives, efficient water harvesting practices and sustainable consumption among others. This framework will enable the learning institutions to be guided on how they can make their students compete in the tourism and hospitality industry through the skills they learn in the institutions through the planned curriculum. This will then be a game changer in the Zambian hospitality industry through new adoption of the contents for a revised curriculum.

7.1.5 Theoretical Implications of the Study

The findings of this study are consistent with the theoretical framework presented in Chapter Two. In the first place, this study had established that there was an evident content gap in the current curricula of tourism and hospitality training institutions, which warranted an investigation, as it was unclear what, was being taught and how it was being learnt. It was also clear that there was a lack of dialogue among various stakeholders to ensure consistency and validity within the curricula and for serious pedagogical discussions, defining the focus and boundaries of SE. If SE was to be effective, there was a serious need for key stakeholders, such as industry professionals, students and academia, to address such issues and to create a coherent curriculum, designed to address the needs of all prime stakeholders.

The stakeholder theory makes this study come to realise that the provision of education, training and curriculum changes is not isolated from the stakeholders in that sector. This study has demonstrated that stakeholders should create a dialogue with the groups that

influence the people with the changes and resources needed to survive. In order to see environmental shift, there is need for the training providers and stakeholders to realise that their input brings about change in behaviour regarding the knowledge needed to be acquired and environmental shift should occur between the government and the people benefiting from the planned curriculum in institutions. The theoretical benefit of this study is that the curriculum theory has helped to identify the curriculum challenges which needs improvement. The institutions are then equipped with the right curriculum to promote the teaching innovations which are coming on in the industry. Through the supply of both human and environmental resources, the industry should train the right human resource who should prudently man the natural resources in the natural environment and promote green practices. This is what the study on the one hand was designed to promote and investigate.

7.1.6 Implications for Practice

This study was a goal-oriented needs assessment that examined the extent to which the hospitality industry was aware of and practicing the environmentally sustaining practices that could contribute positively to environmental protection and sustenance. The study focused on tourism and hospitality institutions because environmental interventions through environmental education can have sustainable gains.

Secondly, the hospitality industry serves as a powerful agent of environmental sustainability. Findings from this needs assessment have justified the establishment of an implementation framework that can be used to integrate green practices into the curriculum. The implementation framework is illustrated by the conceptual framework. However, it is with scientific conviction that integrating environmentally sustaining practices through educational curricular, can diffuse the practices up through the industries itself. Green concepts and practices should be integrated, and then implemented through curriculum development bodies which are responsible for implementation, examination, monitoring and certification. This framework is most likely to increase the contribution of the hospitality industry to overall environmental sustainability and the fight against negative effects of climate change.

The findings of this study have practical implications. In the first place, the knowledge action gap needed to be addressed because it had implications on the implementation of the sustainability-training programme in the tourism and hospitality education in Zambia. The limited understanding of the complex sustainability agenda by some managers, instructors and learners, the lack of engagement in the programme by most of the stakeholders (tourism and hospitality sector), are areas which needed attention by the programme implementers. There is need for the industry to invest in the new teaching technologies and qualified human resource for these components to be well taught in the Zambian institutions.

7.2 Recommendations

The following recommendations are made based on the findings of this study. It should be emphasised that these recommendations are mainly to be implemented by the curriculum developers, implementers, monitoring, evaluation and certifying bodies such as TEVETA and private tourism and hospitality training institutions. These evidence-based recommendations can be used in the process of integration and implementation of green concepts and practices.

7.2.1 Extent of Integration and Coverage

There is need to improve on the integration and coverage of green aspects found in the tourism and hospitality curricula in institutions of tourism and hospitality training. This recommendation stems from the findings that participants had divergent views concerning the extent of integration and coverage of green aspects integrated.

7.2.2 Extent of Emphasis in Class Tasks

There is need to emphasize green aspects in class activities such as lectures, assignments, practical activities and research. This recommendation emanates from the findings that some participants said that emphasis of green practices in these class activities was lacking.

7.2.3 Prevailing Situation on the Teaching of Green Concepts and Practices

There is need to emphasise sustainability education or green concepts and practices in the tourism and hospitality training programmes. This recommendation is based on the findings that majority of the respondents said that no green components had been covered in the curriculum from the time they started doing their respective courses to the time of the study.

7.2.4 Absence of Intentionally Integrated Content

There is need for intentional integration of green concepts and practices in the curricula of tourism and hospitality training institutions. This recommendation comes from the findings of the study which revealed two positions. The first position was that green practices were present in the curricula but latently. The other position was that green concepts and practices were theoretically present but practically absent.

7.2.5 Topics Existed but Not as an Area of Focus

There is need for curricula which should focus on green aspects in tourism and hospitality education. This recommendation arises from the submission by participants who felt that green concepts and practices existed in the curricula but not as a main focus of the curricula.

7.2.6 Topics on Green Concepts and Practices That Could Be Integrated

There is need for different topics on sustainability to be integrated into the curricula of tourism and hospitality training programmes. This recommendation arises from the needs of the participants who felt that green aspects could be enhanced in the curricula.

7.3 Reflections on the Research Process

Undertaking this research has given me insight in many areas. To start with, the study revealed that a gap exists between knowledge, content and action among sustainability education providers which must be addressed. Blake (1999) explains that the gap is not empty but is filled with barriers that block the progress from concern to action. For example, sometimes unfamiliarity with the subject gets in the way or that sustainability can only relate to environmental science courses (McCarthy, 2016). Another barrier was lack of administrative support, also called administrative apathy (Chileshe, 2018). A lack

of administrative support to implementing staff tends to make them lose motivation and interest in a programme. The other issue was that there was ignorance or lack of understanding among HODs and lecturers who thought that management could just authorise them to teach what was not contained in the curriculum in the different institutions sampled.

The study has also shown that, largely, the foundations of curriculum theory have practical applicability to the Zambian context. For example, curriculum theory guides the selection of objectives and content, depending on what a society deems to be important. The study has also provided insight into what trainers of sustainability education in the tourism and hospitality industry in Zambia ought to do in order to make the ESD/SE training programme successful.

Employing the mixed methods approach in this study enabled the researcher to elicit both qualitative and quantitative information about how complex and relatively new sustainability education is and the lack of knowledge among lecturers and students concerning SE or green concepts and practices in the Zambian context. In this case, I submit that the present study is the first of its kind in Zambia and, therefore, its findings have made a noteworthy contribution to the understanding of SE concept and to its integration into the tourism and hospitality training programmes. As observed in the chapters on the findings and discussion of the study, this study has greatly contributed to the current agenda on ESD debate. It has also made a valuable contribution to tourism and hospitality training by coming up with a curriculum framework for content integration into the curricula of tourism and hospitality training institutions.

Lastly, the findings and conclusions of this study are not imposed on the study but reflect the views, feelings, understandings, and situations of the various participants who took part in the study. Therefore, its originality is guaranteed in this manner, and it is a true reflection of the responses to the set research questions and objectives. From this study, the research gap which was earlier identified has been filled together with the research objectives.

7.4 Suggestions for Further Research

The study recognises some prime issues that are yet to be incorporated within SE and this might help tourism and hospitality educators to review or remodel their curricula. It is important, therefore, to acknowledge the fact that, not everything pertaining to the problem of green/best practices in tourism and hospitality training has been brought out in this single research. Therefore, more needs to be done since no-one study can ever exhaust a topic. I, therefore, suggest that future research should endeavour to consider how skills and abilities for future tourism and hospitality trainees, trainers and managers can be enhanced and how an integrated sustainability curriculum can provide students with a robust sustainability education to effectively skill them in sustainability concepts and practices that would help them reduce unsustainable practices when they join the industry.

7.5 Chapter Summary

In this chapter, I have presented the conclusions and recommendations of the study. As students of tourism and hospitality will become leaders and decision makers in the industry in the future, they need to acquire specific skills and competences. Therefore, callings for the creation of tailored training programmes are being geared towards this goal. This study has recommended the preparation of curriculum of career-oriented study programmes for the tourism and hospitality training institutions which take into consideration sustainability education and focus on both theoretical and practical skills and training.

REFERENCES

- Aipanjiguly, S. & Jacobson, S. (2002). Conserving manatees: Attitudes and intentions of boaters in Tampa Bay, Florida. *Conservation Biology*, 17(4), 1098–1105.
- Alexander, S. (2002). *Green Hotels: Opportunities and Resources for Success* [WWW Document]. Zero Waste Alliance.
http://www.zerowaste.org/publications/GREEN_HO.PDF (accessed 03.10.19.).
- Alise, M. A., & Teddlie, C. (2010). A continuation of the paradigm wars? Prevalence rates of methodological approaches across the social/behavioral sciences. *Journal of Mixed Methods Research*, 4(2), 103-126.
<https://doi.org/10.1177/1558689809360805>
- Aliyu, A.A., Singhry, I.M., Adamu, H. & Abubakar, M.M. (2015). *Ontology, epistemology and axiology in quantitative and qualitative research: Elucidation of the research philosophical misconception*. Proceedings of the Academic Conference: Mediterranean Publications & Research International on New Direction and Uncommon Vol. 2 No. 1. 22nd December 2015. University of Agriculture, Abeokuta, Abeokuta, Ogun State, Nigeria.
- Alsubaie, M.A. (2016). Curriculum Development: Teacher Involvement in Curriculum Development. *Journal of Education and Practice*. 7(9), 106-107.
- Ambler, T. & Wilson, A. (2006). Problems of Stakeholder Theory. *Business Ethics A European Review* 4(1):30 – 35. Doi: [10.1111/j.1467-8608.1995.tb00107.x](https://doi.org/10.1111/j.1467-8608.1995.tb00107.x)
- American Institute for Research (AIR) (2016). *Concerns-based adoption model (CBAM)*. Retrieved from www.sedl.org/cbam/ [7th May, 2022]..
- Anyolo, E.O., Karkkainen S. & Keinonen, T. (2018). Implementing Education for Sustainable Development in Namibia: School Teachers' Perceptions and Teaching Practices *Journal of Teacher Education for Sustainability*, 20(1), 64-81. DOI: 10.2478/jtes-2018-0004.

