CURRICULUM CHANGES AND IMPLEMENTATION IN ESWATINI: THE PEDAGOGY

OF

GEOGRAPHY TEACHING IN SECONDARY SCHOOLS

BY

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Curriculum changes and implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.

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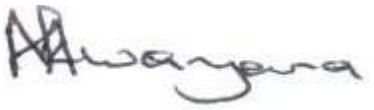

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DEDICATION

This work is dedicated to my parents, my father Absalom Nkwanyana and my late mother, Girly Fakudze, who valued education so much and supported me during those trying times in my life.

ABSTRACT

The Southern Africa region is currently undergoing curriculum reforms like the rest of the world and the major shift is from the traditional methods of teaching to competency-based education to meet the changing needs and demands of society. In Eswatini, the secondary curriculum was changed in 2006 from GCE to IGCSE and in 2009, to a localised SGCSE now called EGCSE. However, limited studies have been undertaken to determine if the new curriculum is relevant and implemented properly. The main objective of this study was to analyse the Geography curriculum changes in Eswatini and establish the nature of the changes and assess its implementation. Geography is a practical subject hence constructivist methods are useful for Geography learners to acquire skills for life-long learning. Qualitative methods were employed to collect data from three teachers from three schools through in-depth individual interviews, classroom observations and document analysis. The data was analysed using the grounded theory. Memos were written where the findings were categorised into themes, analysed and compared in order to determine emerging patterns, and to triangulate the data. The results of the study indicated that the EGCSE geography curriculum has changed in terms of its subject matter, teaching objectives and approaches. However, when it comes to the acquisition of the stipulated learner outcomes, problems were identified which indicated that the learners had not mastered the skills and were thus unable to use and apply them. Scores of learners were affected negatively as it resulted into poorer results in examinations. Factors found to limit successful implementation of the curriculum were lack of ownership and understanding of the curriculum by the teacher, teachers' attitudes, some threats of change, lack of appropriate resources to some schools, teachers' training, misconceptions about the curriculum and little time to adopt. Other factors included inadequate material resources and pressure to perform in tests and examinations. The study recommends the need for teacher training especially in practical aspects of geography and provision of adequate resources especially to the rural schools.

KEY TERMS: Curriculum, curriculum change, curriculum implementation, Pedagogy, Geography, Secondary schools, Education, Constructivism, internal and external examinations, internal and external factors and Eswatini.

ACRONYMS AND ABBREVIATIONS

CIE	Cambridge International Examination
ECESWA	Examination Council of Eswatini
EGCSE	Eswatini General Certificate of Secondary Education
GCE	General Certificate of Education
GOS	Government of Swaziland
ICT	Information and Communication Technology
IGCSE	International General Certificate of Secondary Education
LEESP	Lesotho Environmental Education Support Project
MOET	Ministry of Education and Training
NCC	National Curriculum Centre
SGCSE	Swaziland General Certificate of Secondary Education
TOT	Trainers of Teachers
TSC	Teaching Service Commission

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CHAPTER 1

1.1 ORIENTATION

This study sought to explore curriculum implementation in the Kingdom of Eswatini. The focus is on the pedagogy of geography teaching in secondary schools. In curriculum development process, curriculum implementation is one of the vital stages. The development of an effective curriculum calls for a multi-step, continuous and cyclical process. The first step in any curriculum development process involves research that reviews recent issues and trends of the discipline both within the region and the nation (McDougall & Schwartz, 2018).

The sections of this chapter include: background information that gives a brief discussion of what the study is all about; the theoretical framework that will serve as an epistemological guide to interpret information presented in the study; a statement of the problem which outlines the challenges that are faced in curriculum implementation, research objectives and research questions and a synopsis of the research methodology which outlines the research paradigm, approach, type or strategy, methods, data collection and analysis as well as chapters division.

1.2 INTRODUCTION

One of the main goals of education is to develop and prepare individuals for a future situation in life. To meet this desire, education should be able to perform prime functions and also correspond to the structure and goal of the society that are aligned to social progress and national development. Societies are changing and modernising scientifically and technologically. Education therefore should enable societies to keep abreast with the changing times in order to achieve excellence especially in the scientific and technological spheres. Education goals are implemented through the use of a curriculum which is a set of activities planned to foster teachers and students' learning. The content of a curriculum should reflect the scope of knowledge and skills that are considered to be important in the industry and society. External needs and demands of the society influence the objectives of the curriculum. These needs and demands are constantly changing and

require adjustments in the education and curriculum. There is thus a need to review the curriculum to ensure it meets the demands of the society.

In Eswatini, since 2006 the Ministry of Education and Training (MOET) started to develop a local version of the Cambridge International General Certificate of Secondary Education (IGCSE), known as Swaziland General Certificate of Secondary Education (SGCSE) which was later changed to Eswatini General Certificate of Secondary Education (EGCSE) when the King (King Mswati III) renamed the country from Swaziland to Eswatini in 2018 when the country celebrated its 50th independence. This enabled schools to teach an IGCSE style qualification in a Swaziland context. Prior to the introduction of the IGCSE, the schools in Swaziland offered a General Certificate of Education (GCE) Ordinary Level. The GCE was phased out in 2006 because it was seen to be traditional, teacher-centred and pedagogically out-dated whereas the IGCSE was internationally relevant and is based on a scientific approach that is learner-centred. Thus, it was appreciated that SGCSE should be introduced since it was seen to be more relevant to the Swati learner and that it is a localised syllabus giving mainly local examples.

At the beginning of 2006, a workshop was organised by the MOET to orient 25 Geography teachers from different schools in the country about the IGCSE syllabus. The training lasted for five days and officials from the Cambridge International Examination (CIE) conducted it. The 25 teachers were qualified to be trainers of other teachers (TOTs) and subsequent to the workshop, in February 2006, two-day regional workshops were organised and the TOTs trained the rest of the geography teachers in the country.

Geography remains a popular and respected subject in the school curriculum in Eswatini. For a long time, geography has been taught using the GCE curriculum. Efforts have been made to review the curriculum of geography and make the subject more appropriate to suit the 21st century. This change has led to the development of new ways of teaching the subject, which are more scientific and suitable to the present times. The curriculum of the “old geography” was not adapted adequately to meet the society’s changing needs. In particular, it did not address the problem of quality, relevance and accessibility fully.

Areas of concern include shortage of well-trained teachers, quality curriculum, improved attitudes, morals, and values. Also, the unaffordability of adequate learning materials is of greatest concern as it affects its availability to a significant proportion of the nation (Clements, 2022).

The changes that were effected in the curriculum of Geography in Eswatini have raised several questions about their implementation and teachers' practices. This is because Eswatini has scanty background information on how the curriculum ought to be implemented as well as how teachers should adapt to its reforms and reorganisation. It is therefore this gap in knowledge that prompted the researcher to carry out this study to establish the effectiveness of the implementation of the curriculum of geography and the pedagogy of its teaching in secondary schools in Eswatini.

1.3 BACKGROUND TO THE RESEARCH

Currently, countries in the Southern Africa region are experiencing educational reforms that may impact on assessment methods and the quality of assessment services. For example, Eswatini has recently changed its curriculum for secondary education. Apart from southern Africa, similar changes have occurred in most countries across the world and according to Elmas, Rusek, Lindell, Nieminen, Kasapoğlu, & Bílek, (2020), the introduction of the New Senior Secondary System in Finland resulted in changes in content and also brought new demands in all subjects in teaching and assessments. Due to these changes and new demands, teachers and students had to make necessary changes in the teaching and learning processes. The Education Bureau and the Examination and Assessment Authority also had to fine–tune their decisions in order to improve the curriculum and assessment processes. Based on these observations, it is also likely that the current changes in the curriculum in Eswatini are likely to impact on their teaching and assessment techniques and require changes in teaching, learning and assessment.

According to Rawling (2018), the process of changing a curriculum especially that which necessitates a move into new content and more interactive teaching and learning

methods requires significant teacher professional work. There is a need to ensure suitable professional development of teachers in order to allow the system to work effectively in relation to the curriculum, teaching, learning and assessments. For a smooth implementation of the new curriculum for skills-based subjects like geography, the teachers need to be well equipped with the necessary skills in teaching and assessment purposes. Teachers should be given opportunities to acquire necessary skills in situations where the new curriculum demand them to acquire new knowledge and skills.

Bertram (2019) states that for curriculum policy to be implemented successfully, it is vital that teachers receive in-service training and ongoing professional development and support. Grice (2018) made similar observations that curriculum cannot be developed without attaining teacher professional development first. Overall, these authors emphasised that in-service training and professional development are very important when a new curriculum is being implemented.

In most cases, the goals of an education system undergo frequent changes due to the demands of the time which tend to have a direct effect on it. Teachers, as implementers of a curriculum need appropriate professional competencies. To meet these needs, teachers have to constantly improve this knowledge, skills and explore their practices. Oke & Fernandes (2020) state that material, financial and human resources support are crucial in determining the success of the innovated curriculum. Furthermore, the author argues that material support can minimise the extra workload associated with the innovated curriculum, and in particular can provide essential support which boosts the confidence of teachers when delivering lessons in classrooms.

According to the Draft National Policy document on Education, regular improvement of the curriculum should occur in all subjects in order to meet the current demands and guarantee continuity in the overall school system in Eswatini (Ministry of Education, 2017). Also, it stresses that the ministry is committed to prioritising consultations with stakeholders such as parents, students and other players in communities when making curriculum improvements. Lastly, the ministry posits that the relevance, quality and cost effectiveness of education will be ensured through localising the school curriculum and examination for the whole school system (Ministry of Education, 2017).

In localising the curriculum, the Ministry of Education and Training (MOET) ensures that the country's education remains in line with international education. The Human Resource Development Strategy incorporated in the National Development Strategy (NDS) stipulates that education will address the development of attitudes, knowledge and skills necessary for human development that is sustainable in areas like entrepreneurship, women empowerment, and protection of environment, poverty alleviation, as well as social integration at formal and non-formal levels. Education is the only tool to develop Information and Communication Technology in schools in order to enable citizens to meet the 21st century challenges (Government of Swaziland (GOS), 2017).

1.3.1 BACKGROUND INFORMATION ABOUT ESWATINI

The Kingdom of Eswatini is a land-locked country in southern Africa that covers an area of 17,363 km^2 and is governed by a monarchy. It shares a border with South Africa on the north, west and south and Mozambique in the east. For administrative purposes, the country is divided into four regions (Figure 1.1). The administrative regions are Hhohho, Manzini, Shiselweni and Lubombo with their administrative capital towns (cities) being Mbabane, Manzini, Nhlangano and Siteki, respectively. A regional administrator heads each region. Mbabane is the administrative city of the country. The population of Eswatini was at 1,067, 773 in 2017. The country has one ethnic group called Swati. The population distribution between male and female is 47.3% versus 52.7% respectively. In 2017, over half of the population was below 20 years old, and the demand for resources was likely to outstrip the supply. The majority of people (75%) live in rural areas, and they heavily depend on natural resources and subsistence agriculture for livelihoods (GOS, 2017).

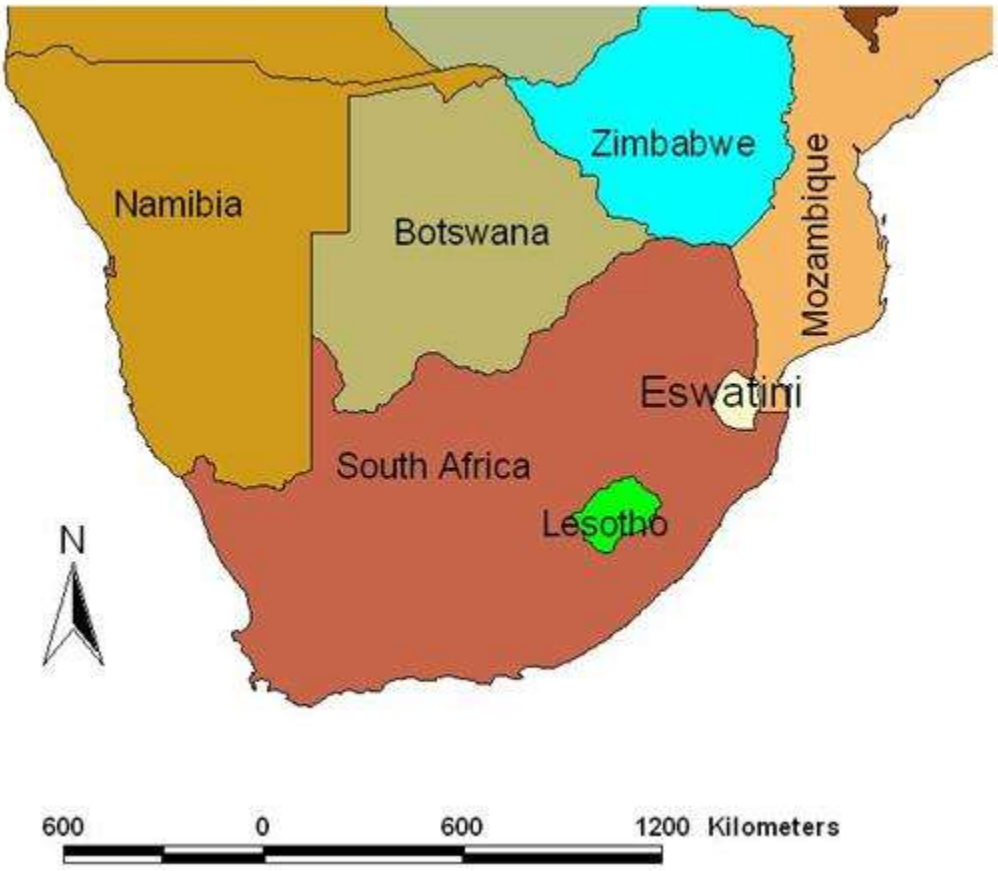

Figure1.1: Location of the Kingdom of Eswatini.

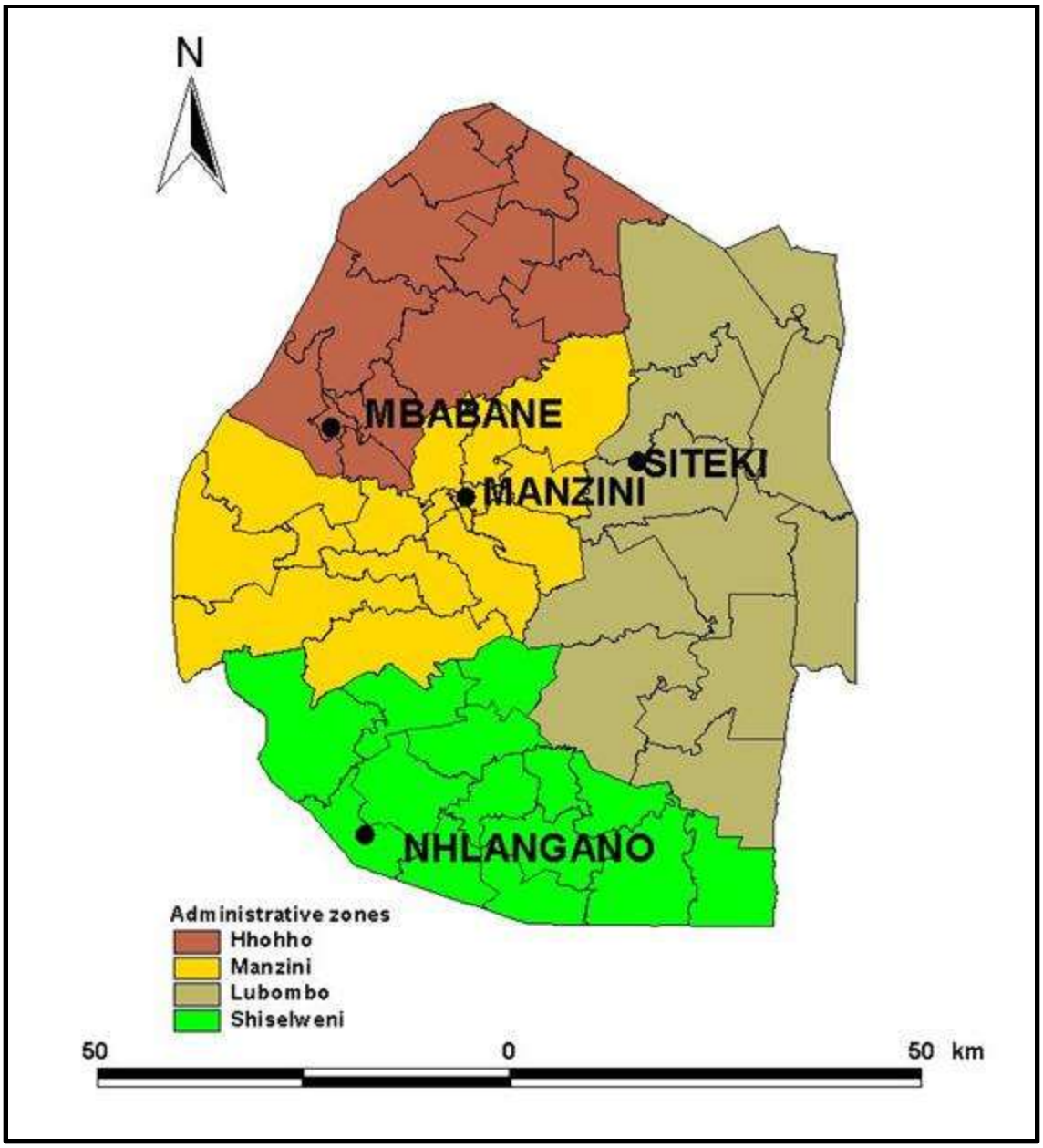

Figure 1. 4: Administrative zones of Eswatini, with Boundaries for the Respective Tinkhundla Centres

1.3.2 Education setup in Eswatini

The Ministry of Education and Training has the mandate to provide access to relevant quality education at all levels to the Swati population. It is its aim to attain equality in educational opportunities for all learners of school-going age and adults irrespective of their socio-economic background (GOS, 2017). The education system of Eswatini consists of a seven-year primary level, five-year secondary level and a three to five-year colleges and University level.

The five-year program in secondary school is divided into three years of junior secondary and two years of senior secondary. There is an external public examination (Junior Secondary Certificate) at the end of the Junior Secondary that learners have to pass in order to progress to the senior secondary level. The Examination Council of ESwatini (ECESWA) administers this examination. The country has a literacy rate that stands at 81.6%.

At the end of the senior secondary level, learners in public schools sit for a public examination, the Swaziland General Certificate of Secondary Education (SGCSE) and International General Certificate of Secondary Education (IGCSE) that is accredited by the Cambridge International Examination (CIE). A few schools offer the Advanced Studies (AS) programme in their curriculum. There were 217 junior secondary and senior secondary schools in the country in 2011, with an enrolment of 83096 learners and a total of 4358 teachers (GOS, 2017). At senior secondary level, a minimum of six subjects are offered. Geography is offered in most schools in the country. However, some learners can opt not to take it at schools where there is a choice of subjects to the learners. The Junior Certificate (JC) is awarded after the successful completion of Form 3 and the Eswatini General Certificate of Secondary Education (EGCSE) after the successful completion of Form 5. Information on the certification awarded at each level and the duration thereof is presented in Table 1 below.

Table 1 Certification awarded at each level and duration taken

LEVEL OF EDUCATION	CLASSES AND DURATION	CERTIFICATION
Primary Education	Grade 1 through Grade 7 (seven years)	Eswatini Primary Certificate
Lower Secondary Education	Form 1 through Form 3 (three years)	Junior Certificate
Upper Secondary Education	Form 4 and Form 5 (two years)	Eswatini General Certificate of Secondary Education

Source: www.examscouncil.org.sz

There are three types of schools in Eswatini namely government schools, government aided schools, and private schools. Government and government aided schools are considered to be public schools and they often follow the local EGCSE syllabus.

Many private schools offer different curricula at secondary and high school levels. These include the Independent Examinations Board (IEB), International General Certificate of Secondary Education (IGCSE), A-Levels curriculum and the National Senior Certificate of South Africa (NSC), which is commonly referred to as matriculation. These are the examinations that are considered for the admission of learners at institutions of higher learning in Eswatini and in the Southern African Development Community (SADC) region. This study focused on government schools since they offer the EGCSE curriculum. The EGCSE curriculum offers Geography as one of its subjects. That is what encouraged this researcher to focus on these types of schools in addition to the fact that most of the Swazi students attend government schools.

To the researcher's knowledge, this study is the first to be based on empirical research using qualitative methods to explore the implementation of geography curriculum in Eswatini. The importance of the study is that there have been changes in the curriculum while we do not know if the teachers were ready to implement them and whether they were implemented correctly or not. Therefore, this study is going to fill in this gap in information. It seeks to find out whether there had been any challenges associated with the implementation of the curriculum of Geography. It might provide information which could be useful for policy makers.

1.4 PROBLEM STATEMENT AND RESEARCH QUESTIONS

In 2006, the IGCSE was adopted in Swaziland, beginning in Form IV and preceded to Form V in 2007. First examinations on it were written in 2009. This led to the reorganization of subjects including geography in terms of content and pedagogic objectives. The teaching of SGCSE began in January 2009 and the initial examinations were written in 2010. Given the nature of the changes in curriculum, the teachers in Swaziland had to cope up with hasty changes in the educational system and likely experienced some challenges emanating from those rapid educational changes. Literature indicates that normally, teachers experience significant pressure when they have to adjust their curriculum and delivery methods (Rushton, 2021). At times when changes occur very fast, teachers may be pressured to making superficial changes in order to comply with the demands of curriculum planners, and no in-depth changes take place in their teaching approaches.

It is also thought that some teachers do not adapt fast enough to such changes and at times may be unaware of the goals and desired outcomes. Such problems are thought to be encountered where there is insufficient preparation for teachers to make the needed adjustments. Although in the case of the SGCSE some training was provided, there seems to be lack of information on whether the teachers were adequately prepared to meet the necessary adjustments. The main aim of this study was to examine curriculum implementation in Eswatini for two reasons. First, educational changes are often introduced without considering the views of academic decision makers including the

teaching staff and students. Secondly, it is for the purpose of examining problems and benefits of the changes. There is very little published information on curriculum changes and implementation in Eswatini, especially at the level of higher education.

The kind of challenges that geography teachers might be facing including the teaching strategies they have been implementing in order to cope need to be brought out to light. According to Vargas-Hernández & Vargas-González (2022), selecting teaching strategies to teach particular curriculum content is as important as selecting the content itself. In fact, teachers should have the opportunity to learn different teaching strategies to enhance certain aspects of learning in geography**.** This was certainly a starting point for this study. Studies about teaching the subject of Geography show that teacher research can raise important questions about taken-for-granted views and practices Lambert (2018). This is very important when trying to understand how teachers cope with curriculum changes and how their practices adapt as their career progresses. Since 2006, the geography curriculum in Eswatini was reformulated. We do not know whether the stakeholders of this new curriculum (in particular teachers) were involved effectively. We also do not know whether the little additional teacher training provided was adequate.

Literature that is available or published so far indicate that successful changes of a curriculum may be hindered by various challenges including teachers not being well equipped for the new curriculum Jadoon, Chishti, Afzaal, & Afzal (2020). Such challenges should be addressed because changes in curriculum have to be relevant and well implemented. Therefore, the problem for this study was that in Eswatini, we do not know whether the current curriculum is being implemented properly. We also do not know whether the teachers were well equipped to implement the curriculum or whether there are challenges in the implementation process. To be more specific, we do not know: how has the Swaziland geography curriculum changed? How did geography teachers adapt to recent instances of curricular re-organisation in Eswatini? What are the challenges following the implementation of such curriculum changes in the classroom? Is the new curriculum implemented correctly? Therefore, this study was intended to fill in this gap in information regarding the implementation of the curriculum. What is involved in successful pedagogies in Geography learning areas and academic performance in high schools?

How are these affected by changing contexts? What are teachers' responses to the challenges?

1.5 Main research question

The study's main research question was: What are the changes in Geography as it is being taught in Eswatini and how have the subject's teachers adapted to the implementation of these changes? Therefore, the main question is how teachers teach a changed curriculum?

1.5.1 Sub -research questions are as follows:

1. What are the changes that have occurred in the geography curriculum?
2. What kind of support was given to the teachers to equip them for the new curriculum?
3. How have the changes been implemented?
4. What challenges are encountered in implementing the new curriculum?
5. Is there a difference in performance of learners in the different curricula?

1.5.2 Aims and objectives

The study aimed at investigating curriculum implementation in Eswatini and how teachers teach a changed curriculum? It also sought to find out how Geography teachers adapted to the changes and how these changes were implemented. The objectives of the study were:

1. To identify the changes that have occurred in the Geography curriculum.
2. To establish the extent to which Geography teachers were equipped for the new curriculum.
3. To evaluate the success of implementation.
4. To evaluate the challenges in implementing the new curriculum.
5. To ascertain the difference in performance of students in the different curricula.

1.6 RESEARCH METHODOLOGY

This study followed a qualitative approach. Chapter 4 is dedicated to detailing and substantiating the methods chosen for this approach.

1.7 LIMITATIONS AND DELIMITATIONS OF THE STUDY

This study was done in one of the administrative regions of the country. In as much as Manzini is the most populous administrative region, it is also relatively developed compared to the other regions and some schools that are classified as rural may be better than some in other regions in terms of facilities and communication.

The study included three geography teachers from three secondary schools from the Manzini region. These were purposively selected to partake in the study. The researcher saw it necessary to state that the study was only focusing on schools in the Manzini Region. Only the three selected schools took part in the study as it was difficult to involve all government schools in the Manzini region. Figure 1.3 below presents the map of the Kingdom of Eswatini.

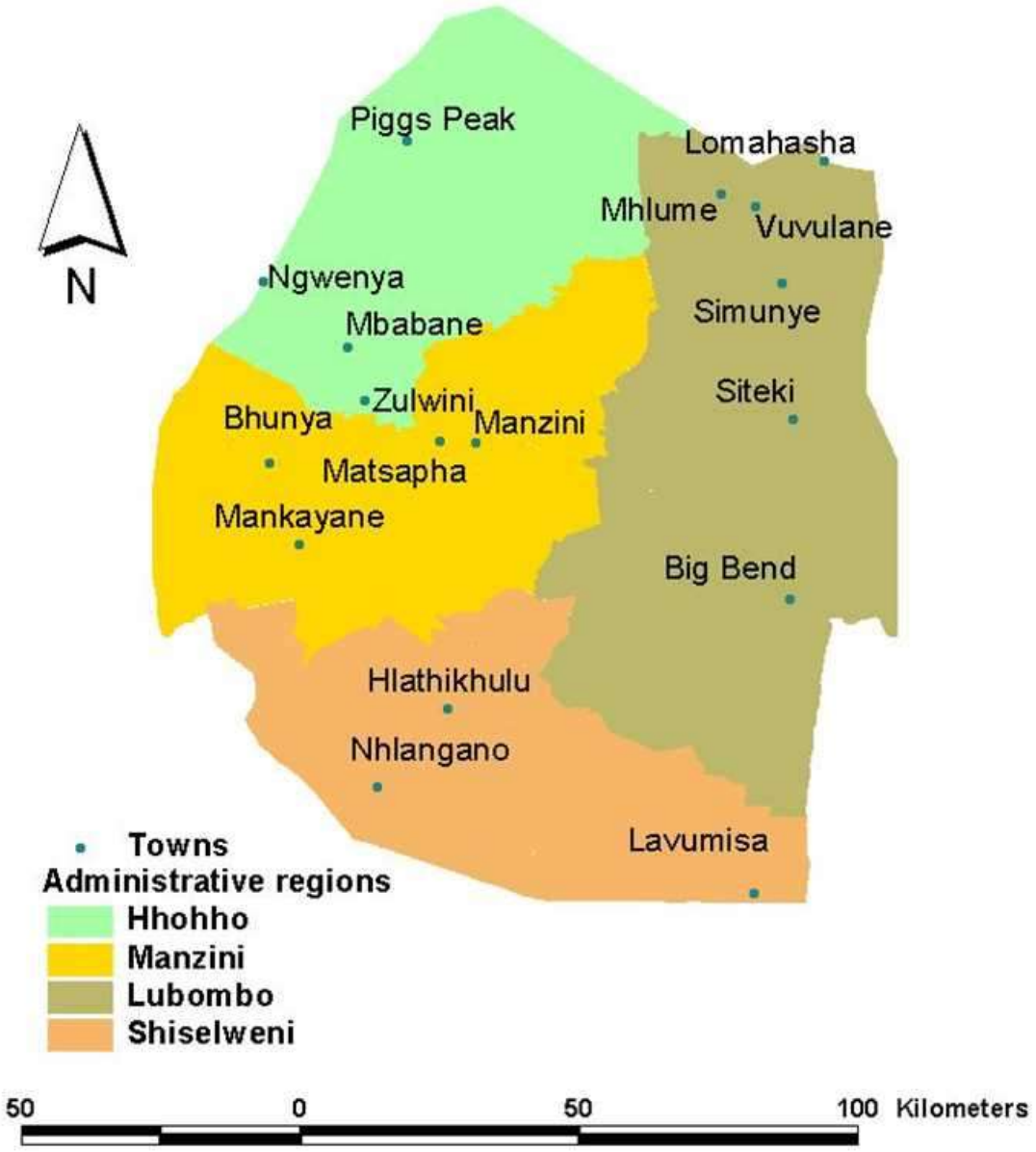

Figure 1.3. Administrative regions of Eswatini showing regional towns and cities

1.8 KEY CONCEPTS

In the section below, terms and concepts that are necessary components of the study are defined in order to state their meanings as they relate to the study.

1.8.1 Education

It is the process of imparting systematic instruction, especially at a school or university through which the society's accumulated values, knowledge and skills are deliberately conveyed from one generation to the next (Linyuan 2012). Education in this study focussed on methods that are used in the teaching and learning process in secondary schools.

1.8.2 Curriculum

Curriculum may be defined as a systematic arrangement of selected experiences planned under the guidance of foster teachers' teaching and students' learning including formal activities for attaining goals of education. Tan, (2012). This study defines curriculum as the planned learning experiences under the guidance of teachers in schools.

1.8.3 Curriculum change

Oke, & Fernandes, (2020) define curriculum change as a whole set of concepts, including innovation, development, and adoption in a curriculum. This study defines curriculum change as changes made in terms of teaching lessons and academic content taught in a school or in a specific course or programme.

1.8.4 Curriculum development

According to Tan, (2012) curriculum development means revising or making the curriculum different in some way giving it a new position or direction. That is, it is a process of designing or re-shaping a curriculum to be used in schools to attain objectives of a system of education. In this study curriculum development refers to the reforms that are made in shaping the curriculum giving it a new meaning with teachers using innovative approaches in their practices.

1.8.5 Curriculum implementation

Linyuan, (2012) defines curriculum implementation as putting into use the new or innovated curriculum. This means putting the curriculum into practice once it is delivered to schools. In this study curriculum implementation is when teachers put into practice the planned curriculum during lesson delivery.

1.8.6 Pedagogy

According to Rivera-Vargas, Anderson, & Cano, (2021) pedagogy is the study of how knowledge and skills are imparted in an educational context, and it considers the interactions that take place during learning. This study defines pedagogy as knowledge about the integration of subject expertise and skilled teaching of a particular subject, being able to combine different types of content.

1.9 CHAPTER DIVISION

The study is composed of 6 chapters that are briefly described below:

Chapter 1

This chapter gives the study's overview. It comprises of the introduction and background of the study, review of literature and related theories, problem statement, aims and objectives, significance and the contribution of the study, research design and methods.

Chapter 2

The chapter discusses conceptual framework and theories that influence teaching and learning methods and policies.

Chapter 3

This chapter provides an overview of teaching and learning policies in Eswatini secondary schools. Literature review among other things focusses on teaching and learning and educational policies that influence it.

Chapter 4

This chapter gives a detailed account of research methodology and procedures. These will include research paradigm, approach, design and methods. The chapter also discusses sampling, data analysis and interpretation, trustworthiness and ethical considerations.

Chapter 5

This chapter presents the research findings, data analysis and interpretations. This gives detailed discussions on the findings including comparing findings with literature.

Chapter 6

This chapter gives a summary, conclusions and recommendations. It also highlights the study's limitations and suggest areas for further research.

1.10 CHAPTER SUMMARY

This chapter described the background and context of the study, problem statement, the study's research questions, aims and objectives as well as literature review. It also gave an overview of the description of research methods that were used to collect and analyse data for the study. It ended by describing how the chapters are divided. The next chapter presents the conceptual framework and theories that influence teaching and learning methods and policies.

CHAPTER 2

THEORETICAL AND CONCEPTUAL FRAMEWORKS THAT INFLUENCE CURRICULUM IMPLEMENTATION

2.1 INTRODUCTION

The preceding chapter provided the study's background, the theoretical framework, a statement of the problem, a synopsis of the research methodology which outlines the research paradigm, approach, type or strategy, methods, collection and analysis of the data as well as how the chapters are divided. This chapter focuses on the theoretical frameworks that influence the pedagogy of geography curriculum and its implementation in secondary schools. These paradigms are ways in which researchers look at the world and at teaching and learning. Moreover, attention is paid to the effect that these theories have on curriculum design and implementation. Theoretical frameworks influence curriculum implementation. The following section defines relevant theoretical and conceptual frameworks and discusses in detail their characteristics, descriptions, interpretations and guiding principles as well as experiences and theoretical concepts that guide curriculum implementation.

2.2 THE INFLUENCE OF THEORETICAL FRAMEWORKS FOR THIS STUDY

Wahyuni (2012: 69) asserts that a theoretical framework is a set of essential beliefs on how the world is perceived. Researchers, particularly educational researchers use it to benchmark their research work. According to Wahyuni (2012: 69) it serves as a frame-work that guides the behaviour of the researcher. Carlile, Jordan and Stack, (2004:4) consider educational theory as the distilled experiences of others. Webb, (1996:23) attests to this when he says Theory is important in guiding education practices. Teaching and learning theoretical paradigms influence countries' education systems. The government of Eswatini decision to design the new curriculum was influenced by theoretical framework. This study was based on the constructivist theory because

Geography is a subject that requires active and practical participation by learners since knowledge is socially constructed. Critiques lament the overreliance on traditional approaches to teaching it and call for active learner participation because knowledge is socially constructed.

The schooling system especially in developing countries has been dominated by the traditional model for a long time. However, due to criticisms raised against it, constructivism has been introduced in several countries globally. The next section describes the theory and practice of active learning in details as it relates to this study, which focuses on the implementation of curriculum in Eswatini, the pedagogy of Geography teaching in Secondary schools. The crucial points to be covered are definitions, strategies, and approaches of curriculum implementation, challenges in implementing Geography in the classroom and the theoretical concepts and experiences that guide the implementation of curriculum. Theoretical frameworks are necessary to guide curriculum change and implementation in teaching and learning. Therefore, this study considered it essential to highlight theoretical frameworks that reflect philosophical beliefs behind the practice of active learning approaches. Constructivist theories that are relevant to the study particularly cognitive and social constructivism are the motivation of the following discussion.

2.3 UNDERSTANDING CONSTRUCTIVISM AS A THEORETICAL PERSPECTIVE FOR THIS STUDY

2.3.1The Nature of the Constructivist School of Thought

According to Brown, (2007:9) constructivism explains the learning process, how learners form their own knowledge and experiences, how teachers should facilitate students' learning, and how teachers should assess learners' progress. McLeod (2019) states that constructivists believe in learners' personal construction of meaning and that interaction of prior knowledge and new events influence the meaning. Pritchard and Woollard, (2010: 8) argue that the key idea of the constructivist learning theory is that learners use their experiences to understand the world in which they live. Experiences, past and new knowledge results in the evolving of learners' perspectives. Similarly, Elliott, Kratochwill,

Littlefield & Travers (2000:256) state that when a constructivist approach is adopted in learning, students actively construct their own knowledge and their experiences determine reality.

Constructivism is a philosophy that believes that knowledge is created through learners' active engagement (Brooks and Brooks 2006:59). It is based on the idea that we understand the world we live in through our experiences. Since learning involves searching for meaning, constructivism believes that learning should begin with issues that learners are actively involved in and try to construct meaning.

According to constructivists, instead of being passively absorbed, knowledge is constructed. The central idea of constructivism is that students use prior learning to build new knowledge. Prior experiences influence knowledge a student creates from new learning (McLeod, 2019). Mohammed & Kinyó, (2020) believe that constructivism is all about the student's own construction of meaning through experience and that the interaction of new events and prior knowledge influences meaning.

The second conception in constructivism is that the learning process is active not passive. Passive teaching assumes the student as an empty vessel that needs to be filled with information. Constructivism believes that students should be actively engaged with the world through carrying out experiments and embarking on problem solving (McLeod, 2019). Though knowledge can be received passively, understanding cannot, because it should come from connections between the processes involved in learning, previous knowledge and new knowledge.

Moreover, knowledge is not an abstract concept, it is socially constructed and learning is done by people through interacting with each other (Dewey, 1938). Vygotsky (1978) believes that society plays a major responsibility in the course of making meaning. For Vygotsky, the environment where children grow influence how they think and what they think about.

Teaching and learning is sharing knowledge that has been constructed socially. A constructivist approach is based on the principle that learning is a result of mental construction. This means that students learn through incorporating new information into

existing knowledge they already possess (Roberto & Madriga, 2018). According to constructivism, learning is affected by students' beliefs and attitudes and the context where it takes place. Constructivism learning theory is based on psychology that explains how people learn and gain knowledge. Therefore, it directly applies to education. This theory advocates that based on their experiences, humans are able to construct knowledge and meaning.

Constructivism has implications in education on that it concerns how teachers teach and learners learn. If educational reforms are to be successful, the focus should be on learners. Up to now, the focus on learner-centered approach is one of the most crucial contributions of constructivism. Therefore, this study discusses constructivist learning theory as it applies to Geography education. This theory has direct implications to education as it encourages the use of learner-centered strategies such as problem solving which are relevant in the teaching and learning of Geography. If the teacher facilitates and learners take a centre stage, they tend to pay attention in class. Consequently, when learners pay attention during the learning process, they tend to recall what they have learnt. As a result, they become more interested in the topic being taught in class as they tend to take responsibility for their learning and be able to construct their own knowledge.

2.3.2 Constructivism principles, what they are and how they are relevant to this study.

Hein (2007:2), observed the following essential constructivist guiding principles that educators need to bear in mind:

- Learning takes time and it consists of constructing systems of meanings that make individuals manage to give better meaning of similar patterns.

- Learning needs learners to be involved and engaged with the world so that they use their sensory inputs to construct meaning out of them.
- Students learn to learn as they learn. Each meaning students construct enables them to give meanings to other related patterns.

- Dewey called for the use of activities that engage both the minds and hands during learning.
- Language is involved in learning and the kind of language used influences learning. People dialogue with each other and also talk to themselves as they learn.
- As a social activity, learning is connected to other humans such as family, peers and teachers including people within the environment.
- Learning is context-based since theories and facts are not learnt in isolation of the rest of people's lives. Learning occurs in relation to what people already know including their beliefs, fears and prejudices. Learning is an active social activity which cannot be divorced from people's lives.
- People need knowledge in order to learn. New knowledge cannot be assimilated in the absence of prior knowledge. Teaching should build on learners' prior knowledge.
- Learning is not passive. The learner should be involved and engage with the world and learn from those experiences.
- Motivation is an important element in learning because it stimulates learner participation and thereby resulting in their understanding of what is taught.

These principles guided the researcher to critically analyse how students learn and construct meaning at their own pace using different learning strategies.

Muirhead (2006) asserts that the constructivism educational theory has 4 assumptions:

1. Learners' prior knowledge contributes to learning and interpretation of new information.

2. The mental framework of learners is constructed by the accommodation and assimilation processes.

3. Learning ought not to involve mechanically giving information but to be an organic process of invention where students hypothesise and create knowledge using their abilities.

4. Scaffolding and reflection creates meaningful learning.

Therefore, in principle, according to constructivists, individuals actively construct knowledge and learning is both a social and individual process which enables people to understand their world. Basically, the constructivism theory is grounded on how people learn. Bereiter (1994) contends that people create knowledge and understanding of the world through experiences and reflections. McLeod (2019) observes that people reconcile the new knowledge they encounter with their previous experiences. In order to succeed, people must ask questions as well as assess and explore what they already know. In constructivism, experiments and problem solving are some of methods that are used to facilitate active learning. Oliver, (2000) says that teachers should understand that learners create knowledge through active participation during the process of teaching and learning.

Constructivism allows learners to explore freely within a given outline. The teacher encourages learners to discover information for themselves and to solve realistic problems in order to construct knowledge. Aspects of constructivism are found in experiential learning, self-directed learning, transformation learning, and learning by interacting with the social and work environment and reflective practice.

2.3.3 The teacher's role

The principal role of the teacher in constructivism is to create an environment that promotes active participation in learning. The teacher should not be the instructor but the facilitator of learning. Constructivists believe that scaffolding is essential for effective learning. In class modeling, providing cues and hints, and adapting material and activities can be used as scaffolds (Copple & Bredekamp, 2009).

Constructivist theory suggests that student learning can be promoted through exposing learners to material being studied because learners derive the meaning better when they experience the world directly. Teachers should provide the learning environment which provides an opportunity for active learner involvement in their learning (Tam, 2000).

Tam (2000) lists 4 essential conditions of constructivist learning environments that teachers should consider:

1) Students and teachers share knowledge.

2) Teachers share authority with students.

3) The teacher is a facilitator of learning.

4) Groups in class are composed of diverse learners.

On the other hand, Honebein (1996) summarises constructivist learning environment as:

1) To give knowledge construction experiences when learners decide how they are going to learn.

2) To give information in different ways through evaluating alternative solutions.

3) To deliver learning in real settings through making use of authentic activities.

4) To use a learner-centred approach to promote the student's voice and ownership in learning.

5) To use collaborative social learning strategies.

6) To promote utilisation of diverse ways of representation such as text and video.

In a constructivism, much attention is paid on students. When using this theory, the role of a teacher in class changes from being a total authoritarian ("expert") where he/she gives knowledge to passive learners who wait to be filled like empty vessels. In fact, students are encouraged to be involved during learning. The teacher functions as a facilitator who instructs and mediates the learning process. Moreover, both the teacher and learners think of knowledge as dynamic and changing. The table below shows differences between a constructivist classroom and one that is traditional.

Table 2.1: Traditional and constructivist classrooms

Traditional Classroom	Constructivist Classroom
Learning is repetitive and the curriculum adhered to is fixed.	Learning is interactive and based on students' prior knowledge, interests and questions.
Teacher-centered.	Learner-centered.
Learning is passive. Students are passive recipients of information disseminated to them by teachers.	Learning is active. Teachers interact with students and help them to create their own knowledge.
The role is directive and based on authority.	The role of the teacher is based on negotiation.
Learners compete as they work alone.	Learners work collaboratively in groups.

Source: McLeod (2019)

Constructivist descriptors of teaching are listed by Brooks & Brooks (1993:103 – 112):

1. Promote learner autonomy and initiative.

2. Make use of primary sources and raw data together with physical manipulative materials.

3. Use terminologies like create, classify etc. when creating tasks.

4. Let contributions of learners drive the lesson. Alter content and shift instructional strategies.

5. Check learners' understanding of information before you express your own understanding.

6. Motivate learners to interact with one another and the teacher.

7. Encourage learners to ask the teacher and each other thoughtful open ended questions.

8. Ensure that students' initial responses are elaborated.

9. Allow wait time after asking learners questions.

10. Give learners time to create metaphors and build relationships.

11. Use learning cycle models frequently to nurture natural curiosity of students.

According to the constructivism theory, learning is learner specific. This theory assumes that learners use information that they perceive to construct their own meaning from it. Constructivism has enormous implications on how teachers learn to teach and how they teach. Up to now, the learner-centred approach is one of constructivism's most viable contributions. Though its principles contradict traditional practices but, they appeal to modern view of learning and knowledge. Teachers need to apply constructivist principles in class by becoming facilitators of learning and allowing learners to be actively involved in the construction of their own knowledge during learning in class.

2.3.4 TYPES OF CONSTRUCTIVISM

Piaget's Constructivist theory has stretching effect on learning theories and teaching methods, and is a fundamental theme of several reformist movements in education. There is research that support constructivism teaching methods while on the other side there is also research that opposes these methods. There are two main types of constructivism cognitive constructivism which are based on Jean Piaget's learning theory while the social constructivism is based on the work of Lev Vygotsky's theory. These are related to this study and are explained below. These two place the learner at the centre of learning. They agree on the inquiry of teaching techniques and that learners construct new knowledge based on prior learning (Powell, Kalina & Cody (2009).

2.3.4.1 Cognitive constructivism

According to McLeod (2019), cognitive constructivism asserts that knowledge is created by students based on their existing cognitive structures. On the other hand, Bereiter (1994) contends that people construct their understanding of the world through reflection on their experiences. Mainly, cognitivist approaches have a belief that knowledge consists

of symbolic mental depictions like images and propositions as well as a mechanism operating those representations. Therefore, learning is relative to stages of cognitive development. Cognitivism refer to ways of teaching that are intend to help students to assimilate new information into existing knowledge and enable them to make suitable amendments to their existing intellectual structure to accommodate that information.