- Archer, B., Cooper C., & Ruhanen, L. (2005). The positive and negative impacts of tourism. In W.F. Theobald (Ed.), *Global Tourism* (3rd ed., pp. 79–102). Oxford: Elsevier Butterworth Heineman.
- Asirifi, G.H., Doku, V., Morrison, S., & Sackey, A.S. (2014). The gap between the hospitality education and hospitality industry. *Journal of Tourism, Hospitality and Sports*, 2, 34-38.
- Atuhurra, J.F. & Alinda, V. (2017). *Basic Education curriculum effectiveness analysis in East Africa: Using the 'Surveys of Enacted Curriculum' framework to describe primary mathematics and English content in Uganda*.
- Australian Education. (2005). *University Tourism Courses and Programmes*. Sydney: Longman.
- Babbie, E. & Mouton, J. (2011). *The practice of social research*. Cape Town: Oxford University Press.
- Babbie, E. (2010). *The practice of social research*, (12th ed.). Wadsworth, Belmont.
- Bader, E.E. (2005). Sustainable hotel business practices. *Journal of Retail & #38 Leisure Property*, 5(1), 70-77. Doi: 10.1057/palgrave.rlp.5090008
- Baker, M., Davis, E., & Weaver, P. (2014). Eco-friendly attitudes, barriers to participation, and differences in behaviour at green hotels. *Cornell Hospitality Quarterly*, 55, 89–99.
- Baker, S. (2006). *Sustainable development* (1st ed.). London: Routledge.
- Banda, E. (2013). Factors leading to poor outcomes of the Keep Zambia Clean Awareness campaign: The case of Mtendere residential area of Lusaka. *Masters Dissertation the University of Zambia*, Lusaka.
- Banda, T.& Bass, S. (2014). Inclusive Green Growth in Zambia: Scoping the needs and potentials. London: *International Institute for Environment and Development (IIED) Country Report*.
- Bansal, P. & Roth, K. (2000). Why Companies Go Green: A Model of Ecological Responsiveness. *Business Academy of Management Journal*, 43(4), 717-736. Doi:10.5465/1556363

- Bansal, P. (2005) Evolving Sustainability: A Longitudinal Study of Corporate Sustainability Development, *Strategic Management Journal*, 26, 3, 197–218.
- Barber, N., Deale, C., & Goodman, R. (2011). Environmental sustainability in the hospitality management curriculum: Perspectives from three groups of stakeholders. *Journal of Hospitality & Tourism Education*, 21(1), 6-17.
doi:10.1080/10963758.2011.10696994
- Bell, C. S. (1999). The best Web sites for doctors. *Medical Economics*, 76(9), 81–82, 87–88, 93.
- Bell, J. (2005). *Doing your research project* (4th Ed.). Maiden Head: Open University.
- Bezeljak, P., Scheuch, M. & Torkar, G. (2020). Understanding of Sustainability and Education for Sustainable Development among Pre-Service Biology Teachers. *Sustainability*, 12(17), 6892; <https://doi.org/10.3390/su12176892>
- Biesta, G. (2010). Pragmatism and the philosophical foundations of mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Sage handbook of mixed methods in social & behavioral research* (2nd ed., pp. 95-118). Thousand Oaks, CA: Sage. <https://doi.org/10.4135/9781506335193.n4>
- Blake, J. (1999). *Overcoming the 'value-action gap' in environmental policy: tensions between national policy and local experience*. *Local Environment*, 4(3), 257–278.
- Bohdanowicz, P. & Martinac, I. (2003). Attitudes towards sustainability in chains hotel-results of European studies. *Proceedings from the CIB 2003 International Conference on Smart and Sustainable Built Environment*, Brisbane, Australia.
- Bohdanowicz, P. (2005) European hoteliers' environmental attitudes: Greening the business, *Cornell Hotel and Restaurant Administration Quarterly*, 46 (2), 188-204.
- Bohdanowicz, P., Churie-Kalhaige, A.C. & Martinac, I. (2001). Energy-efficiency and conservation in hotels-towards sustainable tourism, Hawaii. *Australian Journal of Business and Management Research*, 2(11), 64-73.

- Bohdanowicz, P., Zientara, P., Novotna, E. (2011). International hotel chains and environmental protection: An analysis of Hilton's We Care! Programme (Europe, 2006-2008). *Journal of Sustainable Tourism*, 19(7), 797-816.
- Boley, B. & Perdue, R.R. (2012). Destination management, competitiveness, and quality-of-life: a review of literature and research agenda. In: Uysal, M, Perdue,
- Boley, B. B. (2011). Sustainability in tourism and hospitality education: Towards an integrated curriculum. *Journal of Tourism and Hospitality Education*, 23(4), 22-31.
- Bramwell, B., Higham, J., Lane, B. & Miller, G. (2017). Twenty-five years of sustainable tourism and the journal of sustainable tourism: Looking back and moving forward. *Journal of Sustainable Tourism*, 25 (1) (2017), 1-9, 10.1080/09669582.2017.1251689
- Brazier, R. J. (2014). How Education Can Be Used to Improve Sustainability Knowledge and Thinking Among Teenagers. *Australian Journal of Environmental Education*, 30(2), 280–282. <https://www.jstor.org/stable/26422876>
- Bright, D. S. & Cortes, A. H (2019). *Principles of Management*. OpenStax: Houston, Texas.
- Bryman, A. & Bell, E. (2007). *Business research methods*, (2nd ed.). Oxford University Press.
- Butler, J. (2008). The compelling “hard case” for “green” hotel development. *Cornell hospitality quarterly*, 49(3), 234-244.
- Chakraborty, A., Singh, M.P., & Roy, M. (2018). Green Curriculum Analysis in Technological Education. *International Journal of Progressive Education*, 14(1), 122-129. DOI: 10.29329/ijpe.2018.129.9.
- Chandel, A., & Mishra, S. (2016). Ecotourism revisited: Last twenty-five years. *Czech Journal of Tourism*, 5(2), 135–154. Doi: 10.1515/cjot-2016–0008.

- Chawla, G. & Manhas, P. S. (2015). Sustainability in higher education: An exploratory investigation of hospitality management courses. *Asia-Pacific Journal of Innovation in Tourism and hospitality*, 4(1), 19-42.
- Chawla, G. (2014) *Sustainability in hospitality education: A conceptual viewpoint on situated learning*, *Proceedings of Council for Hospitality Management Educators*, Buxton (UK), May 28-31.
- Chawla, G. (2015) *Sustainability in hospitality education: A content analysis of the curriculum of British universities*, *Proceedings of the European Conference on Research Methodology for Business and management Studies*, Malta, June 11, 12, pp. 135-139.
- Chen, M., Jeronen, E., & Wang, A. (2020). What Lies Behind Teaching and Learning Green Chemistry to Promote Sustainability Education? A Literature Review. *International Journal of Environmental Research and Public Health (IJERPH)*, 17(21), 7876. doi: [10.3390/ijerph17217876](https://doi.org/10.3390/ijerph17217876).
- Chen, Y. & Chang, C. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust, *Management Decision*, 50(3), 502-520. <https://doi.org/10.1108/00251741211216250>
- Chileshe, B. & Moonga, M, S. (2019). Disparities in Pro-Environmental Behaviour between Rural and Urban Areas in Zambia. *Multidisciplinary Journal of Language and Social Sciences Education* (2664-083X, Online ISSN: Print ISSN: 2616-4736
- Chileshe, B. & Moonga, M. S. (2019). *Achieving green behaviour in Zambia: Political rhetoric, hypocrisy and duplicity versus political will*: *Multidisciplinary Journal of Language and Social Sciences Education* (2664-083X, Online ISSN: Print ISSN: 2616-4736
- Chileshe, B. (2018). *Enhancing Health Campaigns through Environmental Education: A case of the 'Keep Zambia Clean and Healthy' Programme*. A PhD Thesis presented to the University of Zambia, Lusaka.

- Chilufya, T. (2014). *Integrating environmental sustainability issues in the Zambian 2013 revised science curriculum at Junior Secondary School level*. Masters' dissertation, the University of Zambia.
- Chinedu, C.C., Saleem, A., & Wan Muda, W.H.N. (2023). Teaching and Learning Approaches: Curriculum Framework for Sustainability Literacy for Technical and Vocational Teacher Training Programmes in Malaysia. *Sustainability*, 15, 2543. <https://doi.org/10.3390/su15032543>.
- Choi, H. & Sirakaya, E. (2005). Measuring residents' attitude toward sustainable tourism: Development of sustainable tourism attitude scale. *Journal of Travel Research*, 43, 380–394.
- CHRIE. (1991). *CHRIE. A Guide to College Programmes in Tourism and hospitality 1991–1992*, New York: Wiley.
- Christmals, C.D. & Armstrong, S.J. (2020). Curriculum framework for advanced practice nursing in sub-Saharan Africa: a multimethod study. *BMJ Open*. 10(6): e035580. Doi: 10.1136/bmjopen-2019-035580
- Cilliers, L. & Viljoen, K. (2021). A framework of ethical issues to consider when conducting internet-based research', *South African Journal of Information Management*, 23(1), a1215. <https://doi.org/10.4102/sajim.v23i1.1215>
- Ciociu, C.N. (2011). Integrating Digital Economy and Green Economy: Opportunities for Sustainable Development. *Theoretical and Empirical Researches in Urban Management*, 6(1), 33-43.
- Clarke, J. (1997) A framework of approaches to sustainable tourism, *Journal of Sustainable Tourism*, 5(3), 224-233.
- Cohen, L., Morrison, K. & Manion, L. (2011). *Research Methods in Education* (7th ed.). Conde: Routledge. DOI: 10.4324/9781315456539D
- Corbin, J. & Strauss, A. (2008). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd Ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson/ Merrill Prentice.

- Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*, (2nd ed). Thousand Oaks, CA: Sage.
- Creswell, J.W. (2009). *Research Design. Qualitative, Quantitative and Mixed Methods Approaches*, (3rd ed.). Thousand Oaks, CA: Sage.
- Crotty, M. (1998). *The foundations of social research: meaning and perspective in the research process*. London: Sage.
- Cushman-Roisin, B. (2012) *Green behaviour (homo ecologicus)*. [Presentation]
Available at:
<http://engineering.dartmouth.edu/~cushman/courses/engs44/GreenBehavior.pdf>
- Daisi, J. (2018). Tourism environment sustainability the along the beaches of the ocean in Mexico. *Hotels Management Journal*, 8(7):31-49.
- Dale, A. & Newman, L. (2005), Sustainable development, education and literacy, *International Journal of Sustainability in Higher Education*, 6(4), pp. 351- 362.
- Dale, C. & Robinson, N. (2011). Dark tourism. In P. Robinson, S. Heitmann, P.U.C. Dieke (Eds.), *Research themes for tourism*, CABI, Wallingford, pp. 205-217.
- Dalglish, S.L., Khalid, H., & McMahon, S.A. (2020). Document analysis in health policy research: The READ approach, *Health Policy and Planning*, 35(10), 1424–1431, <https://doi.org/10.1093/heapol/czaa064> .
- Dasgupta, P. (2001). *Human Well-Being and Sustainable Development*. New Delhi: Oxford University Press.
- Deale, C. S (2013). Environmental Sustainability in the Hospitality Management Curriculum: Perspectives from Three Groups of Stakeholders. *Journal of Sustainability Education*, 4. ISSN: 2151-7452
- Deale, C.S., & Barber, N. (2010). *Sustainability: What matters to students, educators, and hospitality and tourism professionals?* BEST EN Think Tank X paper..
- Deale, C.S., Nichols, J. & Jacques, P. (2009). A descriptive study of sustainability education in the hospitality curriculum. *Journal of Hospitality and Tourism Education*, 21(4), 34-42.