The constructivist learning theory claims that people use their experiences to produce knowledge and form meaning. Two crucial concepts within constructivism learning theory are assimilation and accommodation. Assimilating enables individuals to integrate new experiences into existing ones. This makes an individual to develop new outlooks, rethink misunderstandings and assess what is essential ultimately changing their perceptions. Accommodation on the other hand involves reframing new experiences into already present mental capacity (McLeod 2019).

Individually, learners interpret information and experiences light of their cultural background, stage of cognitive development, personal history etc. They use these factors to organise their experiences and to choose and convert new information. Therefore, knowledge is created by students. It is not passively absorbed. Perry (1999, 54) argues that cognitive learning theory recognises intrinsic motivation unlike behaviourist learning theory which sees it as extrinsic based on reward or punishment. In cognitivism, successful learning requires a greater deal of involvement of learners. If motivation does not come from within the student, then external motivation is not likely to be successful.

2.3.4.1.1 Assumptions of cognitive constructivism

The aim of cognitivism is to help students assimilate new information into existing one and enable them to make adjustments to their existing intellectual structures to accommodate that information. While cognitivists also use skill and drill exercises in the memorisation of formulae and facts, they make more emphasis on strategies that assist learners to actively assimilate and accommodate information. For example, asking learners to explain new information can help them to assimilate it through re-pressing new ideas into their existing vocabulary (Perry 1999). Giving learners questions to organize their own reading enables them to relate it to previous material and

accommodate the new material by providing a clear organisational structure. According to the cognitivist framework, learning is largely self-motivated. The use of study questions and ungraded tests enable learners to check their understanding of the content. Learners can also use learning journals to monitor their progress.

2.3.4.2 Social constructivism

According to Gergen & Gergen, (2012) in this approach, meanings are socially constructed through coordination of people in their various and dynamic encounters. Social constructivists believe that learning is not abstract, it is a social activity done by people as a group through interacting with each other (Dewey, 1938). For instance, Vygotsky (1978) believes that communities where children grow, influence their thinking and the way they make meaning out of learning activities since teaching is sharing knowledge found in communities. Vygotsky (1978) contends that social interactions result in cognitive development of children. Kim (2006:27), asserts that social constructivism sees the construction of knowledge as based on understanding the importance of context and what occurs in society. Au (2005:297) argues that learning improves if teachers make use of home languages, improve learner interaction and build relationships with communities. McLeod (2019) attests that Vygotsky's social constructivism learning is a collaborative process where individuals interact with their culture and society to develop knowledge. Vygotsky (1978: 57) suggests that children's cultural development appears first at social level then later at individual level

Au (2005:28) asserts that literacy learning at school for learners from different communities can improve if teacher recognise home languages and see bi-literacy as an achievable and pleasant outcome. Park & Schallert (2019) claim that schools are socio-cultural institutions where learning takes place through utilisation of cultural tools like writing and reading. This theory believes that practice and theory isolation are influenced by dominant cultures. As such, teachers must use types of evaluation that reflect learners' literacy achievement. In fact, learning is viewed as a social process and knowledge as a human product by constructivists. Children can advance their thinking capacities through interacting with adults.

Vygotsky's theory implies that during teaching and learning, interacting and exchanging ideas enable learners to reconstruct new ideas. This theory acknowledges that students can adjust their presumptions through social interaction. Through interacting with others, students identify drawbacks of their presumptions and adjust them while taking into consideration shared meaning. Au (2005:300) argues that research based on social constructivist learning centers around family members, peers and teachers' role in facilitating learning. According to Vygotsky, everyday scientific concepts are distinguished. In their daily life, children construct everyday concepts spontaneously, while scientific concepts are learnt through formal instruction and schooling.

2.3.4.2.1 Assumptions of social constructivism

Derry, (1999) states that emphasis of social constructs is the importance of context and culture in understanding the society and then creating knowledge based on such understanding. This viewpoint closely concurs with Brunner's developmental theory and Bandura's social cognitive theory (Kukla, 2000). Social constructivism according to Kim, (2001) focuses on specific assumptions about knowledge and learning. It is essential for teachers to understand the principles and assumptions of this theory so that they can be able to implement them in class.

According to social constructivists, human activity creates reality. The world's properties are invented by community members (Kukla, 2000). For the social constructivist, before social invention, reality does not exist. Knowledge is a culturally and socially constructed human product (Ernest, 1999). People interact with their environment and with each other to create meaning. McMahon, (1997) contends that social constructivists view learning as a social process meaningfully takes place as individuals engage in social activities.

To Social constructivists, the context where learning takes place and the context brought by students are very crucial. According to Gredler, (1997) four general perspectives inform how learning should occur in the social constructivist framework. These are cognitive tools perspective, idea – based social constructivism, pragmatic approach and situated cognitive perspectives. Cognitive tools perspective concentrates on the learning of cognitive strategies and skills. Learners do project-based and hands-on activities

(Gredler, 1997). Kim, (2001) asserts that idea-based social constructivism sets priorities of education on essential concepts in many fields, for example part - whole relations in Math, point of view in literature and photosynthesis in science. The vision of the learner is expanded by these big ideas since they are important foundations for the creation of social meaning and learners' thinking (Gredler, 1997).

Social constructivists with the pragmatic approach perspective affirm that social constructivism implementation in schools should be evolving as needs arise (Gredler, 1997). It holds the view that meaning and understanding can be addressed from the views of the whole class or views of individual learners (Gredler, 1997). Situated cognitive perspective deals with the relationship of the environment and people. Humans and individuals live in a given environment. Individual characteristics are influenced by the environment. As the mind works, individuals will be engaged with the environment. If the environment changes, individuals and relationships between individuals and groups also change. In light of this, Bredo (1994) says that if learning is to be effective, it should not be isolated from its environment. In this study, knowledge and what happens in class in terms of pedagogical content in the implementation of geography curriculum would be investigated. Kim (2006:31) states the following social constructivism assumptions:

- They believe that reality is not discovered but it is created by human activity.
- Knowledge is a socially constructed human product. As people interact with each other and their environment meaning is created.
- Learning is an active social process. Significant learning takes place when learners are engaged in social activities.

Knowledge is developed when people interact with their environment because it exists within people's cultures. Knowledge construction is also influenced by the inter-subjectivity formed by historical and cultural factors of communities. It is not possible to get social meaning of key symbol systems and learn how to use them without social engagement with others who have more knowledge. When young children interact with adults, they develop their thinking abilities.

The study of geography analyses and describes location of places. Geography content and methods are diverse as it responds to persistent changes of the environment. It is both humanity and science because it goes beyond and describes earth and its dynamic elements. It also interconnects with other disciplines. Its study includes the discovery process which enables students to get knowledge and develop skills of inquiry and critical thinking. Geography helps learners to manage challenges and demands of the present world that has evolved into a global village. Therefore, it is of interest to see these assumptions unfolding in the class.

2.3.5 THEORIES OF CONSTRUCTIVISM

These theories are the foundation of practicing Geography education. Aydin, (2011:277) concurs with this concept when he says that constructivism has a place in Geography and that is to promote learner involvement in conducting research in order to discover information rather than to be passive receivers of information. Constructivist theories relevant to the study are experiential learning theory by Kolb. Vygotsky's social learning theory, Race's ripples model, Papert's theory of constructivism, Piaget's cognitive adaptation theory, Bruner's discovery learning theory and Novak's theory of human mind. Each of these theories is discussed to show their relevance to the study.

Constructivists encourage students' thinking; allow learners to be autonomous, and teachers act as facilitators. Teachers assist learners to discover meaning and understanding, instead of accumulating information. Constructivists developed learner-centred approaches which allow the learner to play a central role and enjoy independent learning. The researcher based this study on Kolb's experiential learning as their theoretical framework.

2.3.5.1 Kolb's Experiential Learning Theory

Kolb (1984:38) sees experiential learning as relating to outcomes from real life experiences. According to Kolb, it is through experience that learning and development takes place, hence the name of his theory. Kolb (1984:41) defines learning as obtaining knowledge through experience. In other words, knowledge is generated by a grasping experience and transforming it.

Kolb (1984) describes learning as:

- An ongoing process of adapting to the world based on experience.
- Resulting from solving conflicts between opposed methods of adaptation to the world.
- Including interaction between humans and their environment.
- An outcome of interaction between personal and social knowledge.

The experiential learning theory gives a way of rearranging the curriculum and shows how a session may improve students' learning. It contends that learning involves four cyclical stages namely experience, generalize, test and reflect. The theory's significant features are the different stages that are associated with different styles of learning and making learners aware of other approaches to learning and enabling them to be flexible in different learning situations.

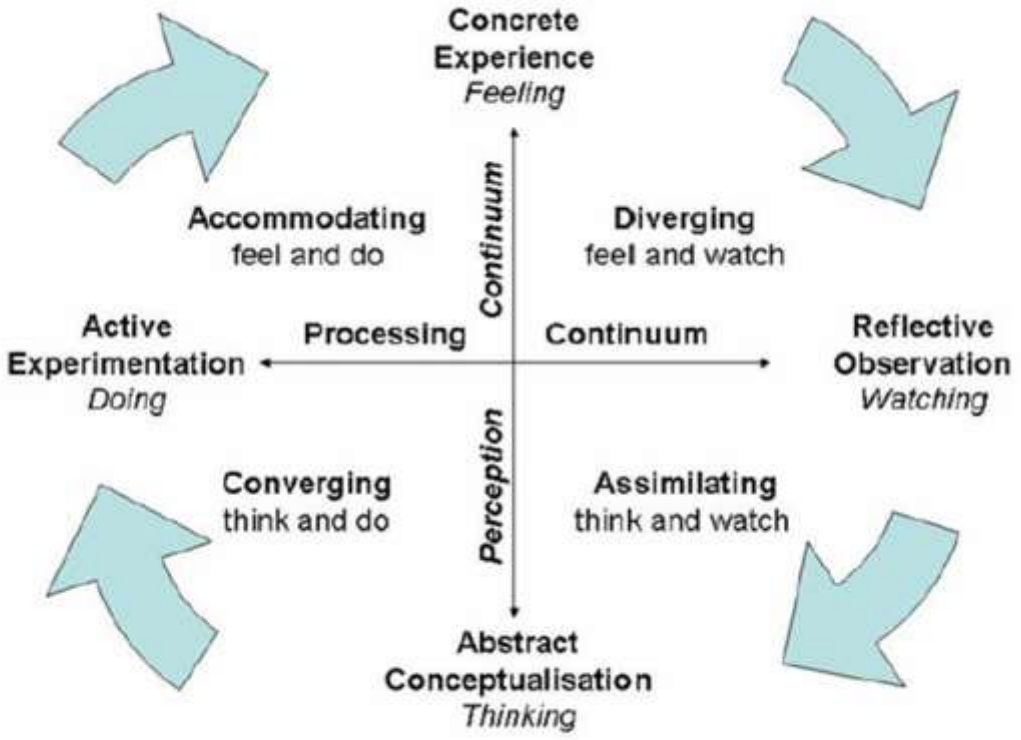

Figure 2.1: Kolb's learning theory (1984)

The following dimensions are reflected in figure 2.1:

- Reflective observation, looking for experience's meaning.
- Abstract conceptualization. Analysing the experience logically.
- Active experimentation. Moving to action from experience.
- Processing continuum. One's approach to learning.
- Perception Continuum. One's emotional response to learning.

McLeod, (2017) says teachers can use Kolb's learning theory to develop learning opportunities and to critically evaluate learning provision available to students. Teachers should design and carry out activities in a way that gives all learners a chance to engage in a manner that best suits them. Moreover, learners can be assisted to learn through consolidating their less desired learning styles by applying experiential learning cycle.

Preferably, material and activities should be established in approaches that illustrate on abilities from each stage of the cycle and take learners through sequentially.

2.3.5.2 Learning styles descriptions

According to Kolb, different learning styles are preferred by different people. This is influenced by factors such as an individual's cognitive structure, educational experiences and social environment. When teachers know learners' preferred learning styles, then they would deliver learning according to those styles. Kolb's (1984) learning styles are diverging, assimilating, converging and accommodating.

- Assimilating (abstract, reflective). This involves a logical approach which is concise. Concepts and ideas are essential than people. People who prefer this style need clear explanations than practical situations. They understand broad information and are able to organise it clearly and logically. They are more interested in abstract ideas and are less focused on people. They are attracted to logically sound theories than approaches based on practical significance. This style of learning is essential in science and information careers. People who possess this style prefer to explore analytical models, readings and think things through issues in formal learning situations.

- Converging (abstract, active). People with this style are capable of solving problems and making use of their learning to come up with solutions to issues. They are less worried with interpersonal aspects and people and they want technical tasks. They excel at using theories and ideas practically. They are capable of solving problems and making decisions through solutions to problems and questions. These people are attracted to problems and technical tasks than interpersonal and social matters. This learning style enhances technological abilities. People who have this style like to work with practical applications and experiment with new ideas.
- Diverging. People with this style look at things from different points of view. They like watching than doing. They use imagination to solve problems after gathering information. They are good at viewing actual situations from different viewpoints.

They perform better in situations that need brainstorming to generate ideas. People with this learning style also like to collect information and they have interest in culture. They are imaginative, emotional and interested in arts and people. They like working in groups, listening open-mindedly and getting feedback.

- Accommodating (concrete, active). This style is hands – on. It relies on intuition than on logic. People who possess this style prefer to use an experiential approach. They get attracted to new experiences and challenges and to carry out plans. They generally act on instinct than on logical analysis. People with this style which is prevalent within the general population, do not carry out their own analysis rather they rely on other people for information.

Therefore, learning by doing, watching, thinking as well as through feeling are Geography's main approaches and strategies to teaching and learning. This researcher support and work in line with Kolb's theory and she is for the idea that teachers should use learner-centered methods in order to inspire learners to be responsible for their own learning. This research is therefore based on Kolb's theory.

2.3.5.3 Vygotsky's Social Learning Theory

This theory by Lev Vygotsky was not known to the West until its publication in 1962. It focuses on the effect that social engagement has on learning. It states that parents, peers, and teachers who relate with students play a significant part in the learning of those students. Vygotsky (1978:90) contends that an individual learner can perform up to a certain limit when given an individual task. Outside that limit, the learners' achievement depends on assistance from others (Crawford, 1996). Vygotsky, asserts that humans use tools such as speech and writing that develop from a culture to mediate their environments. Therefore, students use these tools to communicate their needs. Vygotsky insists that internalisation of these tools leads to higher thinking.

Vygotsky's theory implies that the student's ability to build ideas is improved by engagement with others in the teaching and learning process. His theory states that students can diverge their presumptions through social negotiation of ideas. This means that exchanging of ideas and weighing alternative conceptions from numerous

perceptions so that learners can identify drawbacks of their presumptions and modify them.

According to Vygotsky, social interaction results in effective teaching and learning. Geography is interactive. It involves such aspects as demographic, political and economic aspects that are favourable for social engagement. Thus, it shares the same sentiments with the researcher's understanding as they believe that students construct knowledge from engagement with their teachers, peers and families.

There is effective transfer of knowledge when students learn from each other and teachers playing the role of facilitators rather than dominating teaching and learning activities. Interaction of students builds confidence in them and results in critical thinking, creativity, team work for example in geography education. The theory encourages learner – centered activities where teachers facilitate and learners construct knowledge. Therefore, since the researcher is advocating for methods of teaching and learning that make teachers facilitators and students responsible for their own learning and this theory supports the teaching of Geography which is an interactive discipline by nature.

Vygotsky (1978:87) pays attention to the effect that social interaction has on learning. He holds the view that teachers, parents, peers and other members of the society who relate with the student play a major part in the student's learning. Furthermore, Vygotsky (1978:90) contends that there are limitations if an individual performs a given task alone because an individual's success depends on other people's support. This limit is referred to by Vygotsky as a zone of proximal development. According to this theory, the student's creativity ability is improved by interaction and interchange of ideas with others. Vygotsky's theory notes that students can adjust their assumptions through social interaction.

This theory believes that effective learning and teaching activities are based on social interaction. As an interactive discipline, Geography has domains like demographic aspects, economic aspects political aspects, physical and biological aspects that are favourable for social engagement. Therefore, it concurs with the researcher's observation since she personally believe that teachers are facilitators of learning and students

construct knowledge through interacting with teachers, their peers, families and their environment.

When students share ideas, teachers have no chance to exercise power to transfer knowledge or to dominate teaching and learning, rather they become facilitators. Teachers are only facilitators while students are knowledge constructors. Hence, the study seek to work on teaching and learning methods that make students responsible for their learning and teachers facilitators of learning. When learning Geography, students interact with colleagues, the immediate environment and communities to create knowledge. Vygotsky's theory therefore is relevant to geography as a subject.

2.3.5.4 Race's Ripples Model of Learning

Phil Race in 1993 offered a new and radical learning model based on the principle of experiential learning, which promoted learning. He concurs with Kolb on the need to give feedback on the success of learning and reflection on learning in order to develop a sense of ownership. He disagrees with Kolb on identifying new factors in the learning process.

Race (1993) then identified four basic elements that constitute successful learning. They do not progress in a cycle but they interact with one another like ripples in a pond:

Need – motivation to learn.

Doing – learning through experimenting and practicing.

Feedback – intrinsic feedback from the learner's experiences. Extrinsic feedback from other learner's observations.

Making sense – learning needs time to reflect how the learning process progressed, what worked out and what needs to be done differently next time.

Race's model of learning shares similarities with that by Kolb since it is based on experiential learning. By contrast, it differs from Kolb's model in that its range of elements are not constituting a sequential cycle. However, these models constitute an integrated, interacting whole.

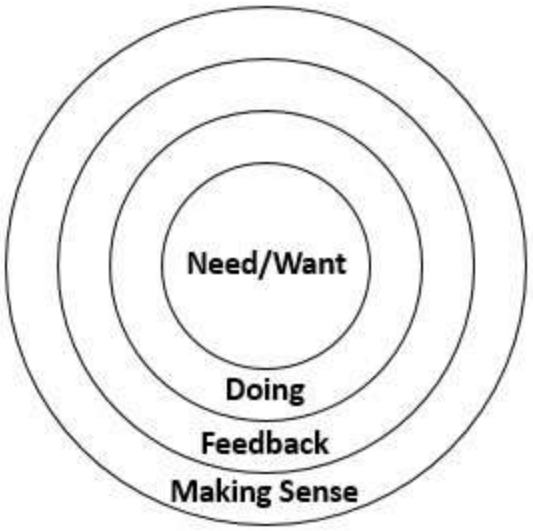

Figure 2.2: Race's 1993 Ripples Model of Learning

Race's experiential learning model contends that students learn by doing and they need to be encouraged to learn willingly. From the observations of others, they gain feedback from the results of the doing and enable the student to reflect on what he/she learnt and make sense out of it.

Professor Race in 2016 updated his Model and added the concepts of assessing and verbalizing. Race argues that explaining what one learnt to others deepens his/her own learning. He continues to argue that adults themselves learn by teaching children, hence people learn through teaching others (Race, 2020).

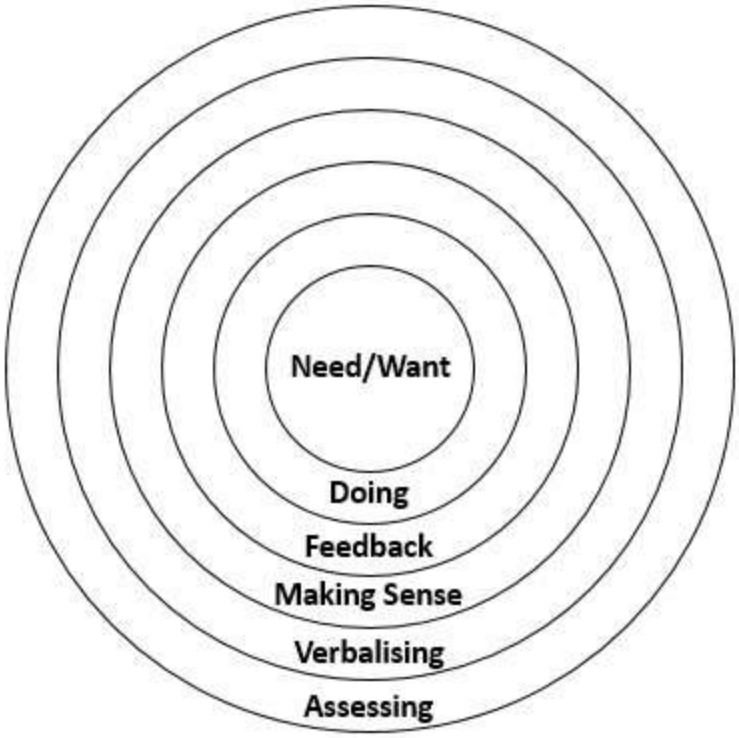

Figure 2.3: Race's 2016 Ripples Model of Learning

This theory is connected to learning Geography because willingness to learn is the key to learning the activities of the subject. Learners construct knowledge through active participation in class. Furthermore, they should be motivated in order to participate in their learning and this applies as well to Geography. It is very essential to always give feedback as it is a vital factor to the motivation and academic improvement of students. Learners are motivated to learn from friends and learning through observation, participation and field reports.

2.3.5.5 Papert's Theory of Constructivism

In the theory of constructivism, individuals learn better by actively creating personal meaningful artifact (Rob & Rob, 2018). According to this theory, knowledge is made by interacting with the environment and exchanging of ideas with others. This theory encourages methods like problem solving. It also calls for learning that is influenced by internal and external factors like motivation and arrangements of learning events. Learners tend to recall what they learnt if they were actively involved during the learning

process. If learners are responsible for their learning, they develop interest towards learning.

In recent times, Papert's principle has had significant influence particularly on Geography education through advocating for learner-centred teaching and learning methods and thereby leading to the discarding of traditional teaching methods that viewed learners as empty vessels that needed to be filled with knowledge. Piaget and Vygotsky regarded learning as the creation of knowledge. If knowledge is created, instruction should guide students to modify their presumptions rather than transfer knowledge to them.

In order to solve problems, students should apply cognitive strategies like questioning technique, discussion method, problem solving and previously learnt rules. What is appreciated is that the approaches mentioned above are the main strategies used in the processes of teaching and learning in Geography. Learners need to recall previous learning experiences in order to be able to solve problems. They can only recall these if they learnt through methods that promote their critical intellectual capacities. Hence this researcher advocates for teaching and learning strategies that reduce the teacher's power of transmitting information in Geography and encouraging students to learn through engaging with their colleagues and environment. This theory therefore supports the teaching of geography as the researcher see it.