- DeJonckheere, M. & Vaughn, L.M. (2018). Semi-structured interviewing in primary care research: A balance of relationship and rigour. *Family Medicine and Community Health*. 7(2), <http://orcid.org/0000-0002-2660-3358>
- Denzin, N. K. (1970). *The research act: A theoretical introduction to sociological methods*. New York: Aldine.
- DeVault, G. (2019). Establishing Trustworthiness in Qualitative Research. <https://www.thebalancesmb.com/establishing-trustworthiness-in-qualitative-research-2297042> [Retrieved 27th April, 2022].
- DFID/World Bank (July 2011). *What would it take for Zambia's tourism industry to achieve its potential?* DFID: Lusaka.
- Dibra, M. (2015). Roger's theory on diffusion of innovations: the most appropriate theoretical model in the study factors influencing the integration of sustainability in tourism business. *Procedia: Social and Behavioural Sciences*, 195, 1453-1462.
- Dodds, R. (2007). Sustainable tourism & policy implementation: lessons from the case of Calviá, Spain. *Current Issues in Tourism*, 10(1), 296-322.
- Domingo, T. (20019). The competition practices amongst employees in the tourism sector in Rwanda. *East African Tourism Journal*. 14(6):221-239.
- Driscoll, D.L., Appiah-Yeboah, A., Salib, P., & Rupert, Douglas J. (2007). Merging qualitative and quantitative data in mixed methods research: How to and why not. *Ecological and Environmental Anthropology (University of Georgia)*. 18. <https://digitalcommons.unl.edu/icwdmee/18>
- Dryzek, J. (2005). *The politics of the earth: Environmental Discourses* (2nded.): Oxford University Press Oxford.
- Du Pisani
- Economic Commission for Europe of the United Nations (UNECE, 2000). *Terminology on Statistical Metadata*, Conference of European Statisticians Statistical Standards and Studies, No. 53, Geneva.

- ECZ, (2004) State of Environment in Zambia 2003. *Norwegian agency for Development Corporation*: Lusaka. Geography: Implementation at the European and Regional Scales.
- Ellis, A.K. (2004). *Exemplars of curriculum theory*. New York: Eye on Education.
- Environmental Protection Agency (EPA) (2008). *Sustainability Education (SE)*. Oslo: Longman.
- Fassin, Y. (2008). *Imperfections and shortcomings of the stakeholder model's graphical representation*. Working Paper, Department of Management, Ghent University.
- Filho, W. L. (Ed.). (2009). Sustainability at universities—opportunities, challenges and trends (Vol. 31). Frankfurt: Peter Lang.
- Fiselier, E.S., Longhurst, J.W.S., & Gough, G.K. (2018). Exploring the current position of ESD in UK higher education institutions. *International Journal of Sustainability in Higher Education*, 19(2), 393–412.
<https://doi.org/10.1108/IJSHE-06-2017-0084> .
- Font, X. & Buckley, R. (2001). *Tourism Ecolabelling: Certification and Promotion of Sustainable Management*. Wallingford: CABI.
- Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
- Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B. and de Colle, S. (2010). *Stakeholder Theory: The State of the Art*, Cambridge: Cambridge University Press.
- Froud, R., Meza, T.J., Ernes, K.O. & Slowther, A.M. (2019). Research ethics oversight in Norway: structure, function, and challenges. *BMC Health Services Research*, 19, 24. <https://doi.org/10.1186/s12913-018-3816-0>
- Frumkin, H. (2013). The evidence of nature and the nature of evidence. *American Journal of Preventive Medicine*, 44 (2), 196-197.
- Fuertes-Camacho, M.T., Graell-Martín, M., Fuentes-Loss, M., & Balaguer-Fàbregas, M.C. (2019). Integrating Sustainability into Higher Education Curricula through

- the Project Method, a Global Learning Strategy. *Sustainability*, 11(3).
Doi:10.3390/su11030767
- Goodman, R. J., & Sprague, L. G. (1991). The future of hospitality education; meeting the industry's needs. *The Cornell Hotel and Restaurant Administration Quarterly*, 32(2), 66-69.
- Gössling, S., Peeters, P. M., Ceron, J.-P., Dubois, G., Patterson, T. & Richardson, R. B. (2005). The eco-efficiency of tourism. *Ecological Economics*, 54 (4), 417– 434.
- Graci, S & Dodds, R. (2008). Why Go Green? The business case for environmental commitment in the Canadian Hotel Industry. *Anatolia: An International Journal of Tourism and Hospitality Research*, 19(2), 251-270.
- Graci, S. & Kuehnel, J. (2009). *Green hotels and responsible tourism initiative*, Whitepaper. Available at: <http://green.hotelscombined.com/> [Retrieved 26th March, 2022].
- Graci, S. (2009). *Can hotels accommodate green? Examining what influences environmental commitment in the hotel industry*, Frankfurt: VDM Publishing.
- Green, L. (2003). Hospitality management skills in EU. *European Journal for Hospitality*. 23(9), 624-641.
- GRZ (2019). Ministry of Water Development, Sanitation and Environmental Protection. *Land Degradation Neutrality High Level Note*: https://knowledge.unccd.int/ldn_targets › 2019-10
- Guba, E. G., & Lincoln, Y. S. (1989). *Fourth generation evaluation*. Newbury Park, CA Sage.
- Guba, E.G. & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In Denzin, N. K & Lincoln, Y. S. (Eds). *Handbook of Qualitative Research*, Thousand Oak: Sage.
- GUNi, IAU & AAU. (2011). *The promotion of sustainable development by higher education institutions in Sub-Saharan Africa. Survey Report*. The Global

University Network for Innovation (GUNi), the International Association of Universities (IAU) and the Association of African Universities (AAU).

Gupta, M. & Gupta, D. (2011). *Research methodology*. New Delhi: PHI Learning Private Limited.

Hammersley, M. (1999). Not bricolage but boatbuilding: exploring two metaphors for thinking about ethnography, *Journal of Contemporary Ethnography*, 28(6), 574-585

Hammersley, M. (2013). *What is qualitative research?* London, Bloomsbury Academic.

Hardy, A., Beeton, R., & Pearson, L. (2002). Sustainable tourism: An overview of the concept and its position in relation to conceptualisations of tourism. *Journal of Sustainable Tourism*, 10(6), 475- 496.

Harrison, J., & Freeman, E. (1999). Stakeholders, social responsibility and performance: Empirical evidence and theoretical perspectives. *Academy of Management Journal*, 42(5): 479-485.

Hartwig, E.A. (2021). Chapter 11 Ecology-Based Curriculum Design for Transformative Times an Integrated, Context-Responsive Approach. In: *Curriculum and Learning for Climate Action: Toward an SDG 4.7 Roadmap for Systems Change*, pp. 206–218. DOI: https://doi.org/10.1163/9789004471818_012

Harvey, P.A. & Mukosha, L. (2008). Community-led total sanitation: Lessons from Zambia, UNICEF.

Hasan, H., Molla, A., & Cooper, V. (2013). A Green IS taxonomy. In H. Hasan (Ed.), *Being Practical with Theory: A Window into Business Research* (pp. 98-107). Wollongong, Australia: University of Wollongong.

Herold, T. (2015). *Facilitators to education provision in SE*. Florida: Education Publishers.

Hesieh, Y. (2012). *Hotel Companies' Environmental Awareness and Commitment: A content analysis of their web pages*. *International Journal of Contemporary Hospitality Management*, 24(1), 97-121. DOI 10.1108/095961112.

- Hofer, B. & Pintrich, P. (1997). The development of epistemological theories: beliefs about knowledge and knowing and their relation to learning. *Review of Educational Research*, 67(1), 88-140.
- Holden, A. (2016). *Environment and tourism*.
<http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabkAN=1228721>
- Holdsworth, S. & Thomas, I. (2015). Framework for Introducing Education for Sustainable Development into University Curriculum. *Journal of Education for Sustainable Development*, 9(2), 137–159.
<https://doi.org/10.1177/09734082155882>
- Honey, M., (ed.) (2002). *Ecotourism and Certification, Setting Standards in Practice*. Washington DC: Island Press.
- Hopwood, B., Mellor, M. & O'Brien, G. (2005), Sustainable development: mapping different approaches, *Sustainable Development*, 13, 38-52.
- Hopwood, B., Mellor, M., & O'Brien, G. (2005). Sustainable development: Mapping different Hospitality Management, 28(1), 1.
- Hossan, F. (2014). Impact of Hotels on Environment: Features of Green Hotels to Overcome Environmental Pollutions. *Journal of Hamdad University of Bangladesh*.
- Hove, G., Rathaha, T. & Mugiya, P. (2020) the Impact of Human Activities on the Environment, Case of Mhondongori in Zvishavane, Zimbabwe. *Journal of Geoscience and Environment Protection*, 8, 330-349.
- Howard, F. (2014). Creating small-scale waste reuse practices. *Journal for Innovation*, 9(7), 89-112.
- Howard, G. (2014). Waste management for sustainable development. *Journal of Environment*, 41(12): 156-167.
- Huang, R. (2023). A corpus-assisted discourse study of Chinese university students' perceptions of sustainability. *Frontiers in Psychology*, 14.
<https://doi.org/10.3389/fpsyg.2023.1124909>

- Hweng et al., (2015). Best practices in the tourism education curriculum in Hong Kong. *Tourism and Hospitality Journal for Practitioners*. 10(9), 102-123.
- Ibrahim, F. (2019). The Turkish hospitality training needs in the hospitality industry. *Green Management Publication*, 7(3): 46-60.
- ILO (2015). Zambia green jobs programme annual impact report. *International Labour Organisation*. Available at: <http://www.zambiagreenjobs.org/index.php/2014-10-07-10-16-31/current-affairs/83-female-entrepreneur-builds-economical-green-homes-in-Zambia> [Accessed on 2nd, January 2023].
- ILO. (2012). *Skills for green jobs in Mauritius*. Geneva: International Labour Organisation.
- INEE (2010). INEE Minimum Standards for Education: *Preparedness, Response, Recovery*. Inter-agency Network for Education in Emergencies.
- IUCN. (1968). Conservation Education and Training Papers Presented at The Conference on Conservation of Nature and Natural Resources in Tropical South-East Asia held at Bangkok, Thailand, 29 November - 4 December, 1965.
- Ivanov, S., Ivanova, M., & Iankova, K. (2014). Sustainable Tourism Practices of Accommodation Establishments in Bulgaria: *Tourismos: An International Multidisciplinary Journal of Tourism: An Exploratory Study*, 10(10), 20.
- Jacobson, S.K., McDuff, M.D. & Monroe, M.C. (2006). *Conservation Education and Outreach Techniques*. Oxford Scholarship Online.
Doi:10.1093/acprof:oso/9780198567714.001.0001
- Jacobus A. Du Pisani Professor of History (2006) Sustainable development – historical roots of the concept, *Environmental Sciences*, 3:2, 83-96, DOI: 10.1080/15693430600688831\
- Jared, A. (2021). Advantages of mixed methods research/Types/Disadvantages. Available at: <https://englopedia.com/advantages-of-mixed-methods-research/> [Retrieved 24th April, 2022].

- Johnson, J.A. (2001). Principles of effective change: Curriculum revision that works. *The Journal of Research for Educational Leaders*, 1(1), https://www2.education.uiowa.edu/archives/jrel/fall01/Johnson_0101.htm
- Johnson, R.B. & Onwuegbuzie, A.J. (2004) Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33, 14-26.
doi:10.1177/1558689806298224
- Johnson, R.B., Onwuegbuzie, A.J., & Turner, L.A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 2, 112–33.
- Johnstone, D. (1994). College at work: partnerships and rebuilding of American competence. *Journal of Higher Education*, 65(2), 168-181.
- Jones, P., Selby, D., & Sterling, S. R. (2010). More than the sum of their parts?
- Jurowski, C. & Liburd, J. (2001). A multi-cultural and multi-disciplinary approach to integrating the principles of sustainable development into human resource management curricula in tourism and hospitality, *Journal of Hospitality and Tourism Education*,13(5), 36-50.
- Kelley, K. (2022). What is Data Analysis: Methods, Process and Types Explained. <https://www.simplilearn.com/data-analysis-methods-process-types-article> [26th April, 2022].
- Kevany, K. (2007). Building the requisite capacity for stewardship and sustainable development, *International Journal of Sustainability in Higher Education*, 2, 107-122.
- Kigozi, E. (2020). Application of mixed methods approach in studies on quality assurance in educational institutions: A systematic review of literature from 2005-2019. *International Journal of Innovative Business Strategies (IJIBS)*, 6(1), 396-410.
- Kimaryo L. (2011). *Integrating Environmental Education in Primary School Education in Tanzania; Teachers' Perceptions and Teaching Practices*, Biskopsgatan, Finland: Åbo Akademi University Press.

- Kirk, D. (1996). *Environmental management for hotels: A student's handbook*. Oxford, UK: Butterworth-Heinemann.
- Kirk, D. (1998). Attitudes to environmental management held by a group of hotel
- Kivunja, C. & Kuyini, A.B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26-41
- Kliebard. H.M. (1989). Problems of Definition of Curriculum. *Journal of Curriculum and Supervision*, 5(1), 1-5.
- Koge (2018) The training practices hospitality institutions adopted in the Nigerian institutions. *West African Journal Collection*, 13(8), 22-39
- Kollmuss, A. & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*, 8(3), 239-260, DOI: 10.1080/13504620220145401
- Korstjens, I. & Moser, A. (2018) Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing, *European Journal of General Practice*, 24:1, 120-124, DOI: 10.1080/13814788.2017.1375092.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Delhi: New Age International.
- Kukoyi I. A. & Ezenagu N. (2013). Hospitality Business Vs Environmental Sustainability: A Study of Soarak Hotel and Casino Lagos. *International Journal of Science and Research (IJSR)*, 2(9). Available on www.ijsr.net.
- Lander, L. A., (2009). *Sustainability and the need for wisdom, all about mentoring*, 36, 72-77.
- Lander, L.A. (2015), Education for sustainability: is thinking the key? *Sustainability: the Journal of Record*, 8(1), 27-31.
- Lavrakas, P.J. (Ed.) (2008). Census. In: *Encyclopedia of Survey Research Methods*. DOI: <https://dx.doi.org/10.4135/9781412963947.n61>

- Leal Filho, W. (Ed.). (2009). *Sustainability at universities—opportunities, challenges and trends* (Vol.31). Frankfurt: Peter Lang.
- Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications.
- Liu, J., Watabe, Y. & Goto, T. (2022). Integrating sustainability themes for enhancing interdisciplinarity: a case study of a comprehensive research university in Japan. *Asia Pacific Education Review* (APER), 23, 695–710.
<https://doi.org/10.1007/s12564-022-09788-z>
- Loeser, F. (2013). Green IT and Green IS: Definition of constructs and overview of current practices completed research paper. *Proceedings of the Nineteenth Americas Conference on Information Systems*, Chicago, Illinois, August 15-17, 2013. DOI: 10.13140/2.1.3065.6962
- Lorente, J.C., Jimenez, J.B., & Gil, M.J.A. (2003). Stakeholders' environmental influence. an empirical analysis in the Spanish hotel industry. *Scandinavian Journal of Management*, 19, 333-358.
- Louw, W. (2013). Green Curriculum: Sustainable Learning at a Higher Education Institution. Available at:
<https://www.irrodl.org/index.php/irrodl/article/view/1310/2418> [Accessed 20/3/2023].
- Mainardes, E.W., Alves, H. & Raposo, M. (2011), Stakeholder theory: Issues to resolve, *Management Decision*, 49(2), 226-252.
<https://doi.org/10.1108/00251741111109133> .
- managers in Edinburgh. *Journal of Hospitality Management*, 17, 33-47.
- Marthinsen, J., Sundt, P., Kaysen, O., & Kirkevaag, K. (2012). *Prevention of food waste in restaurants, hotels, canteens and catering*. Copenhagen, Denmark: Nordic Council of Ministers.
- Mayaka M, King B (2002). A quality assessment of education for Kenya Tour Operations Sector. *Current Issues in Asian Tourism*, 5(2), 112 – 133.

- McCarthy, J. (2016). Climate Change Is Real. So Why Isn't It Being Taught in US Schools? *Global Citizen*. Available from: <https://www.globalcitizen.org/en/content/how-is-climate-change-being-taught-in-schools/> [Accessed on 4th June, 2021].
- McLean, M.M. Communicating curriculum reform to students: Advice in hindsight..... *BMC Medical Education*, 3(4). <https://doi.org/10.1186/1472-6920-3-4>
- McMillan, J.H. & Schumacher, S.S. (1997). *Research in Education: A Conceptual Introduction*. New York: Longman.
- Mebratu, D. (1998). Sustainability and sustainable development: Historical and conceptual review. *Environmental Impact Assessment Review*, 18(6), 493–520. .
- Micioni, C.W. (200). *Going green in the hospitality industry*. Las Vegas, Nevada: UNLV.
- Millar, M. & Park, S. (2013). Sustainability in higher education: the industry's perspective and implications for curriculum, *Journal of Tourism and Hospitality Education*, 25(2), 80-88.
- Millar, M., & Baloglu, S. (2008). *Hotel Guests Preferences for Green Hotel Attributes*. Paper presented at the 26th Euro CHRIE, Dubai.
- Molla, A. & Abareshi, A. (2011). Green IT adoption: A motivational perspective, in *Proceedings of the 15th Pacific Asia Conference on Information Systems (PACIS)*, Brisbane, Australia.
- Moonga, M. S. & Chileshe, B., (2019). Zambia's Transition to a Green Economy. *Multidisciplinary Journal of Language and Social Sciences Education* (2664-083X, Online ISSN: Print ISSN: 2616-4736
- Moonga, M. S. & Chileshe, B., (2020). Sustainability and Greening Concepts in the Curricula of Tourism and hospitality Training Institutions in Zambia: A Review of Literature. *Multidisciplinary: Journal of Language and Social Sciences Education* (2664-083X, Online ISSN: Print ISSN: 2616-4736
- Msabila, D.T. and Nalaila, S.G. (2013). *Research Proposal and Dissertation Writing: Principles and Practice*. Dar es Salaam: Nyambari Nyamgwine Publishers.

- Mugenda, O.M. & Mugenda A.G. (1999). *Research methods: Quantitative and qualitative approaches*. Nairobi: Acts Press.
- Mwendwa, B. (2017). Learning for Sustainable Development: Integrating Environmental Education in the Curriculum of Ordinary Secondary Schools in Tanzania. *Journal of Sustainability Education*, 12,
- Mwendwa, T. (2017) & Wilson, A. (2006). Problems of Stakeholder Theory. *Business Ethics A European Review* 4(1):30 – 35. Doi: [10.1111/j.1467-8608.1995.tb00107.x](https://doi.org/10.1111/j.1467-8608.1995.tb00107.x)
- Naik, S. (2014). *Hotel industry and environmental issues*. S.K. Sindhudurg Mahavidyalaya, Malvan: Sindhudurg, Mahavidyalaya..
- National Centre for Education Statistics (NCES). (2017). Effects of curriculum and teacher professional development on the language proficiency of elementary English language learner students in the Central region. Retrieved from: <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=REL20124013> [7th May, 2022].
- Nichols, J. (2007). A health ecology and hearty economy can co-exist. *Journal of Interior Design*, 32(3), 2-8.
- O’Sullivan, E, Morrell, A, & O’Connor, M. (2002). Expanding the boundaries of transformative learning: essays on theory and praxis. New York: Palgrave.
- Omar, C.M.Z.C. (2014). The Need for In-Service Training for Teachers and Its Effectiveness in School. *International Journal for Innovation Education and Research*, 2 (11): 1-9.
- Onwuegbuzie, A. J., & Teddlie, C. (2003). A Framework for Analyzing Data in Mixed Methods Research. In *Handbook of Mixed Methods in Social and Behavioral Research*. Tashakkori, A. & C. Teddlie, (eds.), pp. 351-383. Thousand Oaks, CA: Sage.
- Oppenheim, A. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*, London: Pinter.
- Parvaiz, G.S., Mufti, O., & Wahab, M. (2016). Pragmatism for mixed method research at higher education level. *Business and Economic Review*, 8(2), 67-79.

- Phillimore, J. & Goodson, L. (Eds.). (2004). *Qualitative research in tourism: Ontologies, epistemologies and methodologies (contemporary geographies of leisure, tourism and mobility)* (1st ed.). New York, NY: Routledge.
- Phiri, B. (2018). Explore ‘Make Zambia Clean, Green, Healthy Campaign’ opportunities. *Lusaka Times*: <http://www.times.co.zm/?p=104525>: (Accessed on 24/07/18)..
- Pinar, W.F. (2004). *Understanding curriculum*. New York, NY: Peter Lang Publishing.
- Pokuak – Nimo (2010)
- Pole, C. & Morrison, M. (2003). *Ethnography for education*. Maidenhead: Open University Press.
- Posch, A. & Steiner, G. (2006). Integrating research and teaching on innovation for sustainable development. *International Journal of Sustainability in Higher Education*, 7(3), 243-253..
- Powell, R.R. & Connaway, L.S. (2004). *Basic research methods for librarians*, (4th ed.). Westport, CT: Libraries Unlimited.
- Powell, T. C. (2001). Competitive advantage: Logical and philosophical considerations. *Strategic Management Journal*, 22(9), 875-888.
- Prideaux, D. (2003). Curriculum design. *British Medical Journal*, 326(7383), 268–270.
- Print, M. (1989). *The development of a teaching practice curriculum: A territory-didactic investigation*. Westville: University of Durban.
- Rahman, I. (2010). *Students’ perceptions of effectiveness of hospitality curricula and their preparedness*. Master’s Thesis, University of Massachusetts Amherst.
- Rahman, I., Dennis, R., & Stefani, S. (2012). How green are North American Hotels? An exploration of low-cost adoption practices. *International Journal of Hospitality Management*, 31,720-727.

- Rankin, W.J. (2014). *Treatise on Process Metallurgy: Industrial Processes*, Stockholm: Royal Institute of Technology.
- Re-launched the make Zambia clean, green and healthy campaign. (2018, April, 28) *Qfmzambia*. Available at: <http://www.qfmzambia.com> [Retrieved 30th July, 2018).
- Robson, C. (1995). *Real World Research: A Resource for Social Scientists and Practitioner-Researchers*. John Wiley & Sons.
- Rodwell, G. (1978). *Skilbeck's model of school-based curriculum development and the Tasmanian Primary Education System*. A Master's thesis presented to the Tasmanian College of Advanced Education.
- Romm, N. & Ngulube, P. (2015). Mixed methods research, in Mathipa, ER & Gumbo, MT. (eds). *Addressing research challenges: making headway for developing researchers*. Mosala-MASEDIPublishers & Booksellers cc: Noordwyk, pp. 157-175.
- Rorty, R. (1989). *Contingency, irony and solidarity*. New York, NY: Cambridge University Press.
- Roth, B. P. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43 (4), 717-736.
- Ruhanen, L., Weiler, B., Moyle, B.D. & McLennan, C-I.J. (2015). Trends and patterns in sustainable tourism research: A 25-year bibliometric analysis. *Journal of Sustainable Tourism*, 23 (4), 517-535.
<https://doi.org/10.1080/09669582.2014.978790>
- Rule, P. & John, V. (2011). *Your guide to case study research*. Pretoria: Van Schaik Publishers.
- Rundle-Thiele, S. R., & Wymer, W. (2010). Stand-alone ethics, social responsibility, and sustainability course requirements. *Journal of Marketing Education*, 32, 5–12.