2.3.5.6 Piaget's Cognitive Adaptation Theory

Piaget is known for his 1936 theory of cognitive development. He placed importance on children's education and argued that all learners should be introduced to experimental procedures. Piaget urges that focus should be paid on the development of thought since intellectual structures necessary to conduct experiments are formed during early and middle adolescence. For example, certain facts that are informed by Science should not be merely presented to students rather students should be asked to prove them.

Piaget's work explains how humans create knowledge. Piaget (1972:37) insists that the theory of cognitive adaptation explains the influence of direct experience with the environment on learning. During the interaction with the environment, students gain

experience as they come face-to-face with reality and go on to seek for further meaning to explain ideas to check if the initial assumptions are acceptable.

This theory advocates for an active classroom with an actively involved teacher. The teacher should not lecture but should facilitate and encourage students to experiment by providing examples that need reflection. This theory encourages involvement of students in the teaching and learning activities. Learners should play a central role during the teaching and learning activities. Therefore, since Piaget's theory acknowledge the learner – centered approach, it strongly concurs with this research because the researcher bases her research on the methods that give chances to students to participate in their learning and construct their own knowledge. Thus, Piaget's educational practice recommendations centre on teacher training to produce teachers who also understand their students in addition to the subject matter. Hence, Piaget's theory is linked to Kolb's experiential learning theory which is my bench mark theory.

2.3.5.7 Bruner's discovery Learning Theory

Bruner (1966) pays attention to how information is represented and organized through various ways of thinking. He suggested three methods of presentation namely enactive representation, iconic representation and symbolic presentation. This theory recommends that when faced with new material, learners should follow a progression from enactive to iconic to symbolic representation (McLeod, 2019)

Bruner's theory argues that even a very young learner is capable of learning. Infants learn by doing than through internal representation. Learning involves encoding physical action based information and keeping it in the memory. Therefore, teaching should be oriented on experiences and situations that enable the student to be enthusiastic and learn through discovering meanings. Teaching should recognise the significance of readiness to learn and present learning activities in a way to makes sense to the learner Bruner (1966:17).

Education should aim to create autonomous thinking. Bruner (1961) states that the purpose of education is to facilitate the child's problem solving skills and thinking that can be transferred to different situations. Bruner's key principle in his 1960 manuscript was that through active learning students construct knowledge. Dorsch, (2018)

opposes Piaget's view of readiness. He argues that by trying to match the complexity of subject material to a child's cognitive stage of development, schools waste time. This means teachers delay learners as they think that certain topics are difficult to understand and should be taught when they believe that the child is at a suitable developmental stage. Dorsch, (2018) adopts believes that the child is capable of understanding difficult information at any age and that any subject can be effectively delivered to any child at any developmental stage through following the notion of a spiral curriculum. Difficult ideas can be first taught at a simplified level before they are taught at a much higher level.

Bruner (1961) insists that through categorizing and organising information using a coding system, children are able to construct their own knowledge. He believes that the best way of developing a coding system is for learners to discover it than to be told by the teacher. The discovery learning concept means that learners are able to construct knowledge.

The teacher's role is not to teach through rote but it is to facilitate learning. The teacher therefore should prepare lessons in a way that would assist learners to discover relationships between bits of information. The teacher should give learners information without organising it for them. Discovery learning can be aided by the use of a spiral curriculum. Bruner further asserts that teaching should be planned in ways that encourage the shifting from information transmission to knowledge construction. He further maintained that students learn concepts through articulating and trying new ideas. He considers learning as a process which involves the creation of new ideas based on preexisting experiences.

This researcher concurs with Bruner's view. Discovery learning is a key approach particularly in Geography education because it encourages the students to think and reason for themselves to make learning memorable.

Teachers should therefore generate opportunities for learners to learn through discovery method. Olusegun (2006:65) contends that since Geography is a practical subject, students should learn and construct knowledge through the learner-centred approach for instance activity-based learning, discovery learning, inquiry, fieldwork etc. Consequently, Bruner's theory and the view of this researcher come to an agreement. They both

emphasize on active learning and students should be the centre of learning while teachers facilitate learning.

2.3.5.8 Novak's Theory of Human Mind

Knowledge construction is a thought-provoking process as it involves activity, thinking, and reflection. At the same time, it is a great achievement to the learner who feels the sense of achievement and comfort when conceptual uncertainty is resolved. Novak (1977:49-51) believes that the learners are able to learn new concepts as constructs new psychological configurations.

Novak (2002:31) admits that the construction of new knowledge needs an individual to be committed in search for new meanings. According to constructivists, the vital goal of education is to create new knowledge and apply it. This means that individuals construct and reconstruct their own knowledge rather than transmitting it to another. This calls for learners to be given strategies that motivate them to be involved in critical thinking, activity – based learning and reflection.

Learners should learn by doing and searching for new meanings to apply new knowledge to solve problems while teachers should only be facilitators. This theory promotes learner – centered methods like active learning methods and problem solving while it also recognises differences in individual learning styles, opinions and experiences. It advocates for the learner-centered approaches which makes it directly linked to Geography education as these days, geographers promote recognises different learning styles, and different perceptions and experiences of learners.

2.3.5.9 APPLICATION OF THE ABOVE THEORIES IN GEOGRAPHY

According to the dictates of constructivism, learners are encouraged to learn at their pace. These theories were examined to find out how they encourage proper curriculum implementation the real situations in class. Constructivism involves aspects like culture, context learners' interests etc. and knowledge application that researchers analyze to realise their impact on curriculum implementation.

The above theories are connected to this study as the researcher stand for the principle that enable students to use their pace in learning in the implementation of the geography curriculum in secondary schools. They support learner – centered approaches and take into consideration student differences in learning and experiences. Literature and the experience of the researcher show that in many secondary schools in Eswatini, the traditional lecture method is used to teach geography. This practice has been seen to be mainly teacher-centered and does not recognize learners' experiences, differences and learning styles. Learners are regarded as passive learners who only receive information and the teaching and learning process is dominated by teachers. For that reason, the aforementioned theories are the vital in encouraging learners' active participation and knowledge constructers to break teacher's dominance in teaching while they remain facilitators of learning in Geography.

Furthermore, Geography is a practical and interactive science subject. Therefore, these theories are acceptable framework for this research since they give the foundation for a range of student – centered methods that make students constructors of knowledge such as excursion, practical and work-constructed learning and problem-solving.

2.4 Conclusion

In conclusion, the chapter focused on the introduction constructivists theories that are relevant to Geography education. All the theories that have been discussed advocate for constructivism hence they are interrelated. Even though each theory has its own weaknesses, they have all also contributed to this study. Geography education agrees with the constructivists viewpoint because it is an outdoor subject practiced in the physical environment, therefore it requires teaching and learning ways that support learner involvement in knowledge construction and makes the learners in control of their own Geography learning. The chapter further discussed in depth constructivism, its guiding principles, in relation to classroom practice.

The next chapter is aimed at discussing and analysing some selected literature relevant to this study. It focuses on a literature study of education policies in general and teaching and learning policies specifically. It further analyses curriculum documents on teaching and learning in Eswatini secondary schools.

CHAPTER 3

AN OVERVIEW OF CURRICULUM CHANGES AND IMPLEMENTATION IN ESWATINI: THE PEDAGOGY OF GEOGRAPHY TEACHING IN SECONDARY SCHOOLS

3.1 INTRODUCTION

In chapter two, the influence of theoretical frameworks to research namely constructivism, was discussed. Important features such as types of constructivism, its guiding principles in relation to classroom practice, its influence in a constructivist classroom as well as the theories for constructive learning were also discussed and how these inform and provide a base to understand the area of the study. This chapter aims to therefore, discuss and analyse literature that is relevant to this study. Researchers usually review literature to find out what has been previously written about their topic of interest that they intend to investigate.

Cooper, Garside, Varley-Campbell, Talens-Bou, Booth & Britten, (2020) attest to this when they agree that literature review is useful to the researchers as they collect the ideas of others on certain research questions and see if one literature search relates to one another. Therefore, researchers compare literature in light of their situation and concerns and then they are able to evaluate its relevance to their research questions.

Researchers need to read especially published literature that is relevant to the topic of their study in order to have an understanding of the problem locally, regionally and internationally. This chapter reviews literature from different scholars that is relevant to the study. It does this by reviewing literature on the philosophical foundations of curriculum, approaches of teaching, teacher competence, teaching methods, and factors influencing implementation of a curriculum.

3.2 DEFINING PHILOSOPHIES OF EDUCATION

Education is a process of giving and receiving instructions systematically at a learning institution and that by which society transmits deliberately its accumulated values, skills and knowledge generationally (Ornstein & Hunkins, 2017). Education's main aim is the development of an individual, mentally, spiritually and physically. The education's social aim is also important since an individual lives in the society and has obligations towards the nation. It has been suggested that education should perform its national functions. Its structure, content and goals should correspond with social interests, progress and national development.

Educational nature and social change should first be understood in terms of its purpose and sources (Suyanto, 2018). Sometimes, pressure for change in education policy may come from internal and external forces as well as natural disasters (Bergh & Wahlström, 2018). Natural disasters may include earthquakes as well as floods and famine while external forces include imported technologies and value as well as immigration. There is always pressure in pluralistic societies for educational change. As the society becomes more complex, these pressures change. In order for societies to be able to attain excellence in science and technology, education should enable them to move with time.

3.3 PHILOSOPHICAL FOUNDATIONS OF CURRICULUM

The curriculum is a set of activities and content planned at school level, program level or individual level for teachers to teach and students to learn (Ornstein & Hunkins, 2017). In general, the objectives of a curriculum are influenced to a larger extent by the society's internal needs and demands. In Eswatini, planning the curriculum includes selecting knowledge that should be transmitted to learners and the principles where this selection is based on. The content of a curriculum reflects the range of knowledge that is viewed as important and is practiced in the society and industry. Curriculum is often reviewed to meet needs and such reforms are considered to change the curriculum for "better" as deemed necessary by the society (Bindayna & Deifalla, 2020).

The three broad categories for curriculum are formal curriculum, informal curriculum and hidden curriculum (Bray, Kobakhidze, Zhang, & Liu 2018). Formal curriculum is the laid down syllabus that is to be learnt by learners. It is the body of knowledge that is officially selected by government through the Ministry of education or anybody offering education to students. In the case of Eswatini, the National Curriculum Centre has the overall responsibility of overseeing the design and implementation of the formal curriculum at all levels of formal schooling. The formal curriculum should meet objectives of educating identified groups of students in their different settings. On the other hand, the Swaziland Examination Council has the responsibility of providing external examinations at all levels. In addition to the formal curriculum, teachers can get other aspects of knowledge from other sources and such additional material is referred to as informal curriculum. On the other hand, hidden curriculum also referred to as collateral curriculum nonetheless non-academic is an educationally significant components of schooling (Ito, Kubota, & Ohtake, 2020). The influence of this curriculum on learning is so significant and can be evident in the behaviour and attitudes of learners during and after completing schooling Ito et al, (2020). Students tend to remember what they learn in a hidden curriculum longer than what they learn in the formal curriculum. Elya, (2021) calls for acknowledgement of positive learning from the hidden curriculum so that it could be treated as an important part of planned and guided learning experiences.

3.4 RELEVANCE AND CHANGES IN EDUCATION SYSTEMS

Education plays an important role in learners' consciousness, self-concept, world view and overall outlook on life. Emphasis of designs of the personal relevance curriculum are on personal autonomy, growth, unique meaning and integrity. Personal growth is seen as the process of development to autonomous, self-actualizing, happy and healthy human beings. Intellect and body development are of equal importance. Within this context education means holistic growth towards human and personal goals; and integration of aesthetic, creative, cognitive, vocational and moral dimensions of being human. Hammer, (2016) says that learners should be at liberty to develop and be involved in defining their own curricula based on their goals, interests, capabilities and developmental levels.

There are examples where pressure for changes in an education increases as societies become more complex and this has been experienced by highly developed countries like USA as well as where social groups perceive a discrepancy between educational values and outcomes that affect them and those that they have interests on. According to Osborne, (2017) creating an aligned 21st century public education system that prepares learners, employees and citizens to achieve in the global skills race is an important economic competitiveness issue for the next decade. The call was for the USA to action in preparing Americans to be competitive due to a number of reasons which included the major changes in the economy, businesses, jobs and new different skills that were in demand. The frontline challenge in education is how to make school systems more effective (Wargo, Carr, Budge, & Canfield (2021) due to the fast social, technological and economic changes in the world.

Over years a lot of concerns have been raised by many scholars in terms of the reliability of the education in African countries and a call for the education systems to change. According to the Inter – Agency Network for Education in Emergencies (INEE, 2004) in order for an education to be relevant, local positive cultural practices and traditions, needs of the community and belief systems to make education relevant, local traditions and institutions, positive cultural practices, belief systems and the needs of the community are to be included in the education programme. This should include long-term needs that learners would have in future in the society and beyond.

After gaining independence in the 60s, most African countries paid less attention on whether knowledge conveyed in schools was relevant to their young citizens (Meyer, Kamens, & Benavot, 2017). Rather, their urgent problems pertained to government take-over of private schools, building of new schools, expansion of education as well as reforming racially-segregated schools.

It is commonly accepted that systems of education worldwide face social and economic pressures and are failing to meet the needs of increasing–knowledge based economies (Altbach, Reisberg, & Rumbley, 2019). According to Oppong (2019), reforms in education are usually undertaken as systematic efforts intended to bring huge changes to the education system. The purpose is to expand the system and improve it to make it better

adapted to the population needs. There are gaps in terms of achievement of higher education goals of research, teaching, information distribution, pursuit of service to the community and calling for urgent reforms of the sector as stated by Tan, (2021). Lack of skills to meet job requirements have been seen as one of the major reasons for the high rate of graduate unemployment in many African countries (Fox, Senbet, & Simbanegavi, (2016). In the short run, the challenge is how to develop a curriculum that would promote self-employment and enable graduates to be employers.

3.5 TRENDS IN CURRICULUM REVIEW AND CURRICULUM CHANGE

Considerable literature on recent curriculum reforms explored issues that negatively affect and limit the success of any implementation of a curriculum reform. This section of the research describes in brief current trends in curriculum reform in general and give reasons behind their implementation and their outcomes. It further gives context and background of curriculum reform in Eswatini since 2006.

Educational reform's main aim is to bring changes in the education system and in the process of teaching and learning. Care, Kim, Vista, & Anderson (2018) assert that education reforms are viewed as mechanisms for solving problems especially in modern societies that face complex problems. As in other countries, in Eswatini, the aim of educational reforms is to address past colonial inequalities, deal with current skills shortages in science and technology as well as make the curriculum relevant to modern times. Curriculum reforms may also be introduced with the aim of producing scientifically knowledgeable citizens capable of being competitive nationally and internationally and contributing towards the country's economic growth.

However, designing and introducing a new curriculum does not guarantee overcoming of problems and challenges (Sentance, & Csizmadia, (2017). Various factors including teachers' acceptance and understanding of the new curriculum, professional development, appropriate resources and learner adaptation to change can affect the implementation phase. Though policy documents have educationally sound and visionary ideas, implementing these is usually difficult and slower than anticipated. There is belief that there should be more work done on implementation if the dictates of the new

curriculum are to have influence in schools. To address such challenges, the Ministry of Education and training in Eswatini should introduce programmes to assist teachers to understand the introduced curriculum and changes in the teaching practices.

Change as a process is subjective. From their experienced changes, individuals construct their personal meanings, Badal (2018). It is worth noting that those involved in curriculum reforms have their own conceptions on how change should progress, and their performance is according to these. On that note, it can therefore not be said that teachers do not have their willpowers and can be easily influenced. Andriof, Waddock, Husted, & Rahman, (2017), contend that it is important to assess and find out whether all stakeholders are focusing on the same direction, and to understand how they construct the meaning that they attach to reforms. Furthermore, Mulenga & Mwanza, (2019) assert that teachers should be included in the reform process because all innovations have new learning and values for those who encounter them for the first time and need time to embrace them.

In a study conducted by Sişman, & Karsantik, (2021) on how contextual factors affected curriculum change in Singapore, they demonstrated that it was necessary to research the process of Singapore's education change as rapid change could result in complicated problems. They highlighted that the curriculum change undertaken was more comprehensive and all-embracing as opposed to previous curriculum changes. The aim of the reform was to deal with and overcome weaknesses in the school system, which included lack of correlation between contents of certain school subjects including geography; overloaded school curriculum, and failure to adapt the contents to the potential student' needs. It also focused on the lack of skills development and correspondence between taught knowledge at school and student's life experiences.

Huang & Cheng, (2022) stated that curriculum developments carried out in China were meant to offer a new framework for teaching geography in secondary schools in Chinese. The changes were aimed at improving the learning style of the old curriculum. Due to the pressure of college entrance examinations, for a long time, several schools had implemented a closed-in management style. In this style, learners spent more time in

schools with little contact with the outside world, therefore, the new curriculum had to change this Huang & Cheng, (2022).

As a subject taught in schools, Geography is expressive, problem-solving, practical and intellectually stimulating. According to Clayton (2020), Geography became recognised as an academic discipline and became part of the university curriculum in Europe in the 18th and 19th centuries. The influences of Alexander Von Humboldt and Karl Ritter were a main turning point in Geography as an academic subject. They made different experiments about the advancement in computer technology which led to the development of geomatics, participant observation and geostatistics being incorporated into geographies portfolio of tools. During the 20th Century in the West, the discipline of Geography went through four main phases:

- Environmental determinism.
- Regional geography.
- The quantitative revolution.
- The critical geography.

During that time, the strong links between the sciences of geology and botany, geography as well as sociology, economics, and demographics had grown greatly especially as a result of Earth System Science that pursued to understand the world holistically.

Upon independence in East Africa, a general feeling was that the Geography school syllabus formulated under the colonialism umbrella did not address the aspirations and needs of a sovereign state in terms of its content, teaching approach and the way it was examined Clayton (2020). In designing the new syllabus (introduced in January, 1972), emphasis included the importance of moving away from pure examination requirements towards the value of the contents to be studied. For example, it was noted that Geography courses in secondary schools must give learners educational experience that could be used to improve livelihoods. It was also noted that the existing instructional materials especially textbooks, suited the “old” way of teaching.

The panel tasked with reviewing the relevance of the East African Geography curriculum begun by assessing the whole educational, political, economic and social aspirations of

the countries in the region. It was agreed that if Geography was to be of some use to these countries, its values should not be conceived in terms of the bodies of facts, information, data or contents but rather in terms of the wealth of ideas, concepts, skills, attitudes and behaviours engendered by its study Clayton (2020).

Through conducting extensive and intensive interviews, Pretorius, (2017) investigated the status and the role of Geography as an academic discipline in South Africa. The findings revealed that emerging trends that were mostly related to recent socio-political changes were dominant in applied Geography. Lastly, the findings demonstrated challenges faced by the subject and suggested ways that teachers could plan and implement new programs within the framework of existing syllabuses.

3.6 IMPLEMENTATION OF CHANGED EDUCATION SYSTEMS AND CURRICULUM

In order for the process of implementing a syllabus to be successful, it should have the backing of the government or some other kind of education authority and the teachers should be capable of meeting its demands Gürsoy, & Elif, (2018). The other requirements are that there should be adequate teaching/learning materials for both teachers and learners and it should lead to a public examination. Similarly, Mukhamedov, Khodjamkulov, & Shofkorov, (2020) sums up other reasons contributing to failure to implement change as failure to promote secondary innovations (organisational changes) which provide enabling support for the primary innovations (changes to teaching materials and pedagogy).

The main barriers facing innovations in teaching and learning can be categorized into three groups: teacher related, system related, and school related Njuki, (2018). The teacher related factors include: lack of understanding and ownership of the innovation; change not congruent with current teacher values and beliefs, teachers emotionally connected to existing practices; and change that poses personal threats. System related obstacles include: trust and communication between implementers and change agents, emphasis on innovation than on how it should be implemented, lack of necessary resources, inadequate support and professional development for teachers, failure to bridge rhetoric and reality gap, failures of past innovations; failure to align the pedagogic

innovation with high-stakes examinations requirements. The school related challenges are: lack of support for change, forces that are conservative within the school, lack of understanding and support from top management, lack of resources at school, learner challenges in adapting to change particularly if its rationale has not been properly communicated.

In view of the multiple challenges facing the implementation of innovations and efforts to improve implementation, Putwain, & von der Embse, (2019) outline some of the conditions which act as facilitating factors: the innovation not too ambitious and is supported by adequate secondary innovations, has suitable time frames and aims to get early successes that generate positive sentiments and momentum.

When introducing the new Geography syllabus in Pakistan, resource materials were produced and teachers were re-oriented to the overall theme of the new syllabus. Teachers were taken through a series of in-service courses Shah, (2022). As a result of the changes made on the Geography curriculum teaching in Chinese secondary schools, teachers teaching the subject experienced some challenges related to innovations, function, structure, content, implementation, evaluation and administration of the new curriculum Huang, & Cheng, (2022).

When evaluating the nature of a new Senior Secondary Syllabus on various subjects including Geography and likely challenges on its implementation in Hong Kong, Japan, Tse, & Hui, (2016) reported that it brought changes in content and new demands in all subjects. Also, learners and teachers felt they should be involved in the implementation of the curriculum and should make appropriate changes to their teaching and learning processes. Lastly, they recommended that the Education Bureau and Examinations and Assessment Authority needed to improve the curriculum and assessment process to be in line with the new curriculum. By contrast, a study conducted in Poland, Tetiurka (2018) adopted a bottom-up innovations approach that involved timely training of teachers who in turn were able to cope with the new curriculum developments.

Raselimo, (2017) noted that the Lesotho Environmental Education Support Project's (LEESP) curriculum goals were to introduce necessary innovations that could bring change in Lesotho's formal education system particularly junior secondary Geography.

He argued that the success of this LEESP depended on how teachers interpreted and put into practice new curriculum ideas.

While teachers are viewed as important change agents, they are also obstacles to change because they tend to adhere to old fashioned forms of instruction. An observation by Raselimo, (2017) indicated that when curriculum changes were introduced, teachers needed to be given enough time to understand and reflect on the implications of change for their practice. Supportive structures should be created when changing the curriculum, for example organizational structure, favourable examination.

3.7 POLICY AND INSTITUTIONAL SET UP FOR CURRICULUM DEVELOPMENT AND IMPLEMENTATION IN ESWATINI

Eswatini got independence from Britain in 1968. Like other African countries, soon after independence, Eswatini looked up to education as the key factor in building the nation and fulfilment of individual needs and aspirations. Therefore, educational policies written soon after independence were based on social demands than on economic factors.