- Saechsische Carlowitz-Gesellschaft. (2013). *Die Erfindung der Nachhaltigkeit*. Leben, Werk und Wirkung des Hans Carl von Carlowitz. Muenchen: OekomVerlag.
- Salama, W. & Abdelsalam, E. (2021). Impact of Hotel Guests' Trends to Recycle Food Waste to Obtain Bioenergy. *Sustainability*, 13(6), 3094, doi: 10.3390/su13063094
- Sammalisto, K. (1999). *Greening experiences and ambitions as seen by students at some Swedish universities*. Accessed from: <http://www.hgur.se/envir/library.html> [Retrieved May 10 2022].
- Saunders, M., Lewis, P. & Thornhill, A. (2012). *Research methods for business students*, (6th ed.), Pearson Education Limited.
- Saylor, J. G., Alexander, W. M., & Lewis, A. J. (1981). *Curriculum planning for better teaching and learning* (4th ed.). New York, NY: Holt, Rinehart & Winston.
- Sengupta, E., Blessinger, P. & Yamin, T.S. (2020), Introduction to Integrating Sustainability into Curriculum, In Sengupta, E., Blessinger, P. and Yamin, T.S. (Ed.) *Integrating Sustainable Development into the Curriculum (Innovations in Higher Education Teaching and Learning*, Vol. 18), Emerald Publishing Limited, Bingley, pp. 3-14. <https://doi.org/10.1108/S2055-364120200000018018>
- Sharpley R. (2020). Tourism, sustainable development and the theoretical divide: 20 years on. *Journal of Sustainable Tourism*, 28 (11), 1932-1946, 10.1080/09669582.2020.1779732
- Simshauser, P., 2021. Vertical integration, peaking plant commitments and the role of credit quality in energy-only markets. *Energy Econ.* 105612.
- Skilbeck, N. (1984). *Model of school based curricula*. New York: T & G.
- Slaper, T. F., & Hall, T. J. (2011). The triple bottom line: What is it and how does it work? *Indiana Business Review*, 86(1), 4-8.
- Smit, T. & du Toit, P. (2016). Transforming beginner teacher mentoring interventions for

- Smith, M. & Krannich, R. (1998) Tourism dependence and residents' attitudes. *Annals of Tourism Research*, 25, 783–802.
- Smith, M. K. (1996, 2000). Curriculum theory and practice. *The Encyclopaedia of Informal Education*, www.infed.org/biblio/b-curric.htm
- social reform. *South African Journal of Education*, 36(3), 1-12.
- Sonetti, G., Sarrica, M., & Norton, L.S. (2021). Conceptualization of sustainability among students, administrative and teaching staff of a university community: An exploratory study in Italy. *Journal of Cleaner Production*, 316, 128292. <https://doi.org/10.1016/j.jclepro.2021.128292>.
- Steg, L. & Vlek, C. (2009). Encouraging pro-environmental behaviour. *Journal of Environmental Psychology*. 29: 309-317. <http://dx.doi.org/10.1016/j.jenvp.2008.10.004>
- Stern, P. C. (2000) New environmental theories: toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56(3), 407–424.
- Stich S. (1990). *The Fragmentation of reason*. Cambridge, (MA): MIT Press.
- Strauss, A. & Corbin, J. (1980). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: SAGE Publications.
- Strong, M. (1973). *Who speaks for earth?* New York, NY: Norton.
- Sutton, J. & Austin, Z. (2015). Qualitative research: data collection, analysis, and management. *The Canadian Journal of Hospital Pharmacy (CJHP)*, 68(3), 226-231.
- Taimur, S. (2020). Pedagogical Training for Sustainability Education. In: Leal Filho W., Azul A., Brandli L., Özuyar P., Wall T. (eds) *Quality Education. Encyclopedia of the UN Sustainable Development Goals*. Springer, Cham. https://doi.org/10.1007/978-3-319-69902-8_51-1.
- Tashakkori A & Teddlie C. (Eds). (2003a). *Handbook of mixed methods in social and behavioural research*, Thousand Oaks, CA: Sage.

- Tashakkori A, & Creswell, J.W. (2007). The new era of mixed methods. *Journal of Mixed Methods Research*, 1, 3–7.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage Publications.
- Tashakkori, A., & Teddlie, C. (2003b). Major issues and controversies in the use of mixed methods in the social and behavioural sciences. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioural research* (pp. 3-50). Thousand Oaks, CA: Sage.
- The Norwegian National Research Ethics Committee (2015). *Confidentiality*.
- Thelero, P. (2014). Understanding the tourism and hospitality sector. *Western Tourism Journal*, 32, (14), 48-61.
- Thomas, G et al. (2019). The need for an increased focus on incorporating sustainability into the hospitality curriculum. *Hospitality Journal*, 12(7): 45-67
- Tuckman, B. (1994). *Conducting Educational Research* (8th ed.). Fort Worth, TX: Brace
- UNEP. *Toward a Green Economy – Pathways to Sustainable Development and Poverty Eradication* (<http://www.unep.org/greeneconomy/online> Sept. 28, 2011)
- UNESCO. (2012). *From Green Economies to Green Societies: UNESCO’s Commitment to Sustainable Development*. Paris: UNESCO
- UNESCO. (2017a). *Education for sustainable development goals: Learning objectives*. United Nations Educational, Scientific and Cultural Organization, Paris.
Available at: <http://unesdoc.unesco.org/images/0024/002474/247444e.pdf>
- UNESCO. (2017b). *Greening Technical and Vocational Education and Training: A practical guide for institutions*. United Nations Educational, Scientific and Cultural Organisation, Bonn.
- UNESCO. (2018). *Integrating Education for Sustainable Development (ESD) in Teacher Education in South-East Asia: A Guide for Teacher Educators*. Paris: The United Nations Educational, Scientific and Cultural Organization.

- UNESCO-UIS (2012). *International Standard Classification of Education (ISCED 2011)*, UNESCO Institute for Statistics.
- United Nations Environment Programme. (1996). *Environmental Good Practice in Hotels: Case Studies from the International Hotel & Restaurant Association Environmental Award*. Paris: UNEP.
- UNWTO (2005). *Sustainable Development of Tourism*. Available at: <http://sdt.unwto.org/content/about-us-5> (Accessed 17th November, 2020).
- Van der Merwe, M. & Wocke, A. (2007). An introduction to responsible tourism practice in the South African hotel industry. *South African Journal of Business Management*, 38(2), 1-15.
- Vogt, W.P. (2007). *Quantitative research methods for professionals*. Boston, MA: Allyn & Bacon.
- Waas, T., Hugé, J., Verbruggen, A., & Wright, T. (2011). Sustainable development: A bird's eye view. *Sustainability*, 3, 1637–1661. doi:10.3390/su3101637.
- Wade, H. (2014). Curriculum inclusion for the hospitality industry trainee in Ghana. *Green Management Journal*, 13(5), 62-79.
- Wade, J. (1999). Students as environmental change agents. *Journal of Hospitality and Tourism Education*, 9(2), 16-20.
- Wade, J. A. (1999). Students as environmental change agents. *International Journal of Contemporary Hospitality Management*, 11(5), 251-255.
- Wallin, J.J. (2011). What is Curriculum? Theorising: for a People Yet to Come. *Studies in Philosophy and Education*, 30, 285-301.
- Wamsler, C. (2020) Education for sustainability: Fostering a more conscious society and transformation towards sustainability. *International Journal of Sustainability in Higher Education*: 10 (21), 2019-0152
- Webster, K. (2000). *Environmental management in the hospitality industry: A guide for students and managers*. London: Cassell..

- Wiles, J. W., & Bondi, J. C. (2014). *Curriculum development: A guide to practice* (9th ed.). Boston, MA: Pearson.
- Wolff, E. (2015). The integration of green economy content into the Life Sciences curriculum. Master of Education dissertation, University of Pretoria.
- World Commission on Environment and Development (WCED). (1987). *Our Common Future*. New York: Oxford University Press.
- Wright, P. (2007). Tertiary education curriculum skills assessment. *Journal for Tourism Management*, 32(25), 172-192.
- Wright, T. S. A. (2002). Definitions and frameworks for environmental sustainability in higher education. *International Journal for Sustainability in Higher Education*, 3(3), 203–220.
- Wright, T.S.A. (2007). Developing research priorities with a cohort of higher education for sustainability experts, *International Journal of Sustainability in Higher Education*, 8(1), 34-43.
- WWF Global. (2015). *Resource management in Zambia*. Geneva: Environmental Report.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Young, M. (2014). Curriculum Theory: What It Is and Why It Is Important, *Cadernosde Pesquisa*, 44(151), 190-2001.
<https://doi.org/10.1590/198053142851>
- Zengeni, N., Zengeni, D. M. F. & Muzambi, S. (2013). Hoteliers' Perceptions of the Impacts of Green Tourism on Hotel Operating Costs in Zimbabwe: The Case of Selected Harare Hotels. *Australian Journal of Business and Management Research* 2 (11), 64-73.

Zulu, 2016

APPENDICES

Appendix I: Interview Guide for Heads of Department in Training Institutions

Research Title: A Proposed Model for Integrating Concepts and Green Practices into The Curricula of Selected Tourism and Hospitality Training Institutions of Zambia

Dear Respondent,

My name is Mirriam Moonga, a special research fellow (PhD student) in the School of Education at the University of Zambia. I am conducting research through a questionnaire, on the topic “Sustainability Education: Examining the Tourism and hospitality curricula for Green Practices in Selected Training Institutions in Zambia”. As you may be aware, greening is “knowledge and practices conducive to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources” (Micioni, 2009).

Any views expressed will be treated as confidential and any quotes used will be anonymous. The information you supply will only be used for academic purposes. Your participation in the study will be greatly appreciated. You are invited to voluntarily participate by responding to the questionnaire.

Questions

1. Explain what you understand by the term green practice
Prompt: A wide range of topics, Environmental sustainability issues, hygiene and sanitation
Probe: Kindly give examples of some areas
2. Do you think the curriculum for training hospitality industry workers cover components on green practices?
Prompt: Energy efficiency, water conservation, waste management, etc.
Probe: Please explain if these are taught as standalone components or mainstreamed in other topics
3. What other green components do you cover?
Prompt: Green transport, green buildings, healthy consumption, green technology, renewable resources
Probe: Please tell me which ones are more common at the moment?

4. Around what pedagogical and instructional principles is green practices organized in the hospitality training institutions in Zambia?
 Prompt: Education for sustainability, Environmental Education, green guidelines
 Probe: Can you please explain how the institution has embraced education for sustainability
5. How is environmental sustainability taught in your institution?
 Prompt: using theory, practicals, or both
 Probe: Can you explain how this is done?
6. Is the green component of the course examinable?
 Prompt: In theory, in practicals.
 Probe: Do trainees learn green aspects for examination purposes or to change attitudes?
7. If it is not examinable, how do you assess your trainees' knowledge about green practices?
 Prompt: Through their practices, attitudes,
 Probe: If examinable, what part of the examination: compulsory or optional questions?
8. Do you have trained staff to teach components on green practices?
 Prompt: sometimes yes, sometimes not
 Probe: Please tell me where, when and how they were trained.
9. As a training institution, how have you responded to 'make Zambia clean, green and healthy campaign in your curriculum and in the institution as a whole?
 Prompt: Through environmental sustainability issues, hygiene and sanitation
 Probe: Can you please tell me the green components you would like to be integrated in your curriculum?
10. As management of this training institution, do you think the green component is important?
 Prompt: Yes, it is, I think so, I don't think so
 Probe: Please give details for your answer
11. If your answer is yes to the question above, do you have plans to introduce it in your curriculum?
 Prompt: Yes, we do, No we don't, No idea
 Probe: Is it going to be a standalone or mainstreamed in other topics?

12. Do you have any challenges mainstreaming the green practices into the curriculum?

Prompt: We contribution content to the curriculum preparation through TEVETA which if the final designer.

Probe: As a training institution, what are the key green components you would like to be integrated /mainstreamed to transform the curriculum into a green one?

13. Are you aware of any policy statement about the inclusion of greening in the curriculum?

Prompt: Yes, we do, No we don't

Probe: Would you like to find out about it?

14. As an institution, what are you doing in order to keep the institution clean and green?

15. As management, do you participate in the weekly clean ups following the Presidential decree of 'Making Zambia Clean and Green'?

16. How sustainable is the cleaning exercise at the institution level?

17. Are the students involved in the monthly cleaning exercise?

Prompt: sometimes yes, sometimes not

Probe: Any special programme for them?

NB: Any other questions that may be deemed fit to the study will be factored in.

Thank you for your time.

Appendix II: Interview Guide for Managers in Universities and Training Institutions

Research Title: Sustainability Education: Examining the Tourism and hospitality curricula for Green Practices in Selected Training Institutions in Zambia.

Dear Respondent,

My name is Mirriam Moonga, a special research fellow (PhD student) in the School of Education at the University of Zambia. I am conducting research through an interview, on the topic “Sustainability Education: Examining the Tourism and hospitality curricula for Green Practices in Selected Training Institutions in Zambia”. As you may be aware, greening is “knowledge and practices conducive to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources” (Micioni, 2009).

Any views expressed will be treated as confidential and any quotes used will be anonymous. The information you supply will only be used for academic purposes. Your participation in the study will be greatly appreciated. You are invited to voluntarily participate by responding to the questionnaire.

QUESTIONS

1. Explain what you understand by the term green practice.
2. Are green practices included in the curricula for tourism and hospitality training institutions?
3. If your answer to question 2 is no, why are green practices not included in the curricula for tourism and hospitality training institutions?
4. If your answer to question 2 is yes, kindly indicate the specific components you cover under green practices
5. How do you integrate green practices in your training curriculum?
6. Explain how green practices are mainstreamed in your training curriculum
7. Do you think the curriculum for training hospitality industry workers cover all the components on green practices?
8. If not all, what relevant practices/components do you think are not included in the curricula for tourism and hospitality training institutions?

9. Do you have trained staff to teach components on green practices?
10. Is the green component of the course examinable?
11. If it is not examinable, how do you assess your trainees' knowledge about green concepts and practices?
12. As management of this training institution, do you think the green component is important?
13. Around what pedagogical and instructional principles is green practices organized in the hospitality training institutions in Zambia?
14. How is environmental sustainability taught in your institution?
15. As a training institution, how have you responded to 'Make Zambia clean, green and healthy campaign 'in your curriculum and in the institution as a whole?
16. If your answer is yes to the question above, do you have plans to introduce it in your curriculum or as an extra-curriculum activity?
17. In your opinion, which methods of teaching greening/sustainability would produce the best results?
18. In your opinion, how best can greening/sustainability be taught within the tourism and hospitality curriculum?
19. Do you have any challenges mainstreaming the green practices into the curriculum?
20. Are you aware of any policy statement about the inclusion of greening in the curriculum?

NB: Any other observations that may be deemed fit to the study can be factored in.

Thank you for your time.

Appendix III: Semi-Structured Questionnaire for Lecturers in Training Institutions

Research Title: A Proposed Model for Integrating Concepts and Green Practices into The Curricula of Selected Tourism and Hospitality Training Institutions of Zambia

Dear Respondent,

My name is Mirriam Moonga, a special research fellow (PhD student) in the School of Education at the University of Zambia. I am conducting research through a questionnaire, on the topic “Sustainability Education: Examining the Tourism and hospitality curricula for Green Practices in Selected Training Institutions in Zambia”. As you may be aware, greening is “knowledge and practices conducive to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources” (Micioni, 2009).

Any views expressed will be treated as confidential and any quotes used will be anonymous. The information you supply will only be used for academic purposes. Your participation in the study will be greatly appreciated. You are invited to voluntarily participate by responding to the questionnaire.

Instructions

Before you answer this questionnaire, please remember the following;

- There are two {2} sections in this questionnaire. Answer all questions, in all sections.
- Please read each question very carefully.
- Kindly tick in the spaces provided.
- Where writing space is provided, please write your responses clearly.
- Be sure to answer all items as required.
- Do not tick more than one option on a single scale, unless you are instructed to do so.
- Some of the questions may appear to be similar, but they address different issues.

Section A: Biographical Information

1. What is your age range?

- 20-25 { }
- 26-35 { }
- 36-45 { }
- 46-55 { }
- 55 and above { }

2. What is your gender?

- Female { }
- Male { }

3. Highest level of education attained.

- Primary { }
- Secondary { }
- Tertiary { }
- Others Specify {.....}

4. If tertiary, what is your highest qualification?

- Certificate in hotel management { }
- Advanced Certificate in hotel management { }
- Diploma in travel and tourism management { }
- Advance diploma in travel and tourism management { }
- Master's Degree in hotel management { }
- Bachelor of Science in hospitality management { }
- Doctorate degree

5. How long have you been working as a lecturer?

- 1-5 years { }
- 6-10 years { }
- 11-15 years { }
- 16-20 years { }
- 21 and above { }
- Others Specify {.....}

6. What is your area of specialization as a lecturer?

.....
.....

7. As a training institution, what levels of training do you offer?

- Certificate programmers { }
- Diploma programmers { }
- Advanced Diploma programmes { }
- Degree programmes { }
- Any other programme { }

8. What is your target group?

- School leavers { }
- In-service { }
- Any other { }

9. What is the entry requirement?

- School certificate { }
- Grade 9 school leavers { }

Working class { }

Section B: Substantive questions related to integrating/mainstreaming green practices into hospitality training institutions curricula.

10. You understand the meaning of green practices

Strongly agree { }

Agree { }

Not sure { }

Disagree { }

Strongly disagree { }

11. Where did you first learnt about it

12. If you agree to question 10, please indicate same areas involved

13. Does the syllabus for training hospitality industry workers cover components on green practices

Yes { }

No { }

Not sure { }

14. If the answer to question 13 is yes, name the green components the curricular covers?

-
-
-

•

15. How is the integration/mainstreaming done?

Is the content left to individual lecturers during presentations or { }

The content is integrated in the instructional materials such as modules? { }

16. If the answer to question 13 is no, why are green practices not mainstreamed in the curricular.

17. Do you think that green practices education is relevant to your training curriculum?

Strongly agree { }

Agree { }

Not sure { }

Disagree { }

Strongly disagree { }

18. In your opinion, state how green practices can be mainstreamed in the curricular?

19. What components of green practices should be integrated in the curricular at different levels?

20. Are components of green practices taught as standalone topics?
- Yes { }
- No { }
- Not sure { }
21. If your answer to question 10 is yes, are the components mainstreamed in other topics?
- Yes { }
- No { }
- Not sure { }
22. Does your training institution stock relevant teaching and learning materials in greening hospitality industry?
- Strongly agree { }
- Agree { }
- Not sure { }
- Disagree { }
- Strongly disagree { }
23. Around what pedagogical and instructional principles is green practices organized in the hospitality training institutions in Zambia?
-
-
24. Environmental sustainability is taught in your institution
- Strongly agree { }
- Agree { }
- Not sure { }

- Disagree {}
- Strongly disagree {}

25. Is the green component examinable?

- Yes {}
- No {}
- Not sure {}

26. Do trainees learn green aspects for examination purposes or to change attitudes?

- Yes {}
- No {}
- Not sure {}

27. If it is not examinable, how do you assess your trainees' knowledge about green practices

.....

Thank you for your time

Appendix IV: Questionnaire for Senior Students in Hospitality Training Institutions

Research Title: A Proposed Model for Integrating Concepts and Green Practices into the Curricula of Selected Tourism and Hospitality Training Institutions of Zambia

Dear Respondent,

My name is Mirriam Moonga, a special research fellow (PhD student) in the School of Education at the University of Zambia. I am conducting research through a questionnaire, on the topic indicated above. As you may be aware, greening is “knowledge and practices conducive to more environmentally friendly and ecologically responsible decisions and lifestyles, which can help protect the environment and sustain its natural resources” (Micioni, 2009).

Any views expressed will be treated as confidential and any quotes used will be anonymous. The information you supply will only be used for academic purposes. Your participation in the study will be greatly appreciated. You are invited to voluntarily participate by responding to the questionnaire.

Before you answer this questionnaire, please remember the following:

- There are two (2) sections in this questionnaire. Answer all the questions in both sections.
- Please read each question very carefully.
- Kindly tick in the spaces provided.
- Where writing space is provided, please write your responses clearly.
- Be sure to answer all items as required.
- Do not tick more than one option on a single scale, unless you are instructed to do so
- Some of the questions may appear to be similar, but they address different issues.
- Before you start answering questions in Section B, start by reading through the contents of the dialogue box in order for you to familiarize yourself with green or eco-friendly practices.

SECTION A: Biographical Information

28. What is your age range?

- 20-25 { }
- 26-35 { }
- 36-45 { }
- 46-55 { }
- 55 and above { }

29. What is your gender?

- Female { }
- Male { }

30. What programme are you pursuing?

- A. Bachelor of Science in hospitality management { }
- B. Bachelor in tourism and hospitality management { }
- C. Master’s Degree in hotel management { }
- D. Doctorate degree { }
- E. Others specify (.....)

31. What is your year of study?

- A. Third year { }
- B. Fourth year { }
- C. Others Specify (.....)