In prefacing the first post-independence National Development Plan (1969-1973), the first Prime Minister of Eswatini, Prince Makhosini Dlamini said that the development plan was a socio-economic programme aimed at improving the conditions of living for the people of Eswatini. The government of Eswatini invested money on education. The manifesto stated that the goal of education was to produce participant and enlightened citizenry and its content was to be work-oriented from primary to higher levels (Dlamini, 1972).

As Eswatini goes into the 21st century, like other developing countries, it has no option but to transform itself to face new millennium challenges. Because of the unique character of education, in terms of diversity, power, quality of preparation, and society's respect for and expectations of education, it has to play a significant role in that transformation. The 21st century appears to impose two equally formidable challenges on education. The first is to help Eswatini discard non progressive values, attitudes and technologies of the 20th century and take on board those required for the 21st century. The second is to be cautious enough to retain a cultural heritage that not only gives it an identity, but resilience in the competitive conformist global environment.

3.8 INSTITUTIONS THAT PLAY A ROLE IN CURRICULUM REVIEW AND IMPLEMENTATION IN ESWATINI

The Ministry of education and Training (MOET) is responsible for educational activities while the National Curriculum Centre (NCC) is tasked with developing curriculum for primary and secondary education. The main function of the former is to interpret policy, formulate objectives and produce education programs for the school system. The NCC was established in 1983 and is responsible for developing curriculum materials for the primary and secondary education.

The Teaching Service Commission (TSC) is responsible for the recruitment, development, discipline and promotion of teachers. The Examinations Council of Eswatini administers summative examinations and assessment of students in schools. It ensures quality and standards of examinations that they are in line with the curriculum and conforms to international standards and expectations for selection purposes to tertiary institutions.

3.9 EFFECTS OF CURRICULUM CHANGE IN TEACHING AND LEARNING OF GEOGRAPHY

3.9.1 Approaches behind the teaching and learning of geography

Change can provoke mixed feelings. It can be a source of positive reactions if received positively, raising hope and progress. However, it can bring despair if received negatively. Regardless of training that is meant to prepare teachers for changes in curriculum, such changes pose challenges to teachers in their classrooms (Lavonen, (2020). The implementation of new approaches in Geography teaching has moved the focus of teaching and learning away from passive learning to concrete educational results called competency-based. Moreover, Joel (2017) says that the role of teachers has changed from being transmitters of knowledge to facilitators who help learners to achieve desired goals. Classroom activities use the learner-centred approach.

One of the reasons for the change of the education system was because the traditional way of teaching was seen to be no longer relevant to the current times. There was a need

for Eswatini to introduce education reforms that encouraged people to be lifelong learners and responsible members of the society. According to Kalamas Hedden, Worthy, Akins, Slinger-Friedman, & Paul (2017) the lessons with effective goals permit students to evaluate the interaction between the goal, their actions, and feedback. These attributes allow learners to identify ways to take action as well as recognize and take responsibility of their actions as learners. This constructivists' instruction approach from the teaching approaches involves curriculum and teaching methods that promote learner involvement.

The subject matter of Geography is taught differently at different levels of school education. At lower primary level, small kids are introduced to Geography by exposing them to the natural environment. At later primary stage, Geography is taught through environmental studies whereby children are introduced to concepts concerning the discovery and understanding of the interrelationships between the natural and social. At upper primary and secondary levels, Geography is integrated into social sciences where it assists the learner in developing an appropriate view point related to environment, resources and development locally and internationally.

Geography as a subject advocates for learner-centered pedagogy which means it is dominated by learners' experience and active participation. According to this approach, teaching and learning in Geography should put emphasis on assisting learners to gain skills and knowledge in an environment that is interactive. The learning process should promote creativity and inquiry among learners. The Geography teacher must simplify concepts in a language understandable to learners and must make learning participatory by involving learners in discussion. This approach of learning keeps both teachers and learners alive to social realities. Geography teachers should explain concepts through lived experiences of individuals and communities.

The student-centered approach provides learners with a flexible system of learning geared to learning styles and individuals. In this approach, the school and the teacher play supportive rather than dominant roles. The teacher's role in this approach is primarily to facilitate and construct learning opportunities that encourage learners to work together and build a body of knowledge (Emaliana, 2017).

Therefore, the teacher ought to be concerned with making the learning process active by giving attention to the student. Learners are encouraged to work collaboratively among themselves and instructors, and between classes, while working independently adopting active learning methods for example field trips, discussions, group projects, case study, role playing exercises, collaborative work and research.

Active learning entails engagement and activeness in the learning process. Stewart, (2021) concurs that the teacher only acts as a facilitator, guiding learners through activities and allowing them to take control of the learning process itself.

Therefore, in principle, a process of teaching and learning involving the learner-centred approach requires that students be responsible for their learning and knowledge construction through active participation. Teachers facilitate the process through using various teaching and learning strategies and motivating students by giving activities instant and positive feedback. These principles of teaching should be practiced in the teaching and learning of Geography.

3.9.2 Teaching-learning methods in Geography

One major innovation associated with the teaching of the subject of Geography is the use of problem-solving instructional methods. According to Emaliana, (2017), the content and objectives determine the methods to be used. In a good lesson, different methods are used to suit the needs of all students. Different teaching methods allow the teacher to impart knowledge, skills, values and attitudes to the learners. Simonyi & Homoki, (2020) states that these methods include discussions, inquiry method, questioning, and activity based methods etc.

Regardless of the availability of these wide-range of teaching methods, their choice and use by teachers depends on certain factors such as subject matter, lesson objectives, knowledge and skill to be developed. Therefore, teachers ought to select methods that promote active learner participation in the classroom. Such methods are explained in details below.

3.9.2.1 Lecture Method

Dhakal, (2019, states that the lecture method is one of the oldest traditional teaching methods where the teacher creates interest in order to inspire and arouse learners to be involved in learning by using verbal message. This method encourages passiveness as students only listen and take notes. Lecturing involves formal and informal methods. In the latter, communication is two way, while in the former, communication is one way. The informal lecture is appropriate for the teaching of Geography because it gives the teacher feedback from learners.

Lecturing focuses on the teacher and is mostly used by Geography teachers to present factual information or when teaching big classes. On the other hand, Berry, (2019) asserts that the lecture method limits learner participation in class and does not develop learners' reasoning power. Teachers are advised to use this method when presenting materials that are not easily accessible, when complementing text book supplies, when arousing interest and appreciation as well as for making a summary of important points after a unit.

3.9.2.2 Questioning Method

A question is any sentence which has a probing purpose. When using the questioning method, the teacher asks learners questions and they are expected to give answers. According to Dhakal, (2019) questioning is one of superficial methods used in teaching and is usually badly used. He further notes that at different levels of education in all subjects, lessons could be taught from the beginning to the end through the questioning method. It can however be combined with any other suitable methods in class. Questioning is a method that is essential in the process of teaching and learning particularly in a constructivist learning approach. The teacher prepares questions in advance that would be asked to learners. While setting the questions, the teacher should predict questions that learners are likely to ask. Questioning makes the teaching and learning process participatory and lively. It promotes thinking and reasoning on the part of learners. Quality questions encourage earners to think and apply acquired knowledge to solve problems. A properly structured question provides the learners with a lead to further proceed with learning.

In teaching and learning, questioning is used to make estimates of learners' previous experiences through stimulating the thought process. Many teachers use questioning to encourage and promote discussion. As a learner-centered approach, questioning fortifies students' motivation, builds learners and teachers' relationships, promotes learner communication and active learning. It also gives responsibility for one's own learning. Questioning encourages critical thinking in learners and enhances the performance of both the learner and the teacher. As an experienced teacher, supported by research findings, the researcher can attest to the fact that questioning is a method of teaching that is common and used widely. Geography teachers should use thought provoking questioning when teaching so that students can accomplish the objectives of a syllabus.

3.9.2.3 Discussion Method

Discussion involves an oral interaction between people, consisting of questions and answers by the participants Simonyi & Homoki, (2020). A discussion is an effective method of teaching because it encourages active involvement of learners. Its use is appropriate for achieving the objectives of Geography because it offers an effective way of employing facts and information and developing skills. Through this method, students learn to communicate ideas as well as to separate and evaluate them as per the dictates of the Examinations Council of Eswatini ECESWA (2020) syllabus. One of the goals of teaching Geography in secondary schools is to interpret, analyse and use methods and principles of the subject to solve national development problems. This ensures better understanding and makes learning meaningful and lasting for the learners.

Simonyi & Homoki, (2020) state that there is expository oriented discussion and inquiry oriented discussion. In expository oriented discussion, teachers outline the learning objectives and activities, demonstrate and then invite questions from learners before drawing a conclusion of the teaching activity. In inquiry based discussion, the teacher states the objectives, organizes for discussions to occur, and the whole activity is open ended. This is not suitable for Geography teaching because it does not give an opportunity for reaching specific conclusions.

Wilcke & Budke, (2019) contend that the discussion method can be successful and effective when students are given enough time to do research and search for information on a particular topic. The teacher should suggest sources of information that can be consulted or used by the students. Students should be organized in proper groups and group leaders chosen to record the points contributed during discussion. When using the discussion approach, the role of the teacher is to facilitate, guide, moderate and aid discussions. Students are given time to actively partake and express their ideas in the lesson. The discussion method is appropriate for topics that require a flow of ideas and information from students to teacher, teacher to students and student to student.

Dhakal, (2019) states that the discussion is one of the most powerful methods of teaching since it promotes interaction and student involvement during the lesson. Moreover, he clarifies that the effectiveness of the discussion method can be improved if sufficient instructional materials are effectively used with the implementation of the methods.

3.9.2.4 Observation Method

According to Psychologists, children have instinct of inquisitiveness and are curious to see things that are around them. Therefore, geographers took advantage of this fact. Children learn better when they observe and discover facts for themselves on their own effort as such become a part of their mental life. Through observation, learners are able to observe, interpret and record their findings. Information obtained through direct observation is the foundation to the Geography subject.

When teaching Geography, the observation method can be used inside and outside the classroom. For example, when used inside the classroom, learners can observe the Globe as a useful aid to learn concepts as longitudes, latitudes and meridians. They can also prepare charts by themselves or provided by the teacher to enhance their observation. After observations, children can convert the results of their observations into models.

The teacher can adopt certain modes outside the classroom to enrich children's observation. Geography is an observational science. Real geography exists outside the classroom because in the classroom the teacher and learners are limited to the text

books, maps and the globe. Outside the classroom however, students are able to observe geographical phenomena like velocity and direction of wind, clouds, rivers, mountains and valleys. Firsthand experiences on these occurrences of nature give perfect understanding of natural activities.

Outside the classroom, there are trees, soil, the crops etc. These form part of the content of geography. Through observations followed by classroom discussions, the learners are enriched in knowledge of geographical realities. Geography teachers would make students study neighboring environments, the landscape and what it offers to man and the interrelationship between man and the environment to make his living meaningful. Excursions educate and entertain, therefore students learn by interacting with their environment.

3.9.2.5 Demonstration Method

Through the demonstration method, teachers show different geographical phenomena and processes to learners so that they can experience and understand concepts properly. Demonstrations are done by means of two or three dimensional models, visual charts, power point presentations, multimedia presentations etc. Through demonstration, learners pay attention as they are motivated and interested in the lesson. Both the teacher and learners become active participants during demonstrations. For example, the teacher would demonstrate properties of rocks with the help of rock specimens.

The syllabus of Geography that is taught in secondary schools in Eswatini suggests that teachers should use demonstration as one of the teaching methods. It also states that Geography should enable the student to get suitable skills as a basis for industrial and technological development (ECESWA, 2020). While knowledge acquisition can be through oral instruction, skills can be acquired through demonstration. Berry, (2019) posited that the demonstration method is needed to enable students to perform an activity on their own individually or as a group.

There are various topics that can be taught successfully through demonstration in Geography and these include map work and weather measurement. Demonstration combines doing, talking and showing for the benefit of the learner. Through

demonstration, learners are able to observe and this stimulates their thinking and formation of concepts. This builds confidence in them and helps them to perform well in their examinations. When using demonstrations, the teacher is supposed to plan well and do rehearsals. The success of demonstrations reveal competence on the side of the teacher.

3.9.2.6 Field work as a method of teaching

France & Haigh, (2018) defines the field work teaching method as providing experiential, sometimes transformative learning through the immersion of the learner in the field experience. It is a science of observing, selecting, evaluating and reporting information in a particular area. It encompasses direct interaction with the environment which is the source of physical information. Fieldwork can be prearranged to take place in the school neighborhood. Contrary to the view that the method is not effects, it is and for it to be effective, it ought to take place in a faraway area. The misconception on the ineffectiveness has resulted to fieldwork being practiced by few schools and for a limited number of times in some learners' whole secondary school life. Planning for long distance fieldwork is costly when learners are travelling to far places, and learners are exposed to high travelling risks. Study trips are time-consuming and very excessive to the teachers and are unpopular as they have other commitments.

According to Kinder, (2018) a field trip is an effective teaching method in secondary schools. They point out that to reap good results, students should be involved throughout the process. This goes from gathering information on the topic and preparing instruments for data collection. Student involvement is very essential in all the stages such as data collection activities whereby they ask questions, collect samples and record information. They should also write reports, present, and display collected items and do tests.

Field work offers chances for firsthand investigations of the phenomena on the environment and it exposes learners to diverse environments and cultures in their local societies. It teaches learners to gather, analyse and present data thus sharpening their observation skills, learn to record, measure and evaluate findings. As a result, fieldwork has significantly contributed in making Geography enjoyable and real. Therefore, all

learners who study the subject should be exposed to the experience of fieldwork. It should allow students to identify the problem or an issue in a particular area, gather, analyse and present data, and finally come up with possible solutions to the problem. This means that it should not limit students to visits and guided tours whereby they are only involved in passive activities like observations, listening, and note-taking.

3.9.2.7 Project as a method of teaching

According to Simonyi & Homoki, (2020) the project method is an activity carried out by learners in a natural and life like manner in order to achieve a certain attainable goal. It is actually studying a real life-challenging situation in its natural setting in order to get a concrete and positive achievement. Basically, a project is a learning unit, designed and carried out by learners where the teacher acts as guide or supervisor. From their background experiences, students are encouraged by the teacher to establish their project goals and to work through study activities in order to achieve those goals.

Therefore, as a teaching method, one gathers that a project involves learners studying a real problem in their environment that when solved, they see positive changes in their own environment. For example, learners can be taken to an area for example around the school premises that would have been affected by soil erosion and then given a task to work as groups to conserve that soil. Should they do this task successfully, they appreciate their work and feel satisfied.

A project has educational value when it aims at one or more definite goals of understanding. It enables solution of problems through investigations as well as the use and manipulation of physical materials. It ought to be planned and the teacher guides students to conduct it out up to completion. The project method psychologically, is based on the principles of learning by doing through encouraging purposeful activity on the part of learners. During project activities, the physical and mental powers of learners are utilised.

Since the method emphasizes that the teacher only guides the students, the method is considered to be learner-centred. This method allows students to initiate and pursue knowledge, learn at their own pace, develop curiosity and use an investigative approach

to obtain knowledge while the teacher provides learners with an opportunity to come into contact with challenges, problems and opportunities in real life situations. These stated qualities of the project method are coherent to the general objectives of the Geography syllabus in secondary schools which states that students should demonstrate the acquisition of positive attitudes, skills and values for self-reliance (ECESWA, 2020).

3.9.2.8 Simulation and Role Play Method in Geography

Whyte, (2016) describes simulation as a method of creating a real world model where participants undertake different roles to make decisions on raised issues and difficulties faced. Simulation creates opportunities for experimentation, exploration and decision making aimed at resolving issues and problems affecting people in their environment. Furthermore, through the effective use of simulation in teaching Geography, learners develop insight into society's issues and problems. They get to experience the outside world in a realistic, dynamic and stimulating manner as they become actively involved in the teaching and learning process.

Through simulation activities, students play roles in classrooms and these roles focus on the society's current events. The activities present elementary social, economic and political procedures that students study and learn through direct practices and experiences in their own setting. Learners are able to give free expressions in their creative abilities without any hindrances. It trains learners to manage and direct their own affairs. They learn to interact with one another closely and to be flexible in their thinking as they approach different situations. This develops intrinsic motivation for their school work while understanding the value and nature of decision making in the daily lives of nations and individuals.

Simulation and Role Play in Geography has a number of advantages. It empowers learners with analytic and synthesis skills and enables them to think ahead of an existing situation. Lastly, role play enables Geography students to understand diverse viewpoints.

3.9.3 Teaching -learning resources

By its nature, the subject of Geography has different learning resources. In a typical lesson, a number of materials and objects are used to implement the content. Collectively, these are learning resource or instructional media. Whyte, (2016) contends that during breaks or when related extracurricular activities are organized, learners should be encouraged to handle and use learning resources.

A geographical enquiry should involve the use of diverse resources like textbooks, atlases, maps, globes, chalkboard, pictures, charts, models, video film, radio, internet models, computer soft wares, interactive games, internet, weather instruments, specific sample items etc. These resources motivate and engage learners since they meet their different needs. Moreover, Geography should be taught in a classroom with adequate space to accommodate practical work and necessary resources such as computers, charts, books, maps, apparatus etc.

Teachers and students can use teaching and learning resources during instruction in order to achieve the objectives of each lesson. The use of learning resources results in effective teaching and learning because they enable students to learning objectives more efficiently and effectively. Learning resources assist Geography teachers to clarify, interpret concepts, establish correlating accuracy and convey information to students clearly, precisely and accurately. Through the use of learning resources, learners gain more accurate information, learn faster and remember for longer time. Through creation of visual images, they enable retention of the learnt concepts. The next section discusses specific learning resources for Geography.

3.9.3.1 Geography Textbooks in supporting critical thinking

A textbook is written by experts in the field so that it could be used for teaching a certain subject area. The importance of a textbook in a classroom situation can never be over-emphasised. It is used by teachers in different ways in class. Other schools depend on textbooks as the only source of performing the teaching process. In other schools, the textbooks are used by teachers as supporting material. In Eswatini, different specialized

agencies develop textbooks. At national level, the National Curriculum Centre (NCC) develops the curriculum for all the school level subject areas like Siswati, English languages etc. Nationally, textbook development is entrusted upon Macmillan publishers and other private publishers who develop school text books.

In the subject of Geography, through reading textbooks, learners are able to engage in several activities such as content enrichment through information given in boxes, visual based questions and puzzles etc. These activities make learners to be interested in the subject and to engage in learning (Usher, 2021).

3.9.3.2 Importance of an Atlas to Geography teachers

An atlas is a big number of maps compiled in a volume. It has many maps related to different countries, regions and continents. It also has many thematic maps of various regions. Atlases also have information diagrams, tables and graphs. An atlas is used to find places and to compare information globally. They enrich learners' understanding of the earth as a human habitat. Since textbooks have limited number of maps it is advisable that teachers should use atlases in the teaching and learning of geography.

An atlas can be in the hardcopy form structured like most text books, or can be in a digital form. The front pages of the atlas usually have the table of contents that lists pages where different maps are found. The atlas' main content comprises of different types of maps ranging from continental to small towns and cities. At the back the atlas usually has index pages where all countries, town and cities found in the map are listed. Geography teachers conveniently use the atlas as a supplementary material in the subject area (Beitlova, Popelka, Voženílek, Fačevicová, Janečková, & Matlach, 2021)

3.9.3.3 Geographic literacy made easier with maps

A map is a symbolized, selective and generalised representation of the part or whole earth at a reduced scale. Maps have the title, map projection, scale, direction, legend and conventional signs. Maps are classified according to purpose and content.

1) Maps according to scale: Maps are drawn on scales that vary depending on the size and area covered by the map. They are grouped into: large maps that include cadastral

and topographical maps. Another group comprise of small scale maps that include atlas maps and wall maps.

2) Maps according to purpose and content: Based on purpose and content, a map can be divided into two wide categories: Natural or Physical Maps: They display natural phenomena such as natural vegetation, soils, climate etc. physical/relief maps show the earth's features like rivers, plateaus, mountains, plains and oceans.

3) Cultural Maps: They show cultural landscape like demographic, socio-cultural, political, historical and economic information etc. political maps show countries, villages, towns and cities.

Thematic maps show distribution of rainfall, temperature, minerals, industries, population etc. More information is provided by maps than the globe and as a result, they are a useful pedagogical tool. They enable learners to grasp concepts, analyse and integrate ideas thus drawing inferences and conclusions. It is compulsory that maps must be used in the teaching and learning of Geography because they enable learners to observe, compare, analyse and infer using. Doing so assist learners to grasp a number of concepts in Geographical for example when teaching natural vegetation, physiographic maps can be used to help students to understand the concepts better.

It is advisable that teachers make sure that their learners are able to master mapping skills. These skills are supposed to be integrated by teachers into the teaching and learning of the geography curriculum. Understanding and using maps involve the use skills and concepts like aerial perspective, map arrangement and language (García-González, Gómez-Gonçalves, Gómez-Trigueros, & Sebastián, 2021). Learners should be given a chance to develop map literacy in order for them to use maps to find out and critically interpret the world around them in an informed manner. In an enquiry based approach, learners should have access to a variety of maps like atlases, globes and large wall maps on electronic media like Google Map and Google Earth etc.

3.9.3.3.1 The Globe an essential model in Geography teaching

The globe is the nearest approximation of the earth. It spherically represents the earth's surface. It is one of the instructional media that is indispensable and is used widely when teaching Geography. It would be difficult for a teacher to explain the shape of the earth without using the globe. Through its use, the teacher can explain the axis of earth, the North and South Poles, the Equator, latitude and longitude lines as well as how their intersection assist in locating with precision anyplace on the earth.

One can form a correct idea of location, shape and size of continents and oceans through the help of the globe. The globe gives the idea of revolution and rotation of the earth causing day, night and seasons. It also shows how the earth is divided into two equal hemispheres by the equator (Škodová, 2020).

3.9.3.3.2 Improving Geography learning through the use of Pictures

Nowadays, people across the world make use of technology to a wider extent. Of these, smart phones with cameras are the most common. Geography educators can take advantage of these gadgets and use them to develop teaching material resources in the form of images. It is worth noting that pictures are essential tools that are used to illustrate geographical facts. A picture is a painting, drawing or sketch of feature or geographical phenomenon. Numerous geographical features can be demonstrated through pictures. A photograph is picture acquired through making use of a camera.

Geography teachers need to know that pictures and photographs bring reality to learners and make the study of Geography real. They enable learners to develop observation, interpretation and analysis skills. Photographs and pictures attract and sustain learners' attention when they are used to illustrate unfamiliar things to learners. For example, when teaching landscapes, the teacher can use pictures to teach about sand dunes. Of noteworthy, Geography teachers should ensure that they use pictures that are relevant and accurate pictures as well as natural and attractive to stimulate interest of learners. Furthermore, the pictures must be chosen in a way that gives an opportunity for questioning learners based on their observations.

Images and pictures play a significant role in implementing the curriculum. While we know that a textbook is a major foundation for teaching in the Geography classroom, it is a fact that it has less images and photographs. Though the textbook has images, at times the quality of images does not attract the students' attention, maybe due to its poor printing or colour. In such a scenario the teacher can procure necessary pictures and images. However, there are a number of suggestions for these pictures. These include educational magazines, geographical magazines, and national geographic magazines (Fraile-Jurado, Sánchez-Rodríguez, & Leatherman, 2019).

The teacher can choose the suitable pictures and photographs in view of the number of students present in the classroom and objectives of teaching geography. In certain situations, pictures and photographs that are available in text books can be viewed by individual students. Viewing can also be done by students in pairs if the number of those pictures is limited. Students can also view pictures and photographs as a group in the classroom. Different groups can also exchange different photographs and view them. This becomes necessary if pictures and photographs are not enough to cover all students in class. Pictures and photographs can also be projected using a projector and be viewed by the whole class. The teacher can then ask questions based on the projected pictures.

3.9.3.3.3 Using information and communication technology in Geography teaching

The internet is computer based learning resource that is very important and one of the advanced sources for learning Geography. Through the use of computers and internet, technology e-learning instruction can be delivered. E-Learning is web-based learning which uses techniques like simulation, visualisation, animation, audio and video and other forms of creativity. The importance of the internet can never be over emphasised, however the provision of infrastructure in the form of physical, financial and experienced human resources is the main challenge that e-learning faces.

Information and Communication Technology (ICT) impacts the way how students make sense of world, while at the same time offering a variety of tools to support their understanding of Geography. Through the internet, students are able to get current information and also gain access to an enormous data, videos, images and other sources

that can significantly improve their understanding of geography. Through using IT, teachers are able to make lessons active and interesting. This improves students' motivation and learning. Geography teachers must give learners sufficient chances to apply ICT when learning geography.

A wide range of information sources are provided by ICT to enhance the understanding of Geography and to support development of the body of geographical knowledge. It also offers images of places, people and environments that assists learners to develop ideas using ICT tools to refine and amend their work and improve its accuracy and quality. ICT tools assist learners to directly share or exchange information through electronic media. (Demeuov, Tilekova, Tokpanov, Hanchuk, Panteleeva, & Varfolomyeyeva, (2021)

ICT equips learners with the ability to evaluate, review and modify their works while critically reflecting on their quality as they advance. The world is dynamic and ICT skills are on demand these days. Therefore, learning through ICT enables learners to be aware of information systems impact on the changing world thus substantially contributing to the development of various ICT capabilities, especially with regard to the handling of data, use of information sources and modelling and communication technologies.

3.9.4 Factors influencing implementation of a curriculum

Curriculum implementation involves putting the official prescribed syllabuses and subjects into practice Torto, (2017). Curriculum planning should address the challenges that affect the world in which education and the curriculum inhabit and the function of curriculum is to enhance well beings Tan, (2021). It is known that the innovation success should be determined by the extent to which learners make additional learning progress than before the implementation of the innovation. Similarly, the success on the implementation of curriculum innovation can be measured by the extent students make progress in learning as demonstrated by their performance.

In most countries, it is customary that curriculum change significantly impacts teaching and learning. This part of the study checks on how changes of the curriculum impacted teaching and learning in other countries. This comparison benchmarks Eswatini with other

countries for curriculum successes and failures so that the country cannot repeat mistakes made by those countries.

Sentance & Csizmadia, (2017) observe that although the capacity of schools in the UK seem capable to conduct and deliver any curriculum, however there are some challenges and hindering factors that need some consideration. It is worth noting that the following factors are a major concern that need special examination and understanding: in-service training, inequalities in region, and teachers' knowledge and expertise. These factors apply to Eswatini when it comes to the implementation of the school curriculum though there are some variations on how they seriously influence the teaching and learning of various subjects. However, Sentance & Csizmadia, (2017) observe that lack of skills by teachers limit their effectiveness when teaching children in schools.

Just like all other countries of the world, in Eswatini, inequalities in education exist particularly when it comes to the provision of support. These are some of the gaps that might be influencing variations on the impact of curriculum changes in schools in the country. The existing diversity in schools in the education systems have proven that some may not be ready to manage the implementation of the curriculum. This is said to have created a significant gap between what is anticipated and what is possible. For that reason, Clarke & O'Donoghue, (2017) contend that curriculum implementation must consider the context of the place, its leadership and environment as well as its students and teachers. All these should be taken into account. Attention should be paid to adequate resourcing, management of implementation time frames and frequent monitoring and evaluation. Curriculum designers always focus on the curriculum's desired results while neglecting how the curriculum would be implemented, hence overlooking major challenges that are revealed in the curriculum change.

According to his observation, Button, (2021) concedes that research findings indicate that there is need to identify factors that affect the implementation. This scholar proposed approaches that can be used to understanding the challenges concerning the implementation process. He identified collaborative factors that affect implementation. Firstly, he identified change as a factor. He argues that the extent to which change is required, no matter how strong, multifaceted and practical change may be, it contributes

significantly on whether the implementation process is successful or not. Secondly, he identified the district, community, principals, and teachers as local factor characteristics that are involved in the change process.

Moreover, in his observations, Button, (2021) discovered that the community, district school board, and principals' support were other determinants that affected implementation. Teachers in particular, played a significant role in promoting innovation, in fact, their perceptions and roles in implementation were obligatory. The role of educational agencies and the government also had an effect on the implementation of the curriculum. However, the Chinese situation has demonstrated some differences in the ideological beliefs and values, social structure, education system, from those of the rest of the world. This means that other factors that have been identified as important in other countries might not necessarily apply to the context of this study in Eswatini.

Therefore, from the review of literature on the factors that affect implementation in relation to the context of this current study, the researcher presents these factors in a meaningful way, by discussing them under the themes that emerge from literature, in which various types of factors are discussed. Factors that have been identified and discussed may not be the only that affect implementation. However, they are the most relevant to the study in the context of Eswatini. Hence, from the review of literature on factors affecting implementation, the researcher has grouped the factors affecting teaching and learning in the curriculum implementation into three categories: teacher related, system related, and school related. The teacher related factors include: lack of understanding and ownership of the innovation, change not in line with the teacher's beliefs and values, negative attitudes, teachers focusing on current practices, and change that poses personal threats to teachers. System related obstacles include: trust and communication between implementers and change agents, focusing most on the innovation than on how it should be implemented, lack of resources to support the innovation, inadequate development and support for teachers, failure to deal with the gap that exist between reality and rhetoric, previous innovation failures, failure to align the innovation with examination requirements. Finally, school related challenges are: lack of culture that support change, conservatives in the school, lack of management support and

understanding, student challenges in adapting to change as well as inadequate resources at school.

So far, published identified four Erarslan, (2019) external factors that affect the implementation of a curriculum, in which various kinds of factors are discussed. These are testing, textbooks, teacher training and resources. Even though one acknowledges the indispensable roles played by these factors in curriculum implementation, it is worth noting that there are other factors recognized in the literature that are equally important. Identified factors are not the only ones affecting implementation but they are more relevant to the study in the context of Eswatini. The factors that affect the implementation can be classified into external and internal. External factors occur outside the classroom such as cultural, structural, or organizational features. Learners and teachers have minimal control over them. On the other hand, internal factors are related to learners and teachers in the classroom. Teachers play a major role in the implementation of any curriculum. They are the ones who determine whether the new curriculum is successfully implemented in class in line with the intentions of policy makers.

3.9.4.1 External Factors Affecting Curriculum Implementation and Geography curriculum implementation

This part addresses the four themes concerning external factors that affect curriculum implementation, namely testing, teacher training, textbooks and resources.

3.9.4.1.1 Testing

The influence of examinations and tests have a significant influence on how teaching and learning are conducted in class. Like many countries in the region, Eswatini is known as a country that stresses the importance of examinations at all levels of education. This is one of the many reasons why the researcher would like to investigate the influence of testing in relation to Eswatini to clarify how, what and why tests have a bearing on teaching.

Mackatiani, (2017) concurs that tests can be influential factors in an equally positive and negative way regarding what takes place in the classrooms. Tests drive learners into

doing activities they would not do if it was not for the tests. Many researchers believe that testing has both negative and positive feedback occurrences on teaching and learning. Ideally, tests are supposed to motivate learners because they test achievement and everyone would like to perform well hence they would work hard for assessments.

Tsang, & Isaacs, (2021) conducted a study on the washback impact associated with changes in the Hong Kong Certificate of Education Examinations. Findings of their study revealed that the Hong Kong education system responded fast to the task based and integrated approach to teaching and learning, during which changes in teaching materials took place. However, the washback process happened gradually with no essential changes of teaching methods. She concluded that examinations can change the content of teaching in class but not methodologically. They further stated that for sincere change in classroom teaching and learning, there must be cooperation in terms of materials development, teacher support and education.

3.9.4.1.2 Textbooks

Textbooks play a vital role in the teaching and learning process and their contribution can never be underestimated. In the context of Eswatini, many textbooks used in classrooms are a reflection of the curriculum. They reflect the syllabus and direct what teachers should teach in class. Teachers teach and assess learners according to the content of the text book. Therefore, textbooks are very essential. In order to come up with the objectives of a program and the content to be studied by the learners as well the expectations of teaching and learning expressed by the course, the textbook is the best reference necessary used in the program itself.

Textbooks have a positive influence on teachers and their teaching throughout curriculum implementation. This is because teachers save time by using textbooks and this s from the fact that they relieve pressure off teachers from having to do research using other sources. Ayu & Indrawati, (2019) reported that teachers admitted that textbooks save time, direct and guide lesson discussions, and make it easy to give homework. They stated that a textbook does not only become a guide to the teachers when delivering the materials, but also presents necessary contribution through numerous clarifications and

activities. This makes teaching better organised and convenient, and it makes learning faster and easier. Textbooks and teachers' guides play a major role in boosting confidence especially for teachers who lack experience as they can function as teaching manuals.

Even though textbooks are considered very helpful, they are however criticized for obstructing teacher development. This is because teachers may believe that decisions made in the textbook are superior, and more valid than decisions made by themselves. They make them believe that intelligent and upright people produced the textbooks and they knew it all. If teaching decisions are broadly based on the text book, it might result in the decrease on the level of cognitive skills involved in teaching. Mili & Winch, (2019) however argue that the review of research on textbook use revealed that the effective use of textbooks depends on the experience of teachers and content of the subject being taught.

3.9.4.1.3 Teacher Training

According to Mogashoa (2022), in order to successfully implement any curriculum innovation, it is vital to offer professional development and in-service training for teachers so that they can be competent in designing lesson plans, effective teaching and assessment methods. This is because if teachers are not capacitated, there can be no curriculum development. Kayange & Msiska (2016), after reviewing numerous research studies that were carried out to find out the importance of in-service training in helping teachers to implement the innovated curriculum, concluded that in-service training was a factor in curriculum development in seven studies. These studies showed that teachers who were given in-service training were effective in the implementation than their counterparts. This is because professional development strives for facilitating teachers' growth and understanding of teaching and themselves.

Like any other teachers, Geography teachers need to be developed professionally in order to get the latest information especially on teaching methodology. This encourages and revives teachers in their teaching profession. Pharis, Wu, Sulliva & Moore (2019), assess that professional development removes deficiencies and keep teachers well-

informed on new practices and knowledge in the education field. Teachers need to develop flexibility for investigation and innovation in class to become adaptive specialists.

In relation to this, teachers' ongoing training can have a direct influence on the academic performance of learners. Kayange & Msiska (2016), observed that teachers who were given in-service training and/or external workshops improved meaningfully in their capabilities to use learner – centred teaching strategies. This is mainly because this leads to improved understanding of pedagogical issues for a significant number of Geography teachers.

In-service and pre-service teacher education should assist teachers to develop teaching approaches and skills that take into account new understandings of how students learn. An objective curriculum and instructional methods should be relevant and learner – centred. Teaching and learning instructions should assist learners to build on previous knowledge to develop beliefs, attitudes and cognitive skills that would increase their base of knowledge. However, in several places, teaching styles used in some classrooms remain teacher – centred and authoritative.

According to Cho, Lim, & Hwang (2021), when teachers in Ethiopia were interviewed about the extent to which their teaching was learner – centred and relevant to the lives of students, half of them said that they linked their lessons to pupils' daily lives at least once a week. Nearly two-thirds, nonetheless, said that they rarely asked learners what they would like to learn. This means that the particular learners depended entirely on their teachers. This type of teaching and learning method is not encouraged. Teachers should use teaching methods that promote active learning and not use methods that promote passivity and rote learning by memorisation.

3.9.4.1.4 Resource Support

Njuki (2018) pointed out that resource support in terms of material, human and financial has been considered essential in ensuring the successful implementation of an innovation. For change to take place especially in the education sector, there is always a need for resources. Erarslan (2019), further considers teaching material as an important resource in the advancement of innovation. Material support can always assist to lessen

the amount of work connected to the innovation, and specifically, give crucial support to teachers who have weak subject content knowledge and those who lack experience.

Out of all these factors, the support of teachers through training is considered a major role towards the smooth implementation of innovations. Lack of in-service training support and funding are perceived as blockades to implementation of innovations. Therefore, it is very important that human support from other teachers and principals are increased.

3.9.4.2 Internal Factors Affecting Curriculum Implementation

From the literature review, four themes were discovered. They include beliefs of teachers and decision making in innovation, attitudes of teachers towards innovation, knowledge of teachers and understanding, involvement of teachers and their participation in the innovation that result in the ownership of the innovation (Okoth, 2016). Nonetheless, the aforementioned are not the only internal factors that emerged from the literature. Other internal factors also emerged and these are experience and age of teachers as well as their learning backgrounds Erarslan (2019), personal concerns of teacher, their perceived support for change, mitigation of reservations and uncertainties related to the change and participation time for teachers to get prepared for change. These factors are acknowledged but are not further discussed.

3.9.4.2 .1 Teachers' Beliefs and Decision-Making in Innovation

Baptista, Freire & Freire (2020), state that the beliefs of teachers' regarding teaching affect how they think and act and as such influence their curricular decisions and how they interpret innovative ideas. In general, a newly introduced curriculum has consequences in a teacher's world in a number of new concepts about the curriculum and teaching. Conflict usually produces uncertainty. There is a strong relationship between educational beliefs of teachers and their instructional decisions, planning and their practices in class. Pre-service teachers' educational beliefs play a fundamental role in their acquisition and interpretation of knowledge, and subsequently their teaching behaviour. There is a relationship between the beliefs of teachers and their practices in

class. That is why the beliefs and practices of teachers in a classroom are influenced by contextual practices.

Logically, implementation requires changes and reforms in teachers' belief systems in materials, teaching approaches, and finally their beliefs. Unlike changes in materials and teaching methods, changes in beliefs is time-consuming and difficult. Bonner, Diehl, & Trachtman (2020) observed that the way how teachers think, coupled with their beliefs and theories, influence what they do in their classrooms. A change in the attitude of teachers towards innovation is essential in the promotion of successful implementation of the curriculum in the classroom. Janík, Janko, Pešková, Knecht & Spurná (2018), also pointed out that attitudes of teachers are primarily derived from their professional training, their interaction with colleagues, their own experiences as learners, as well as the norms and cultural values of their societies. Therefore, social context and several interlocking characteristics determine whether teachers' attitudes change or not.

Even though attitudes of teachers are fundamental in making sure that innovation succeeds, they are usually resistant to change. Neri, Lozano & Gomez (2019), argued that if the innovation is not compatible with the attitudes of teachers, barriers to change are likely to occur. They believe that for change to be implemented, there are variables to be considered. These variables are: teachers' personal cost judgements of the change, practical implications of the new education in the classroom, fear and uncertainty alleviation, expectations concerning the importance of change and significant elements, role of the school and perceived support for teachers. In their argument, they contended that attitudes on education strongly affect whether teachers are receptive to the change in the implementation stage or not.

Many researchers have conducted a number of experiential studies to demonstrate teachers' attitudes towards curriculum change and implementation. A study conducted in Hong Kong by Lau, Jong, Cheng & Chu (2020) investigated teachers' concerns, attitudes as well as learners' performance about an innovation called STEM. From the results, it was gathered that teachers who were given in – service training presented some attitude changes at the end of training, although the change was insignificant statistically. Although not different, the results suggest that indeed attitudes can lead to resistance to

change. The authors recommended that teacher training should make a thorough effort to change attitudes of teachers and that curriculum developers should be aware of the consistency of teachers' attitudes in societies in order to formulate an efficient curriculum within those attitudes than changing them completely.

Another study was conducted in the Czech Republic by Janík, Janko, Pešková, Knecht, & Spurná (2018) and investigated teachers' attitudes towards curriculum reform implementation. They found that there was a great variation in level of teachers' support for change. This inconsistency was connected to teachers' knowledge about change and participation in it. There was a positive relationship between teachers' participation and their attitudes. Of all these variables, participation stood out as the most significant, followed by attitudes and knowledge. They discovered that teacher, subject and school were the three situation variables that needed further research. Their study showed that when implementing educational change, independent variables are more influential in revealing attitudes of teachers. Teacher participation in the innovation turned out to be a dominant factor in their support for change.

On the other hand, Okoth (2016), revealed that teachers' involvement in curriculum planning have positive attitudes towards curriculum implementation than those who had to denote programmes for which they have no control over. They anticipated training can be used to change attitudes of teachers. However, they were aware of the fact that, some attitudes are more resistant to change than others. The findings emphasized that, experienced teachers often have negative attitudes towards the new approaches. Therefore, there is a need for in-service training to target experienced teachers than newly qualified teachers.

3.9.4.2 2Teachers' Understanding and Ownership of Innovation

From published literature, one could tell that the major blockade to the implementation of any new curriculum is teachers' lack of understanding of the curriculum innovation. Okoth (2016) attest that people usually misunderstand and misinterpret certain aspects of educational change. For an innovated curriculum to be effectively and successfully implemented, teachers should fully understand the ideologies and practices behind the

projected change. This means that teachers need to understand theoretical foundations of the innovation and how it is practiced in class.

Teachers' understanding and ownership of an innovation is very essential especially in curriculum policy and its implementation. Ownership exerts a significant influence on whether an innovation is really effected and not merely left unimplemented. It is very crucial to always create ownership for change by the teachers to be effective. Mendieta, & Barkhuizen (2020) states that as implementers of curriculum innovations, teachers should be given the responsibility for decision making as this encourages ownership. Basically, it is imperative that everyone feel that they have contributed to the formulation of the innovation.

From the literature review, factors affecting implementation of a curriculum were found both to be external and internal. These acted as a guide to this study's investigation and formed the conceptual framework of factors influencing implementation in the context of Eswatini which assisted in the design of the research instruments. The characteristics to these factors were examined on teachers' perceptions on the need for understanding, complexity and innovation practicality since understanding of the innovation by teachers is of paramount importance. Moreover, factors influencing curriculum implementation were also incorporated into the framework. For example, based on the internal and external factors, in – service training, resources, testing, and textbooks were classified as external factors, and attitudes of teachers, understanding of the innovation, and ownership of innovation were put under internal factors. The conceptual framework below (Figure 3.1) demonstrates the relationship between the key concepts of the study. According to Garira (2020), a conceptual framework is a graphical or diagrammatical relationship which forms the basis for learning or argument that is used in research to explain the key concepts.

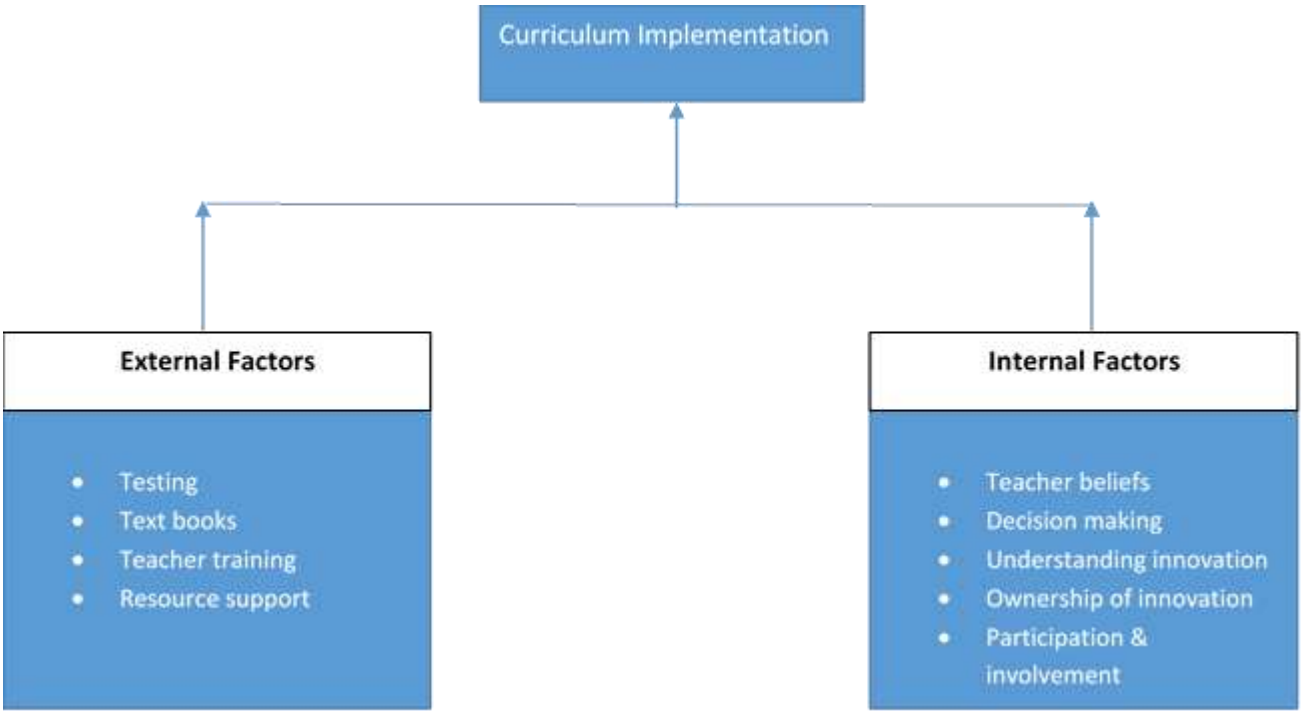

Figure 3.1: Conceptual framework of factors affecting curriculum implementation

Source: Developed by the researcher from the literature.