32. How long is your programme?

- A.3 years { }
- B. 4 years { }
- C.5 years { }
- D. Not sure { }

Section B: Dialogue Box

Some Examples of Green Practices / Eco-friendly / Sustainability Initiatives

Use of:

- Energy saving bulbs
- Electric vehicles
- Clean energy sources (solar, wind, water and bio-fuel)
- Smart power strips / switch and save light and appliances when not in use
- Open windows instead of using air conditioner/cooler
- Drape curtains to control temperature
- Unleaded fuel
- Low-flow toilets
- Low-flow faucet aerators in the bathrooms, showers and kitchen sinks
- Recycled water in the gardens and lawns
- Water in the cup to brush the teeth / quick showers
- Water harvest
- Hang clothes to dry
- Towel and linen changes on demand only
- Natural cosmetics and cleaning products
- Biodegradable packing materials in the laundry
- Own shopping bag / buying eco-friendly products (organic foods)
- Reusable items (plates, glasses and other utensils)
- Signage for each waste (food, paper, plastics, metal, clothing, electronics)
- Reuse, repair, recycle, repurpose and recover

- Print on both sides of paper
- Printing on recycled paper
- Tree planting
- Calculate the carbon footprint for your business
- Bike rank for employees and customers
- Cycling and walking to work / riding on public transport
- Baseline for water, energy and waste (to measure environmental impacts)
- Certificate of green business

33. Suggest other green / eco-friendly practices which you think have been left out of the dialogue box.

A.

B.

C.

D.

34. To what extent would you say issues to do with green/eco-friendly practices were covered in the following topics in you lectures?

- Curriculum Content
- Not Covered
- Fairly Covered
- Very Much Covered
- Not Sure

A. Hotel and Tourism Industry

B. Customer Care

C. Nutrition and Hygiene in Catering

D. Safety and First Aid

E. Communication Skills

- F. Front Office Operations
- G. Food and Beverage Service Techniques
- H. Housekeeping Operations
- I. Cookery
- J. Business Accounting in Hospitality Industry
- K. Computer Application
- L. Food and Beverage Costing and Control
- M. Menu Planning
- N. Interior Decoration
- O. Legal Aspects of the Hospitality Industry
- P. Front Office Cashiering and Accounts
- Q. Pastry Making
- R. Principles of Management
- S. Entrepreneurship.
- T. Sales and Marketing
- U. Housekeeping Management (Theory/Practical)
- V. Menu Planning and Food Commodities
- W. Hospitality Purchasing and Logistics
- X. Principles of Food Production (Theory/Practical)
- Y. Tour Guiding and Customer Care
- Z. Food Costing and Control
- AA. Leisure and Recreation Management
- BB. Food and Beverage Service and Hygiene (Theory/Practical)
- CC. Industrial Attachment/Internship
- DD. Front Office Operations Practical
- EE. Food Production Practical
- FF. Tourism and hospitality marketing
- GG. Tourism Planning and Development
- HH. Events planning and management

II. Entrepreneurship

- International tourism and geography
- Business research method

- Environmental Studies

35. (a) Do you think green practices are important to the following groups of people?

Groups of People

- A. Trainees in tourism and hospitality industry
- B. Managers in tourism and hospitality industry
- C. Customers/ tourists in tourism and hospitality industry
- D. Builders
- E. Farmers
- F. Learners in schools at all levels

- (a) Yes
- (b) No
- (c) Not Sure

35 (b) If your answer to question 3a is yes, give reasons why green practices are important.

.....
.....
.....

36. Indicate areas in which green/eco-friendly practices are emphasised:

- (a) in theory (b) in practical (c) in both (d) in examinations (e) not sure

37. How often would you say green practices are emphasized by your lecturers?

- (a) Not often (b) Often (c) Very often (d) Not sure

38. Are green practices emphasized in?

- (a) Not often (b) Often (c) Very often (d) Not sure

- A. Lectures

B. Assignments

C. Research

D. Others (indicate):

39. How conscious are you about eco-friendly practices in your actions?

(a) Very conscious (b) Conscious (c) Not conscious (d) Not sure

40. Are there any green components in the topics covered so far? (a) Yes (b) No (Not sure)

41. If the answer to question 8 is no, give reasons why?

.....
.....
.....

42. If the answer is yes, indicate other green practices / green innovations which you think are important to the industry:

A.

B.

C.

D.

43. Kindly make further suggestions about how your programme can further be improved to include green practices.

Appendix V: Document Analysis Checklist

Examples of green practices / ecofriendly / sustainability initiatives used in curriculum analysis and other document analysis parameters.

Item	Green/ Best Practice
Water	<ul style="list-style-type: none"> • Low flow fixtures • Grey water • Low-flow toilets • Low-flow faucet aerators in the bathrooms, showers and kitchen sinks • Recycled water in the gardens and lawns • Use water in the cup to brush the teeth • take quick showers • Water harvest • Reuse programmes
Energy	<ul style="list-style-type: none"> • Compact efflorescent lights • Energy star efficient • Renewable energy • Occupancy sensors • Energy saving bulbs • Hang clothes to dry in the sun • Smart power strips / switch and save light and appliances when not in use
Solid waste management	<ul style="list-style-type: none"> • Recycle • Reduce • Reuse • repair • repurpose • recover • Composting • Refillable amenities • Segregate each type of waste (food, paper, plastics, metal, clothing, electronics)
Air Quality	<ul style="list-style-type: none"> • Low volatile organic compounds • Air filtration • Cut vehicle pollution • Open windows instead of using air conditioner/cooler • Drape curtains to control temperature
Environmental purchasing	<ul style="list-style-type: none"> • Paper made from recycled products • Purchase of organic food • Purchase locally grown food • Purchase from environmentally responsible vendors

	<ul style="list-style-type: none"> • Carry own shopping bag • buying eco-friendly products (organic foods) • Natural cosmetics and cleaning products • Reusable items (plates, glasses and other utensils)
Transport	<ul style="list-style-type: none"> • Electric vehicles • Unleaded fuel • Low sulphur diesel • Bike rank for employees and customers • Cycling and walking to work • riding on public transport
Clean energy sources	<ul style="list-style-type: none"> • solar • wind • water • bio-fuel
Laundry	<ul style="list-style-type: none"> • Biodegradable packing materials in the laundry • Towel and linen changes on demand only • Less toxic laundry products
Front office	<ul style="list-style-type: none"> • Print on both sides of paper • Printing on recycled paper • E-tickets and receipts • Online booking

Appendix VI: Ethical Clearance



THE UNIVERSITY OF ZAMBIA DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

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Approval of Study

21st March, 2019

REF NO. HSSREC: 2018-SEP-005A

Ms. Mirriam S. Moonga
University of Zambia
School of Education
Department of LSSE
Box 32379
LUSAKA

Dear Ms. Moonga,

RE: "MAINSTREAMING GREEN PRACTICES INTO THE CURRICULA OF TOURISM AND HOSPITALITY TRAINING INSTITUTIONS IN ZAMBIA"

Reference is made to your resubmission. The University of Zambia Humanities and Social Sciences Research Ethics Committee IRB resolved to approve this study and your participation as Principal Investigator for a period of one year.

Review Type	Ordinary / Expedited Review	Approval No. REF No. HSSREC: 2017-MARCH-00
Approval and Expiry Date	Approval Date: 21 st March, 2019	Expiry Date: 20 th March, 2020
Protocol Version and Date	Version-Nil	20 th March, 2019
Information Sheet, Consent Forms and Dates	• English.	To be provided
Consent form ID and Date	Version	To be provided
Recruitment Materials	Nil	Nil

Excellence in Teaching, Research and Community Service

Appendix VII: TEVETA Tourism and Hospitality Training Curriculum

1. Advanced Certificate in Hospitality Management

- Module 225-01-A: Hotel and Tourism Industry
- Module 225-02-A: Customer Care
- Module 225-03-A: Nutrition and Hygiene in Catering
- Module 225-04-A: Safety and First Aid
- Module 225-05-A: Communication Skills
- Module 225-06-A: Front Office Operations
- Module 225-07-A: Food and Beverage Service Techniques
- Module 225-08-A: Housekeeping Operations
- Module 225-09-A: Cookery
- Module 225-10-A: Business Accounting in Hospitality Industry
- Module 225-11-A: Computer Application
- Module 225-12-B: Food and Beverage Costing and Control
- Module 225-13-B: Menu Planning
- Module 225-14-B: Interior Decoration
- Module 225-15-B: Legal Aspects of the Hospitality Industry
- Module 225-16-B: Front Office Cashiering and Accounts
- Module 225-17-B: Pastry.
- Module 225-18-B: Principles of Management
- Module 225-19-B: Entrepreneurship.
- Module 225-20-B: Sales and Marketing
- Module 225-21-B: Food Commodities.

2. Diploma in Travel and Tourism Management

- (b) Module 129-01-A: Economics and Structure of Travel and Tourism
- (c) Module 129-02- A: Travel Agency Practice
- (d) Module 129-03-A: Fares and Ticketing
- (e) Module 129-04-A: Domestic Tourism
- (f) Module 129-05-A: Tour Operations and Guiding
- (g) Module 129-06-A: Customer Care

- (h) Module 129-07-A: Communication Skills
- (i) Module 129-08-A: Computer Application
- (j) Module 129-09-B: Tourism Planning and Development
- (k) Module 129-10-B: International Tourism
- (l) Module 129-11-B: Environmental Studies
- (m) Module 129-12-B: Sales and Marketing
- (n) Module 129-13-B: Entrepreneurship
- (o) Module 129-14-B: Principles of Management
- (p) Module 129-15-C: Tourism Marketing
- (q) Module 129-16-C: Tourism Management
- (r) Module 129-17-C: Human Resources Management
- (s) Module 129-18-C: Travel and Tourism Law
- (t) Module 129-19-C: Management Accounting. (TEVETA, 2007)

3. Bachelor of Science in Hospitality Management

First Year Semester 1

Module No	Title
• Module: BSHM101	Business Communication
• Module: BSHM102	Information Technology
• Module: BSHM103	Introduction to Tourism and Hospitality Industry
• Module: BSHM104	Business Accounting in Hospitality Industry
• Module: BSHM105	Front Office Management (Theory/Practical)

Semester 2

Module No	Title
• Module: BSHM106	Housekeeping Management (Theory/Practical)
• Module: BSHM107	Foreign Language
• Module: BSHM108	Tourism and hospitality Law
• Module: BSHM109	Travel and Tourism Operations
• Module: BSHM110	Tourism Operations and Management

Second Year Semester 1

Module No	Title
• Module: BSHM201	Ethics in Tourism and Hospitality Management,
• Module: BSHM202	Menu Planning and Food Commodities
• Module: BSHM 203	Hospitality Purchasing and Logistics,
• Module: BSHM 204	Principles of Food Production (Theory/Practical)
• Module: BSHM205	Tour Guiding and Customer Care.