3.10 CHAPTER SUMMARY AND IMPLICATIONS FOR EMPIRICAL STUDY

The literature review in this chapter has focused on research concepts. It discussed and analysed some selected literature relevant to this study. The explored concepts are conceptions of curriculum, curriculum policy and institutional set up for curriculum development in Eswatini, philosophical foundations of curriculum, trends in curriculum review and change, institutions that play the main role in curriculum and the implementation process as well as factors influencing the implementation of a curriculum. Internal and external factors were found to be influencing curriculum implementation. Of these factors, a conceptual framework of factors influencing implementation in the context of Eswatini was formed, which assisted in the design of the research instruments. The subsequent chapter will discuss the study's research methodology.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

According to Creswell & Poth (2016) research involves these phases: asking questions to gather empirical evidence, generating and presenting answers to the questions. Basically, it concerns the process of generating information and analysing its meaning. Research methodology refers to a planned way of collecting information to answer research questions (Abutabenjeh & Jaradat 2018). However, research methods must be consistent with a predefined research strategy (Goodell, Stage & Cooke 2016).

This chapter comprises of the research paradigm, design, and data generation as well as data analysis methods. Furthermore, concerns of objectivity in research are discussed to ensure that factors that affect trustworthiness are deliberated. It concludes with ethical questions that were considered before data was collected. Consequently, in this chapter, focus is based on contextual engagements with the participants and the decisions made concerning the data interpretation and production.

The numerous steps that the researcher implemented are discussed and explained in this chapter. The data collection strategies and their selection would be justified in this section. Moreover, sampling techniques are discussed and issues of trustworthiness addressed.

4.2 Main research question

The study's main research question was: What are the changes in the way that Geography is taught in Eswatini and how have Geography teachers who teach the subject adapted and implemented to them? Therefore, the main question is how teachers teach a changed curriculum?

4.2.1 Sub -research questions are as follows:

1. What are changes that have occurred in the Geography curriculum?
2. What kind of support was given to the teachers to equip them for the new curriculum?
3. How have the changes been implemented?
4. What challenges are encountered in implementing the new curriculum?
5. Is there a difference in performance of students in the different curricula?

These questions were used to get a comprehensive understanding of the phenomenon, for that reason a qualitative approach and a case study were selected to observe the participants in their natural setting.

4.3 RESEARCH DESIGN

According to Akhtar (2016) a research design is a plan and outline for data collection and analysis. It is a conceptual structure that is used to conduct research. Thus, this section presents the design of the study, research paradigm, research approach, methods, strategies and procedure of data collection, population, sampling strategies as well as data analysis and interpretation.

The researcher decided to use a case study. According to Hancock, Algozzine & Lim (2021) a case study is a detailed description of a limited system. An example of this would be a limited phenomenon such as a programme, an event or a person. A case study is suitable for answering “how” and “why‟ questions (Goodrick, 2020). Hancock et al. (2021) argue that a case study involves constructions through an interactive dialogue between the researcher and the participants. Conversely, Beach & Pedersen, (2016) further clarifies this point by arguing that a case study can be considered as an in-depth interaction of a particular entity in a closed system.

A research design explains how and where information was collected and analysed. It covers how the data was collected, describes instruments were used, how the

instruments were used and what means were used to analyse the data collected (Creswell, 2016). Cresswell (2016) further argues that a research design is a specific qualitative and quantitative process that is integrated into the last three phases of research procedures, these phases involve: data gathering, analysis, and reporting. In other words, the research design formulates the type of data needed, and the methods employed to gather and analyse that data to answer research questions. Moreover, Edmonds & Kennedy (2016) say that a research design is a descriptive method used to answer the study's questions.

The approach used to conduct a research approaches influence its designs. For quantitative research, the approaches that are used include descriptive, correlative or associative, ex-post-facto, quasi-experimental, and real experimental designs. Of these approaches, Pandey & Pandey 2021) note that the descriptive gives information about situations and events that take place in the present. Conversely, Koo & Li (2016) attest that correlation studies compare two or more different characteristics of the same group of people. In addition, Glaze (2021) states that ex-post-facto studies are retrospective as they seek to determine the cause of an existing disease and the researcher has no control over the exogenous variables. Gopalan, Rosinger & Ahn (2020) believe that quasi-experimental design involves the use of a natural social environment in which researchers can introduce something like an experimental design. Lastly, Rogers & Revesz (2020) describe the experimental quantitative design as characterized by manipulation, control, and random assignment.

Qualitative research approaches use phenomenological, ethnographic, case study and historical design as well as narrative analysis and the Grounded Theory (Padgett, 2017). Alase, (2017) further states that phenomenological design means that the researcher explores the lived experiences of individuals through the phenomenon that they describe. Rashid, Hodgson & Luig (2019) on the other hand refer to ethnographic designs as events that take place in the life of a group with specific reference to the interaction of group members in the context of their socio-cultural norms and beliefs. (Thornberg & Dunne (2019) state that the Grounded Theory refers to the development of theories to explain phenomena. These theories emerge from data rather than from a predetermined theory.

Moreover, it is eminent that a case study is an analysis that focuses primarily on exploring the unique quality of the phenomenon being studied. Finally, Thomas, Martin, Etnier & Silverman (2022) posit that historical research is a systematic, objective evaluation and synthesis of evidence to identify facts and come up with conclusions pertaining to past events.

Lastly, Subedi, (2016) states that the mixed methods approach uses convergent parallel, explanatory sequential, exploratory, sequential, and embedded research designs. Farquhar, Michels & Robson, (2020) explain that convergent parallel design predicts performing the qualitative and quantitative strands separately but simultaneously bringing them together at the point of interpretation. On the other hand, explanatory sequential approaches are adopted when the researcher wants to use qualitative results to help understand quantitative results. Basically, such researcher begins by gathering and analysing quantitative data and then gathers and analyses qualitative data as a follow up to qualitative results. The researcher then combines the phases with the quantitative results for the design of the qualitative research questions (Almeida, 2018). Likewise, in explorative sequential design, the researcher first gathers and analyses qualitative data, followed by quantitative data. Therefore, the analysed qualitative data is then used to build up the subsequent quantitative phase (Schreier, 2020). The embedded research design encompasses performing a qualitative or quantitative study with the researcher embedding a smaller portion of the other method as an extension.

Consequently, this study used the qualitative approach because the research questions require teachers' views in the implementation of geography curriculum in schools which requires to be studied in-depth. According to Nicholls (2017), in a qualitative research process, the researcher becomes an active participant. In this study, the researcher actively interacted with the participants and became part of the research process. The teachers have to express their views in order for them to be understood, thus in the case of studies on Geography curriculum, expressing views enables a researcher to understand their views in the implementation of Geography curriculum in schools. A qualitative research approach provides rich descriptive data due to detailed interaction

that the researcher engages in with participants. This approach is also suitable for studies similar to this because it could give a detailed explanation of how teachers implement the Geography curriculum. For this research, the researcher described the teachers' practices in order to answer that question.

4.3.1 RESEARCH PARADIGM

Malaina, (2019) asserts that a paradigm is a view about the world, that is, a perspective about the complexity of the world. On the other hand, Rahi (2017) defines a paradigm as "a set of beliefs and assumptions about the reality's fundamental aspects that lead to a certain worldview". Moreover, Maarouf (2019) believe that a paradigm is a philosophical intention to conduct a study. Every researcher's view of the world represents philosophical underpinnings of his or her own research paradigm. These assumptions inform the choice of research strategy and methods chosen within this strategy.

Similarly, Kivunja & Kuyini (2017) define a research paradigm as "a set of fundamental beliefs and assumptions on how the world is perceived". This then serves as a thinking framework that guides the researcher's behaviour. This means that understanding research paradigm is imperative since it guides the researcher's thinking and reflects how the research project data is collected and analysed.

This means that there are diverse approaches of conducting research. These are mainly dependent on the researcher's objectives for undertaking a particular study. Social scientists explore the beliefs, perceptions and attitudes of people, which are usually uncontrollable. Interpreters of the different approaches think that the world can be changed and that people construct and define the meaning of a certain phenomenon or situation. Moreover, techniques that are used to generate qualitative data can be used to explore these constructions and meanings. This means therefore that the researcher has to choose an approach that best suits the study and helps guide their actions and beliefs. This study adopted the interpretive paradigm to understand the world and knowledge including to understand the behaviour of the participants. The interpretive paradigm

presented an insight on the teachers' views on the implementation of the curriculum as well as their use of pedagogy in the teaching of Geography. Kivunja & Kuyini (2017) further argue that any interpretive research is directed by perspectives and feelings of the researcher about the world and how they should be studied and understood. On the other hand, Oevermann, Allert, Konau & Krambeck (2021) argue that the interpretive ideology takes into account that social meaning arises when interacting with participants.

In this study, the researcher interacted with Geography teachers as they conducted lessons with an intention to observe how they used pedagogical knowledge in their teaching. Valid knowledge claims can emerge as contradictory interpretations and possibilities are discussed. This refers to asking questions in interviews, evaluating reactions from participants and then interpreting these. For these reasons, this research followed a qualitative approach.

Interpretivists argue that it is important to have dialogue and interact with participants in order to understand the social world of people based on their experiences and subjective meanings this enables the researcher to generate data which provides rich descriptions of social constructs (Mohajan 2018).

4.3.2 RESEARCH APPROACH

This study employed a qualitative research approach. According to Chai, Gao, Chen, Duangthip, Lo & Chu (2021) qualitative research uses nonnumeric data that ought to be collected in natural settings through observations and interviews. Such allows for interpretation of the phenomena and the discovery of its meaning. Therefore, this researcher found qualitative research to be appropriate for this study in that nonnumeric data was collected through extensive participant observations and face-to-face interviews. Documents which aid in the implementation of the curriculum were analysed in order to supplement data collected from interviews. These documents included text books, lesson plans and marked test scripts. According to Creswell (2016), qualitative research has different designs namely interviews, direct observation, analysis of

documents and recorded videos with speeches. However, this research used a case study design that takes a descriptive approach.

Therefore, to get in-depth description and understand the phenomena from participants' experiences in their natural setting, a qualitative approach is suitable, and data collection strategies and analysis procedures are aligned to this approach so that research questions could be answered (Alase, 2017). A qualitative method was used to collect data from teachers through interviews. Firsthand information was collected through observations and evidence from official documents. Collected data was analysed through narration.

4.3.3 RESEARCH METHODS (MEASURES, PROCEDURES AND TOOLS TO GATHER AND ANALYSE DATA)

Research involves carrying out a number of phases in which information is collected and analysed to extend the reader's understanding of the problem. According to Creswell (2016), it involves three phases: asking questions to gather empirical evidence, generating answers to the questions, and presenting generated answers. This part of the research presents the criteria for the selection of participating schools and participants, data gathering and analysis techniques.

4.3.4 SELECTION OF PARTICIPANTS

Etikan, Musa & Alkassim (2016) define population as the total quantity of the things or cases which are the subject of our research. Queirós, Faria & Almeida (2017) state that qualitative research studies produce in-depth small samples of people in their context. The study targeted three specialists of Geography from three public schools in the Manzini region of Eswatini, who taught the subject at senior secondary level. These schools were School A from semi-urban area, School B from urban area and the School C from a rural area. Geography teachers were targeted to be part of this study because they are the primary implementers of the curriculum. Public schools were used because a majority of Swazi learners attended public schools and these are government-owned schools. The researcher deliberately selected the participants because they were rich in the information required by the study as Etikan et al. (2016) refers to this sampling

procedure as purposive sampling. It is also called judgment sampling which refers to the deliberate choice of a participant due to the qualities the participant possesses. Such participants are characterized as possessing rich information and are consulted or interviewed in order to have an in-depth enquiry on a particular topic being researched. In this case, these selected Geography teachers were those who have taught both the old and the new geography syllabus.

4.4 INSTRUMENTATION AND DATA COLLECTION METHODS

Data collection is essential in all research studies largely because conclusions of a study are based on what the data would have revealed. Babbie (2016) states that the kind of data to be collected and methods to be used to collect it need to be carefully selected. In this research study, a qualitative approach was used to collect and analyse the data. In qualitative research, the characteristics and properties of a phenomenon are examined in order to understand and explain it better (Creswell 2016). According to Babbie (2016:88:89), qualitative research uses exploration, description and explanations. Triangulation is the use of different instruments of data collection (Babbie 2016).

4.4.1 INTERVIEWS

Various types of interviews that are used in research studies, the semi-structured is widely used in educational research that involves human beings as subjects. As expected, it was used to gather data from the selected Geography teachers regarding the appropriateness of the teaching methods in the subject's syllabus. Through interviewing the teachers, the research assessed if they used learner-centred approaches to learning. An evaluation on an inventory of resources that were available to aid the teaching of Geography was conducted as well as teaching methods used by Geography teachers. The interest and awareness of Geography teachers to make use of the student-centred approach, the utilisation of teaching and learning media by teachers, the interest of students to be taught through the student-centred approach and the alignment of education policies with real practice was of great interest to the researcher. Babbie (2016) asserts that semi-

structured interviews are suitable for uncovering meaningful structures that participants make use of to organise their experiences to make sense of their world.

4.4.2 OBSERVATION

Observation is another data method that was used to collect data about the alignment of education policy and actual practice in Geography education, the availability of resources in schools, teaching and learning methods and media used by Geography teachers and the rate of learner participation. Through observation, the researcher observed interactions between teachers and earners during Geography lessons, facilities that were available in the library, Geography rooms and its facilities, as well as text book distribution and pedagogical centre with its Geography resources in their natural setting.

Observation was important in this study. It provided a far more direct path to obtaining information from its natural setting. For instance, information about learners' and teachers' behaviour during the teaching and learning process. Lune & Berg (2017) state that regardless extensive use of interviews to evaluate the levels of educational practices, direct observation is the most suitable way as people can reliably observe and describe it. Rashid et al (2019) also argue that observations give first-hand information about the phenomenon under study, which is rich contextual data and enhance our understanding of the culture or sub-culture being studied. When combined with document analysis and interviews, it shows a holistic interpretation of the phenomenon under investigation.

4.4.3 DOCUMENT ANALYSIS

The researcher analysed documents of the curriculum, syllabi, examination reports, lesson plans, teachers' preparation books, learners' work books, and other resources that were available to teach Geography. The researcher compared the different syllabuses in order to identify possible changes in terms of the aims, teaching and assessment objectives. Results from the Examination Council of Eswatini (ECESWA) that were issued before and after the introduction of the new Geography curriculum were analysed to

identify the learners' performance in external national examination results in order to understand the academic status of learners against national standards.

4.5 DATA ANALYSIS AND INTERPRETATION

Becker (2017) states that the process of data analysis occurs during the data collection stage and goes on until the final research report is compiled and finalized so that final comprehensive analyses may not wait until the field work is completed. Babbie (2016:378) argues that during the data collection process of a qualitative study, analysis and theory are intertwined. Marshall and Rossman (2017) contend that in a qualitative research, researchers use general statements, themes and patterns as well as concepts for the purposes of making generalisations.

In qualitative research, data is inductively analysed moving from specific to general, from specific observations to the discovery of patterns that represent the degree of order among given events (Babbie 2016:51). In this study, qualitative data was coded and transcribed.

Data collected during the course of this study was analysed using the grounded theory. Memos were written where the findings were categorised into themes, analysed and compared in order to determine emerging patterns and to triangulate the data. Individual participants' extracts were categorized according to headings specifying expressed opinions and coded according to emerging aspects and research themes.

4.6 MEASURES FOR TRUSTWORTHINESS

Since this study used a qualitative approach, trustworthiness was sought rather than validity and reliability. In qualitative research, researchers should consider the criteria for a trusted study namely credibility, neutrality and reliability. According to Korstjens & Moser (2018), the quality criteria for all qualitative research are credibility, transferability, dependability, and confirmability.

Kalu & Bwalya (2017) assert that credibility refers to how the researcher attempts to demonstrate that the study presents a true picture of the phenomenon being investigated. They further attest to that credibility observes how participants project their views on what

they consider to be social constructs. In this study, credibility was enhanced by piloting before the actual data is collected. Additionally, the use of the triangulation principle whereby various tools such as interviews, lesson observation and document analysis were carried out to collect more data and make up for the limitations of each method.

Credibility ensures that results generated through a study are reasonable especially if the researcher tries to remove all prejudices and errors Denscombe (2017). Therefore, in addition to triangulation, to further ensure credibility of the research methods and subsequent findings in this study, the researcher employed verbatim accounts of conversation transcripts and direct quotations in reporting after a prolonged engagement with the participants. This process is whereby the exact words of participants are used in reporting the findings so as to help the reader experience the real setting of the participants to enhance credibility. The researcher recorded the participants' conversations to assist in avoiding misinterpretation of their views. Therefore, carefully listened to the participants and presented their views as they were and not her own ideas about the topic under study.

4.7 ETHICAL CONSIDERATIONS

According to Maree (2016:41), ethics deal with how participants ought to be treated in research and how data should be collected and handled. The researcher waited for ethical clearance approval from the UNISA before the commencement of data collection. This approval was later granted (see Appendix K). Also, the researcher wrote letters of information to the participants asking for permission to interview them. The aim of the study and data collection procedure were explained to the participants and they were guaranteed anonymity. Their identity was not revealed in all records and reports. Participants were assured that the outcome of the investigation would be made known to them in the form of a hard copy of the thesis.

At the interview phase, the interviewer explained the objectives of research to the study participants and this was aimed at obtaining their informed consent. Furthermore, she explained to participants that participation in the study was voluntary and that they could stop their participation at any time if they wanted to.

The interviews and observations pertaining to this study were carried out during the outbreak of the Covid-19. In order to ensure safety of the participants and the researcher from Covid-19, the researcher ensured full compliance with the global and national regulations, guidelines and protocols in the collection of data during this current global pandemic. Some of the regulations observed in this study involved enforcing social distancing, wearing of face masks, sanitization of hands, and observations carried out in ventilated classrooms and/or laboratories. Also, the exchange of papers with participants was avoided by using electronic means to facilitate the consent process and data collection. For example, permission letters and consent forms were emailed to those concerned and participants. However, where the use of electronic means was impossible, and the need to use paper was strongly justified such as during document analysis such as lesson plans, the researcher used precautionary measures for example. The precautionary measure involved the researcher asking for copies of these documents and putting them in an A4 size envelope for a period of seven days before their use in order to reduce the risk of contagion when collecting data in the circumstances. This was because, the novel coronavirus can reside on paper for two to three days (with some estimates indicating up to five days). Since the researcher undertook research activities in close proximity to the participants, she provided a Covid-19 research toolkit when interacting with participants.

Study participants were ensured of confidentiality with regard to their responses. All participants signed informed consent forms. Finally, the study ensured privacy and confidentiality of participants and records accessed during the study. The data captured for the study was accessible to the researcher only and used for the purpose of the study only.

4.8 CHAPTER SUMMARY

Chapter four presented research paradigm, research design and data collection instruments. It also outlined the data collection procedures, data presentation and analysis methods. The study employed qualitative research design to gather relevant data

from Geography teachers through interviews in addition to observation and document analysis. Moreover, the different activities in the data collection procedure were explained. Furthermore, this chapter deliberated on the ethical considerations of the study. To ensure safety of the participants and researcher from Covid-19, the researcher ensured full compliance with the global and national regulations, guidelines and protocols in the collection of data during this current global pandemic. Attached are appendices for the ethical clearance certificate, data collection instruments as well as permission letters. The next chapter presents the results of the study.

CHAPTER 5

RESEARCH FINDINGS, DATA ANALYSIS AND INTERPRETATION

5.0 INTRODUCTION

Chapter four outlined a comprehensive discussion of the qualitative research method and described the research design and methodology adopted in this study. Approaches that were adopted for the collection of data in qualitative research were also discussed in this chapter along how participant interviews, observation and document analysis were carried out. The choice of participants, data gathering, presentation, analysis, as well as issues of reliability and validity in this study have been discussed in chapter four. Furthermore, ethical considerations in order to ensure confidentiality of the participants was also covered.

This chapter presents the research findings from the interviews held with the selected teachers who taught Geography, observations of lessons and teaching materials and analysis of documents of the educators, as described in chapter four. The findings of the study are qualitatively presented in line with the five objectives of the study. Mezmir, (2020:15) holds the view that qualitative data analysis is concerned with transforming raw data by searching, evaluating, recognizing, coding, mapping, exploring and describing patterns, trends, themes and categories in the raw data, in order to interpret them and provide their underlying meanings. Moreover, Byrne, (2022) points out that there is no particular way of analysing qualitative data and presenting it, but the researcher uses his or her own discretion in relation to his or her own research to determine the type of analysis to be carried out in order to describe, interpret, explore and so on. In this study, data analysis tried to give a detailed understanding of curriculum changes and implementation in Eswatini, and how Geography was taught in secondary schools**.**

In order to do this successfully, the main research questions were re-stated as a background to the presentation of the findings. The data revealed the perceptions of Geography teachers on how the curriculum was implemented in schools as they were the

primary implementers of the curriculum. In particular, it showed the changes after the SGCSE curriculum was introduced as part of the fulfilment of a process that began long before independence to make the curriculum relevant to the needs of the people of the Kingdom of Eswatini. Therefore, this chapter is divided into two sections namely data generated and data analysis and interpretation.

The analysis is motivated by all the following research questions:

1. What are the changes that have occurred in the Geography curriculum?
2. What kind of support was given to the teachers to equip them for the new curriculum?
3. How have the changes been implemented?
4. What challenges are encountered in implementing the new curriculum?
5. Is there a difference in performance of students in the different curricula?

5.1 DATA GENERATED IN THIS STUDY

In this study, data generated is presented in separate sections according to the data collection methods employed namely document analysis, observation and interviews corresponding to the five research questions (see 1.4.1). Before the commencement of data collection, the researcher made a prior visit to each of the selected schools and asked for permission to interview the participants and observe them during lesson presentations. The researcher explained the purpose of the study and the participants needed for the study were identified (see 4.2.4). Participants were assured of confidentiality of information and anonymity of interviews in addition to their right to withdraw their involvement if necessary. This was done so as to ensure that respondents were guaranteed anonymity in that their identity would not be revealed in all records and reports when participating in the study (see 4.6).

5.2 DATA FROM DOCUMENT ANALYSIS

This section presents the findings generated through document analysis, which focuses on the different syllabi policy documents namely GCE, IGCSE and EGCSE, examination reports, as well as lesson plans. The data which were collected through analysis of documents are presented in the tables below according to documents analysed in line with the research questions. Findings from the document analysis were categorised into themes and analysed in order to identify differences in the different syllabi and what was happening on the ground in terms of lesson planning. These data were compared as scholars always encourage that the researcher working always compare data from multiple sources in order to determine if there are emerging patterns, and in order to triangulate the data. Therefore, this sub-section deliberates on the themes that developed from the documents analysed.