Semester 2

Module No	Title
• Module: BSHM 206	Labour and Industrial Relations,
• Module: BSHM 207	Food Costing and Control,
• Module: BSHM208	Leisure and Recreation Management
• Module: BSHM 209	Food and Beverage Service and Hygiene (Theory/Practical)
• Module: BSHM210	Principles of Psychology and Sociology

Third year

Semester 1

Module No	Title
• Module: BSHM 301	Industrial Attachment/Internship
• Module: BSHM302	Front Office Operations Practical
• Module: BSHM303	Housekeeping Operations Practical
• Module: BSHM304	Food and Beverage Service Practical
• Module: BSHM305	Food Production Practical

Semester 2

Module No	Title
• Module: BSHM306	Management Accounting,
• Module: BSHM307	Tourism and hospitality marketing

- Module: BSHM308 Economics in Tourism and Hospitality
- Module: BSHM309 Tourism Planning and Development
- Module: BSHM310 Strategic Human Resource Management

Fourth year

Semester 1

- | Module No | Title |
|-------------------|--|
| • Module: BSHM401 | Management and Organisation Behaviour, |
| • Module: BSHM402 | Management Information System, |
| • Module: BSHM403 | Events planning and management, |
| • Module: BSHM404 | International tourism and geography, |
| • Module: BSHM405 | Business research method |

Semester 2

- | Module No | Title |
|-------------------|--|
| • Module: BSHM406 | Contemporary Issues in Tourism Industry, |
| • Module: BSHM407 | Corporate Strategies and Planning, |
| • Module: BSHM408 | Financial Management, |
| • Module: BSHM409 | Entrepreneurship |
| • Module: BSHM 10 | Consultancy Project/Dissertation |

(Sylvia et al 1991, TEVETA, 2012).

Appendix VIII: Livingstone International University of Tourism Excellence and Business Management (LIUTEBM), Faculty of Tourism and Hospitality Curriculum

Bachelor of Arts in Hospitality Management Course Outline

Foundation Studies

YEAR 1

Semester 1:

LUFS 111 Introduction to Business Communication

LUFS 112 Introduction to Business accounting and Finance

LUFS 113 Introduction to Information Technology

LUFS 114 Introduction to Business Management

Semester 2:

LUFS 121 Introduction to Business Mathematics and Statistics

LUFS 122 Introduction to Psychology and sociology

LUFS 123 Introduction to Zambian legal Process

LUFS 124 Introduction to Entrepreneurship

YEAR 2

Semester I:

BEBA112 Microeconomics

BEBA 111 Business Communication

BEBA113 Business Accounting

BEBA 114 Information Technology

THHM111 Introduction to the Hospitality Industry

Semester 2:

THHM121 Front Office Operations Management

THHM122 House Keeping Operations Management

THHM123 Tourism Geography

THHM124 Hospitality & Tourism Marketing

BEBA 121 Managerial Accounting

YEAR 3

Semester 1:

THHM 211 Health and Hygiene Management

THHM 212 Food and Beverage Management

THHM 213 Hospitality & Tourism Law

THHM 214 Hospitality Purchasing and Logistics

BEBA 211 Marketing Research

Semester 2:

THHM 221 Travel and Tour Operations

BEBA 215 Human Resources Management

BEBA 216 Management Theory & Practice

THHM 222 Hospitality & Tourism Economics

BEBA 224 Corporate Strategy

YEAR 4

Semester 1:

BEBA 311 Financial Management

THHM 311 Events Management

THHM 312 International Hospitality & Tourism

THHM 313 Contemporary Issues in Hospitality & Tourism

BEBA 315 Business Research Methods

Semester 2:

THHM 327 Hospitality Facilities

THHM 326 Leisure and Recreation

BEBA321 Business Ethics and Corporate Governance

BEBA324 Dissertation

Faculty of Tourism and Hospitality: Bachelor of Arts in Travel and Tourism Management Course Outline

Foundation Studies

YEAR 1

Semester 1:

LUFS 111 Introduction to Business Communication

LUFS 112 Introduction to Business accounting and Finance

LUFS 113 Introduction to Information Technology

LUFS 114 Introduction to Business Management

Semester 2:

LUFS 121 Introduction to Business Mathematics and Statistics

LUFS 122 Introduction to Psychology and sociology

LUFS 123 Introduction to Zambian legal Process

LUFS 124 Introduction to Entrepreneurship

YEAR 2

Semester I:

BEBA112 Microeconomics

BEBA 111 Business Communication

BEBA113 Business Accounting

BEBA 114 Information Technology

THHM111 Introduction to the Hospitality Industry

Semester 2:

THHM121 Front Office Operations Management

THHM122 House Keeping Operations Management

THHM123 Tourism Geography

THHM124 Hospitality & Tourism Marketing

BEBA 121 Managerial Accounting

YEAR 3

Semester 1:

- THHM 211 Health and Hygiene Management
- THHM 212 Food and Beverage Management
- THHM 213 Hospitality & Tourism Law
- THHM 214 Hospitality Purchasing and Logistics
- BEBA 211 Marketing Research

Semester 2:

- THHM 221 Travel and Tour Operations
- BEBA 215 Human Resources Management
- BEBA 216 Management Theory & Practice
- THHM 222 Hospitality & Tourism Economics
- BEBA 224 Corporate Strategy

YEAR 4

Semester 1:

- BEBA 311 Financial Management
- THHM 311 Events Management
- THHM 312 International Hospitality & Tourism
- THHM 313 Contemporary Issues in Hospitality & Tourism
- BEBA 315 Business Research Methods

Semester 2:

BEBA 312 Strategic Management

THHM325 Tourism Planning & Development

BEBA321 Business Ethics and Corporate Governance

BEBA324 Dissertation

Faculty of Business and Globalization**Master of Art in Tourism and hospitality Management Course Outline****Semester 1:**

MBA 511 Management of Information Systems

MBA 512 Marketing Management

MBA 513 Financial Analysis for Managers

MBA 514 Strategic Management

MBA 515 Entrepreneurship

Semester 2:

MBA 525 Business Research Methods

MBA 521 Leadership and Organization Behaviour

THHM520 Managing Hospitality Industry

THHM524 Managing Food and Beverage

Semester 3:

MBA531 Business Ethics and Governance

MBA 532 Dissertation/Research

(LIUTEBM, 2013)

Appendix IX: Chalimbana University: Tourism and Hospitality Curriculum

YEAR 1

COURSE CODE	COURSE TITLE
BHT 1101	Introduction to tourism and hospitality industry
FOP1101:	Front office operations
FPC 1101	Food Science and Nutrition in the Hospitality Industry
FPC 1100:	Introduction to Culinary Skills
BHT 1201	Business Communication Skills
BTM 1101	Principles of Travel and Tourism
BHT 1401	Professional Ethics in Tourism and hospitality Industry
HKP 1100	Introduction to Housekeeping and Laundry operations
FBS 1101	Introduction to food and Beverage service operations
BTM 1201	Travel and Tourism industry Operations
ICT 1101	Fundamentals of Computer System
HMT 1101	Introduction to leisure and Recreation

YEAR 2

COURSE CODE	COURSE TITLE
FBS 2100:	Food and Beverage Management
FPC 2100:	Professional Culinary Skills
HKP 2100:	Accommodation and Laundry Management

FOM 2101:	Front office operations and management
BTM 2101	Domestic Tourism
BTM 2401	Environmental Management for Tourism
BHT 2100:	Tourism Operations Management
BHT 2101	Management and Organisation Behaviour
BHT 2201	Entrepreneurship in Tourism and Hospitality Industry
BHT 2301	Principles of Accounting
BIO 2101:	Food Microbiology
OCS 2101	Occupational Safety, Health, Security and Environment

YEAR: 3

COURSE CODE COURSE TITLE

BRM 3101	Business Research Methods I
HMT 3101:	Tourism and hospitality Business Legal environment
HMT 3201:	Event Management Principles and Practices
HKP3101:	Exterior and interior decoration
BTM 3101	Tour Guiding
BTM 3201	Introduction to Wildlife Tourism
BHT 3101:	Human Resources Management
BHT 3201:	Sustainable Tourism Planning and Development
FLP 1101	Introduction to Foreign Languages (French)

BHT 3301: Work Experience (Industrial Attachment)

YEAR: 4

COURSE CODE COURSE TITLE

BHT 4101: Tourism and hospitality Marketing

BHT 4201 Strategic Management

BHT 4301: Hospitality Cost Control

BRM 4103 Business Research Methods II

BHT 4103 Principles of Economics

BHT 4105 Entrepreneurship in Tourism and Hospitality Industry II

BHT 4102 Financial Management

BHT 4101 International Tourism and Cultural Anthropology

FPC 4101 Food science and service Technology

BMC 4101 Work Experience (Internship)

(Chalimbana University, 2020)

Appendix X: Hong Kong Polytechnic University Curriculum

Manual on Module V –Trends and Issues in the Tourism and Hospitality Industry

Contents

1. Introduction to Current Issues in Tourism and Hospitality
2. Sustainable Tourism
 - The Concept of Sustainable Tourism
 - Tourism and Sustainable Development - Application of Its Principles in Tourism
 - UNWTO's Definition of Sustainable Tourism
 - Achieving Sustainable Tourism Guidelines for - An Agenda for Sustainable
 - Tourism and Its Twelve Aims
 - Sustainable Tourism Development Case Studies
3. Tourism and Hospitality Issues Induced by Globalization
 - Globalization
 - Cultural Homogenization
 - Mass Tourism and Sustainability
 - Exploitation and Fair Trade
4. Trends in Tourism and Hospitality - Economical Aspect
 - Tourism Sector
 - Accommodation Sector
 - Food and Beverage Sector
5. Trends in Tourism and Hospitality - Social-cultural Aspect
 - Social-cultural Aspects of the Tourism and Hospitality Industry
 - Trends Relating to Social-cultural Aspects
6. Trends in Tourism and Hospitality - Environmental Aspect
 - Tourism Sector
 - Accommodation Sector

- Food and Beverage Sector

7. Trends in Tourism and Hospitality - Technological Aspect

- Tourism Sector
- Accommodation Sector
- Food and Beverage Sector

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(UNWTO, 2005)

Appendix XI: Most Common Environmental Practices for Bulgarian Accommodation Establishments Research Instruments

- (a) Waste separation
- (b) Contract with a company to buy / process separated waste
- (c) Waste composting
- (d) Solar panels for electricity
- (e) Policy for energy saving by the employees
- (f) Policy for energy saving by the tourists
- (g) Energy-saving electric bulbs
- (h) Movement detectors for controlling lights in common areas
- (i) Movement detectors for controlling lights in rooms
- (j) Use of energy-saving appliances (class A or higher)
- (k) Water cleaning (before being used by the tourists)
- (l) Water cleaning (after being used by the tourists)
- (m) Solar panels for warm water
- (n) Policy for water saving by the employees
- (o) Policy for water saving by the tourists
- (p) Water tap aerators
- (q) Water tap photocells for water consumption control
- (r) Thermo-insulation of the building
- (s) Hydro-insulation of the building
- (t) Clean towels upon request only
- (u) Own production of food products (e.g., milk, yoghurt, meat)
- (v) Use of bio/eco food products
- (w) Use of recycled paper for administrative purposes
- (x) Natural bath cosmetics
- (y) Cleaning with bio-degradable substances

Appendix XII: Tourism and Hospitality Training Institutions

No	Institution	No of Managers and Heads of Departments
1	Chalimbana University	2
2	Chelstone Youth Centre	2
3	Chreso University	2
4	Dzithandizeni Trust Trades School	1
5	Lusaka Youth Resource Centre	2
6	Lusaka Air Travel and Hospitality Academy	2
7	Lusaka Business and Technical College	2
8	L/stone International University of Tourism Excellence and Business Management	2
9	Sylva University	2
10	Zambia Institute for Tourism and Hospitality Studies- ZITHS	3