5.2.1 CHANGES IN THE GCE, IGCSE, AND EGCSE SYLLABI

5.2.1.1 Research study question 1

One of the objectives of this study was to identify the changes that had occurred in the Geography curriculum (see1.4.1). To determine this, research question one was used. (see 1.4.2).

Question: What are the changes that have occurred in the geography curriculum?

5.2.1.2 CHANGES IN THE AIMS OF THE GCE, IGCSE, AND EGCSE SYLLABI

Table 5.1 below presents the results of the GCE, IGCSE and SGCSE/EGCSE compared to identify the changes in the aims that have occurred.

Table 5.1: Comparison of the aims of the GCE, IGCSE and SGCSE/EGCSE syllabi

GCE (O' level)	IGCSE	EGCSE
1. Knowledge and understanding of the basic geographical character of the locality in which he/she lives.	1. Develop a sense of place and an understanding of relative location on a local, regional and global scale.	1. To develop a sense of place and an understanding of relative location on a local, regional and global scale.
2. Knowledge and understanding of the systematic geography of the 'home' area as a part of a more general study of the wider region of which the 'home' area forms a part.	2. Develop an awareness of the characteristics and distribution of a selection of contrasting physical and human environments.	2. To acquire knowledge and understanding of the language, concepts and systems fundamental to the study to physical and human geography.
3. Knowledge and understanding of major problems of a geographical nature arising from the relationship of people with their environment	3. Develop understanding of some of the processes affecting the development of such environments.	3. To develop an awareness of the spatial distribution of phenomenon on the earth's surface and the relationships among the dynamic nature of such distribution.
	4. Develop an understanding of the spatial effects of the ways in which people interact with each other and with their environments;	4. To develop an understanding of the relationship and interactions of people and their environment in response to physical and human processes.
	5. Develop an understanding of different communities and cultures	5. To develop an understanding of social, economic,

	throughout the world and an awareness of the contrasting opportunities and constraints presented by different environments.	environmental and cultural issues in Eswatini.
		6. To develop an understanding of the importance of positive human attitude and values on the management of the environment and sustainable development of resources
		7. An understanding of different communities and cultures throughout the world and an awareness of the contrasting opportunities and constraints presented by different environments.

Source: The IGCSE (2009), EGCSE (2020) and GCE (2006) Geography syllabi

5.2.1.3 CHANGES IN THE ASSESSMENT OBJECTIVES OF THE GCE, IGCSE, AND EGCSE SYLLABI

Table 5.2 below presents the results of the GCE, IGCSE and SGCSE/EGCSE compared to identify the changes in the assessment objectives that had occurred.

TABLE 5.2: ***COMPARISON OF THE ASSESSMENT OBJECTIVES OF THE SYLLABI***

GCE (O' level)	IGCSE	EGCSE
Assessment objectives not stated in the syllabus	1. Knowledge with understanding	1. Knowledge with understanding
	2. Analysis	2. Analysis
	3. Judgement and decision making	3. Judgement and decision making
	4. Investigation (Enquiry, Practical and Presentation Skills)	4. Investigation and Evaluation

Source: The IGCSE (2009), EGCSE (2020) and GCE (2006) Geography syllabi

5.2.1.4 CHANGES IN THE TEACHING APPROACHES

Table 5.3 below presents the results of the GCE, IGCSE and SGCSE/EGCSE to identify the changes in the teaching approaches that had occurred.

TABLE 5.3: ***Changes in approaches in the teaching from GCE, IGCSE to SGCSE Geography curriculum***

GCE syllabus	IGCSE syllabus	SGCSE syllabus
1. Teacher centred	1. Learner centred	1. Learner centred
2. Structured on recall of information	2. Encourages problem solving	2. Encourages problem solving
3. Encourages passive learning	3. Encourages active participation by learners	3. Encourages active participation by learners
4. Assessment is based on facts	4. Critical thinking is encouraged	4. Critical thinking is encouraged
5. Lecturing is the chief method	5. Collaborative learning strategies are used	5. Collaborative learning strategies are used

5.2.1.5 CHANGES IN THE TEACHING OBJECTIVES

Table 5.4 below presents the results of the GCE, IGCSE and SGCSE/EGCSE to identify the changes in the teaching objectives that had occurred.

TABLE 5.4: ***A COMPARISON OF THE TEACHING OBJECTIVES, GCE, IGCSE AND SGCSE GEOGRAPHY SYLLABI***

Teaching Objectives GCE	**Teaching Objectives IGCSE**	**Teaching Objectives EGCSE**
1. Acquired knowledge and understanding of geographical information.	1. Demonstrate knowledge and understanding of physical, human and geographical features.	1. Demonstrate knowledge and understanding of physical, human and geographical features
2. Factual recall of facts and good memory	2. Analyse geographical data	2. Analyse geographical data
3. The ability to recall and interpret graphs	3. Demonstrate an ability to make reasoned judgement	3. Demonstrate an ability to make reasoned judgement
4. The ability to learn an extensive set of terms	4. Investigate and evaluate geographical information	4. Investigate and evaluate geographical information

Source: The IGCSE (2009), EGCSE (2020) and GCE (2006) Geography syllabi

5.2.1.6 OBSERVED CHANGES IN LEARNING OUTCOMES AND APPROACHES IN THE TEACHING OF THE GCE, IGCSE, AND EGCSE SYLLABI

Table 5.5 below presents the results of the GCE, IGCSE and SGCSE/EGCSE to identify the changes in the learning outcomes that had occurred.

TABLE 5.5: ***OBSERVED CHANGES IN LEARNING OUTCOMES OF GCE, IGCSE AND SGCSE CURRICULUM***

GCE syllabus	IGCSE syllabus	EGCSE syllabus
5. Teacher centred	1. Learner centred	1. Learner centred
6. Structured on recall of information	2. Encourages problem solving	2.Encourages problem solving
7. Encourages passive learning	3. Encourages active participation by learners	3. Encourages active participation by learners
8. Assessment is based on facts	4. Critical thinking is encouraged	4. Critical thinking is encouraged
5. Lecturing is the chief method	5. Collaborative learning strategies are used	5. Collaborative learning strategies are used

Source: The IGCSE (2009), EGCSE (2020) and GCE (2006) Geography syllabi

5.2.1.7 COMPARISON OF EXPECTED LEARNER OUTCOMES FROM KAZERI (2011) WITH THOSE OF CURRENT EGCSE

Table 6 below presents the results of the GCE, IGCSE and SGCSE/EGCSE to identify the changes in the learning outcomes that had taken place.

TABLE 5.6: ***COMPARISON OF EXPECTED LEARNER OUTCOMES FROM KAZERI (2011) WITH THOSE OF CURRENT SGCSE/EGCSE***

Kazeri (2011) Learner Outcomes	Current EGCSE Learner Outcomes
➢ Communication skills	➢ Analytical skills
➢ Problem solving skills	➢ Problem solving skills
➢ Innovativeness	➢ Investigative and evaluative skills
➢ Creativity	➢ Judgment and decision making
➢ Willingness to learn	➢ Participation
➢ Critical thinking	➢ Critical thinking
➢ Self- awareness	➢ Self-awareness
➢ Knowledge and knowhow	➢ Knowledge acquisition

Source: KAZERI (2011) EGCSE (2020) SYLLABI

These observations confirm that indeed there were changes that had been effected based on comparison of the old GCE curriculum to the new EGCSE curriculum. The changes signaled that Geography is versatile, expressive, creative, problem-solving, practical and an intellectually-stimulating subject. The observed changes were more about the way aspects of Geography were delivered rather than about coverage. The change is mostly based on the fact that learning is not about facts acquisition and skills rather about combining sound enquiry research skills and exploration. The changes were a new flexible curriculum that was aimed at changing the approach of teaching in the classroom.

During the interviews, the teachers confirmed that indeed there were changes in the new curriculum. They believed that the changes were in terms of the aims, teaching objectives, assessment objectives, teaching approaches and learning outcomes of the syllabi.

Teacher A reported:

> ***Yes, there has been changes in the EGCSE syllabus from the GCE syllabus. The GCE curriculum was mainly dominated by recall and the EGCSE is dominated by skills. Learners are now expected to demonstrate the skills learnt in the classroom which means it is more learner - centred unlike the GCE which was teacher centred. Changes are also seen in the assessment objectives. Assessment is now skills based unlike in the GCE curriculum which was mainly knowledge acquisition and testing was based on recall of facts.***

Similarly, teacher B identified the changes between the GCE and the current EGCSE curriculum. The observed changes were in terms of the teaching and learning approaches that had changed from a teacher-centred to learner-centred approach. This was disclosed when she stated that,

> ***Indeed, there is a great change between the GCE and the EGCSE syllabi. The EGCSE syllabi is more learner –centred compared to the GCE which was teacher centred. I used to use the lecture method more often but now I also use other leaner - centred methods such as demonstration, discussion, questioning and sometimes fieldwork. Another significant change is in the way the examination is structured. Learners are now tested on skills more than the recall of information.***

Correspondingly, teacher C also concurred with the aforementioned views of their colleagues. He believed that there had been a change in the syllabus of Geography. This was revealed when he said that,

> ***Yes, there is a huge difference between the two syllabi. GCE was very traditional in its approach while EGCSE is more scientific in approach. During the GCE syllabus, all I was concerned about was knowledge acquisition by the learners. I would lecture the whole period and they would only take notes. However, things have since changed with the EGCSE syllabus. Learners are expected to be actively involved throughout the lesson and demonstrate understanding of the skills learned.***

5.2.2 THE LESSON PLAN

Responses Geography teachers reveal that they planned for their lessons. This was evident in the documents of the participants since that were given to the researcher. They had all planned their work. The lesson plans revealed great commitment by the Geography teachers to ensure preparedness before lesson delivery. This was evident during the interviews where teachers stated that planning was compulsory and that the HODs checked lesson plans before lessons.

Teacher A commented that:

> ***Lesson planning is compulsory in the school. Heads of departments check the lessons before we go to class. Actually we work together as a department to scheme our work and the individual teachers do the planning of their lessons as individuals. This is done to help each other especially in topics where others feel they are not confident. We believe that teachers were good in some topics but not in other topics, so we do core teaching to feel up the gaps.***

In the same way, teacher B acknowledged the importance of teamwork as it ensured successful teaching. This was very helpful in that teachers complimented one another in the different topics. She attested to this when she stated that,

> ***As teachers, we are not always competent in all the topics in the syllabus. Sometimes it happens that a teacher is more proficient in other topics compared to others. For instance, I prefer human Geography to physical Geography because learners can always use their own general knowledge from daily experiences unlike physical geography which is more scientific and factual. Therefore, working together helps us to meet each other's weaknesses. We then scheme together and then we plan our lessons individually and HODs help us by checking them before lessons.***

The same view was also held by teacher C when he said that,

> ***As a department, we prefer planning of lessons to be done together in order that individual weaknesses could be detected and be catered for. Teachers are good in some***

topics but not in others. Therefore, teamwork is very important in order to ensure successful teaching. We help one another to teach topics where one feels comfortable.

The teachers agreed that the success of a lesson depended mostly on departmental teamwork. They concurred that team work was the way to go in the departments in order to have good results, as seen above. Therefore, the data revealed that there was teamwork in the departments in the different schools. It could be noted that the lesson plans had the major components of a good lesson plan. However, as (Babbie 2016:51) suggests that in qualitative research, data is inductively analysed moving from specific to general. Specific observations to the discovery of patterns that represent the degree of order among given events, it was easy to identify that the teachers were capacitated on how to plan their work. However, there was no consistency among the teachers. There were those who planned exceptionally well and those who struggled with planning. Some failed to state SMART objectives while others stated objectives that did not help the learners to grow in the learning process. The following extracts are from the lesson plans of teachers A, B and C.

Teacher A

Class: Form 4

Subject: Geography

Lesson title: Plate movements and resulting landforms

Lesson objectives: By the end of the lesson, learners should be able to:

a) Describe the structure of the Earth's surface, rivers, dams, roads etc.
b) Describe the types of tectonic plate boundaries.
c) Describe the processes involved in plate movements.

Teaching methods: Demonstration and Guided discovery

Teaching Aids: -Handouts on plate movements

- Oxford modern Geography

Lesson development:

Step 1: teacher introduces the lesson by asking the learners to name the internal structure of the Earth.

Step 2: teacher draws a table on the chalkboard.

Step 3: teacher asks the learners to differentiate between the crust, mantle and the core.

Step 4: learners respond to the question.

Step 5: teacher differentiates the two types of crusts (oceanic and continental crust)

Step 6: teacher writes down notes on the chalkboard for learners to copy.

It could be noticed though that teacher A's second lesson objectives did not vary in terms of the levels of difficulty. According to the stated objectives of the lesson plan, learners were expected to describe throughout the lesson, something which was contrary to the lesson development. Moreover, what transpired during the lesson was not a true reflection of the lesson plan.

Teacher B

Class: Form 5

Subject: Geography

Lesson topic: Arable commercial crop farming

Lesson objectives: By the end of the lesson, learners should be able to:

1) Define arable commercial farming, intensive and extensive farming.

2) Describe the inputs, processes and outputs of intensive farming and extensive farming.

3) Describe the impacts of large scale commercial farming on the people and the environment.

4) Evaluate the strategies undertaken by government to promote intensive farming.

Teaching methods: Guided discovery and Question and answer.

Teaching Aids: -Oxford Modern Geography

-Hughes

-Macmillan Geography for Southern Africa, pages 100-102

-Pictures

Lesson development:

Step 1: teacher introduces the lesson by asking the learners to explain the difference between subsistence and commercial arable farming.

Step 2: teacher leads a discussion on intensive cash crop farming.

Step 3: learners lead a discussion on inputs, processes and output in intensive cash crop farming.

Step 4: teacher leads a discussion on extensive farming as a system and asks learners for contributions.

Step 5: teacher explains how the impact of large scale farming can be positive to people.

Step 6: teacher asks learners to give an account on how farming can negatively impact the environment.

Step 7: learners expected to define commercial crop farming, intensive and extensive farming. They will also identify a type of farming shown in a picture provided by the teacher.

It could be noted that some teachers had been trained on scheming and lesson planning, when this data was compared with the interview data. This was revealed by teacher B when she said that she was involved in curriculum development for the new curriculum.

Teacher B mentioned that:

Actually, I was one of the teachers who were selected to be part of the team for the development of the EGCSE curriculum. We were chosen to be Trainers of Trainees (TOTs). We came back and held regional workshops for the teachers. Although it was not enough since not all the teachers attended due to time and space. Yet looking at the content that had to be covered, we needed more time for the teachers to be well equipped and be ready for the new curriculum. Those who attended really benefitted a lot since we taught them how to scheme and do lesson pans together. We also trained teachers on how to mark examination question papers together.

It was evident in the work of teacher B that she indeed attended some training on the implementation of the EGCSE curriculum. This was revealed by the way she prepared her lesson plan. The lesson objectives were all measurable and from simple to complex. The teaching approaches employed were learner-centred throughout the lesson. Moreover, at the end of the lesson, learners were given some work to do.

Teacher C

Class: Form 5

Subject: Geography

Lesson topic: Industries (Classification and employment structure)

Lesson objectives: By the end of the lesson, learners should be able to:

1) Describe and give examples of primary, secondary, tertiary and quaternary industries.

2) Explain an industry as a system.

3) Describe and explain the employment structure of MEDCs and LEDCs.

Teaching methods: Guided discovery and Question and answer.

Teaching Aids: -Oxford Modern Geography, pages 213-220

-Macmillan Geography for Southern Africa, pages 134-137

Lesson development:

Step 1: teacher introduces the lesson by asking the learners to explain an industry.

Step 2: teacher explains the four main types of industries.

Step 3: teacher explains an employment structure to the learners.

Step 4: teacher leads a discussion on extensive farming as a system and asks learners for contributions.

Step 5: teacher explains employment structure in Most Economically Developed Countries (MEDCs) and Less Economically Developed Countries (LEDCs).

Step 6: learners to be given a task to plot the relevant percentages of the industries on a triangular graph.

Step 7: teacher moves around marking learner's work.

It could be noted though that teacher C's lesson's objectives were not chronologically arranged from simple to complex as expected but they were mixed-up. He was using a teacher–centred approach most of the time.

Teacher C also shared the same view with the other teachers when he said:

> ***Yes, workshops were held to try and familiarize us with the new syllabus even though they seem not to be very effective. We usually meet for a short time and in large numbers. There is not enough time to go step by step with all the components of the syllabus and for us to ask questions where we encounter difficulties. We later practiced cluster workshops that were organised by the Swaziland Geography Teachers association (SWAGTA). These were poorly attended due to lack of resources such as financial constraints since teachers had to fund themselves and most teachers were demotivated. This has resulted to poor performance in the subject ever since the inception of the EGCSE syllabus.***

It was also revealed that the regional inspector from the Manzini region assisted the teachers on how to plan their work by giving them templates of schemes and lesson plans.

This was evident in the analysis of the lesson plans that all their work was similar, they followed the same format. However, it differed in terms of how individual teachers stated their objectives and how they carried out the actual implementation of the curriculum in the classroom.

5.3 DATA FROM NATIONAL EXAMINATION RESUTS FOR GCE, IGCSE AND EGCSE

Question: Is there a difference in performance of students in the different curricula?

Data for national examination results of secondary schools was obtained from the Examination Council of Eswatini (ECESWA) for the different curricula, namely, IGCSE and EGCSE as shown in Table 5.7. The schools' national examination results were compared to see if there was a difference in performance between the GCE, IGCSE and EGCSE external examinations.

TABLE 5.7 Results of Eswatini GCE, IGCSE & SGCSE/EGCSE in Form 5 from 2002 to 2020 (www.examscouncil.org.sz)

LEVEL/ QUALIFICATION	EXAM YEAR	CREDITS ONLY	PERC	OVERALL PASSES	PERC
GCE	**2002**	1520	32.86	3147	68.03
	2003	1582	35.85	3113	70.54
	2004	1792	36.59	3499	71.44
	2005	1972	34.72	4102	72.23
	2006	2334	34.40	4876	71.88
IGCSE	**2007**	1042	17.90	4953	85.08
	2008	373	35.93	5421	93.70
	2009	1386	21.74	6000	98.85
SGCSE/ EGCSE	**2016**	2052	24.87	7934	96.16
	2017	2157	23.76	8784	96.77
	2018	1963	22.31	8400	95.49
	2019	2199	25.40	8294	95.78
	2020	2354	26.30	8588	95.94
LEVEL/ QUALIFICATION	**EXAM YEAR**	**CREDITS ONLY**	**PERC**	**OVERALL PASSES**	**PERC**

5.3.1 Data from ECESWA examination report

As a body responsible for the external examinations, the Examination Council of Eswatini (ECESWA) analyses external examinations for the purposes of compiling reports on how schools have performed. According to the ECESWA examination report (Examination Council of Eswatini (2020), learners' performance was not at all satisfactory. Learners continued to perform poorly. It was noted that most of the learners had challenges with the items on skills acquisition thus contributing to the low credit pass rate of Geography

as a subject. Learners performed better in items that required recall of knowledge and performed poorly on items that required application of skills.

When this researcher compared learners' internal school's prepared examination results with external examination results, leaners performed much better in their school's prepared examinations than in the ECESWA (external examinations) results. This raised a lot of questions regarding the teachers' prepared internal examinations if they were prepared according to the ECESWA national examination standards. There might be a problem in the implementation of Geography in the schools. This was very concerning because continuous failure by students to get good results in Geography, particularly credit passes, was likely to instill negative attitudes in learners about the subject.

5.4 DATA FROM INTERVIEWS

5.4.1 Characteristics of participants

The distribution of the sampled Geography teachers is displayed in the following table according to their gender, experience and qualification.

Table 5.8: Profiles of the participants

Respondents	**Gender**		**Experience in years**				**Qualification**			**Teaching load**	**Number of learners**
	M	F	Total	1-5	11-15	16 and above	Diploma	BA	MEd	Per cycle /week	In class
Teacher A		F	1	-	-	✓	-	✓	-	29	48
Teacher B		F	1	-	-	✓	-	✓	-	28	45
Teacher C	M		1	-	-	✓	-	-	✓	32	52
Total	1	2	3	-	-	-	-	2	1	-	-

Table (5.8) is a summary of the profiles of all the participants in this study. There were three teachers and they were selected from the three sampled schools, that is, one from each school. The table shows the experience distribution of participants in the sampled schools. They all had 16 years and above work experience. Two teachers were Bachelor of Arts Degree holders while one had a Master's in Education. This means that from this data, we can conclude that all the participants had reasonable work experience in the teaching of Geography. Therefore, they were supposed to have sufficient professional knowledge and skills to teach secondary school Geography education and have a better content knowledge and pedagogically skilled to practice learner-centred methods in the teaching of Geography.

5.4.1.1 Teachers' responses to interview questions

There were 11 semi-structured interview questions raised to the Geography teachers. In the open-ended interview, the exact wording and sequence of questions were determined. The collected data was categorised into themes and related groups which were organised in relation to the research questions of this study (see 4.1). In the data presentation and analysis of this study, some of the comments and statements by the participants are quoted word for word to demonstrate and give emphasis to the themes and categories.

All respondents were asked the same basic questions in the same order. The responses of the interview questions were then analysed afterwards.

Question: What changes have been made to the syllabus for Geography teaching and learning? (Appendix J)

In responding to the above question, all 3 teachers agreed that there were changes between the old GCE and the new EGCSE Geography syllabi. Two of the geography teachers explained that the changes were evident in the aims of the syllabus as well as the assessment objectives. The other teacher added that there were changes also in the teaching approaches of the new Geography syllabus. Teacher A agreed that there were changes in the syllabus when she pointed out that:

Yes! There are significant changes between the GCE and the EGCSE Geography syllabi. I have noted that the aims of EGCSE are different from those of GCE. The other changes are in terms of the assessment objectives. For example, GCE was dominated by recall and understanding while EGCSE there is more testing of higher order skills such as analysis, evaluation and synthesis.

The same sentiments were shared by teacher B, who stated that:

Indeed, there is a great change between the GCE and the EGCSE syllabi. The EGCSE syllabi is more learner –centred compared to the GCE which was teacher centred. I used to use the lecture method more often but now I also use other leaner - centred methods such as demonstration, discussion, questioning and sometimes fieldwork. Another significant change is in the way the examination is structured. Learners are now tested on skills more than the recall of information.

Teacher C also concurred with the two teachers and shared that:

Yes, there is a huge difference between the two syllabi. GCE was very traditional in its approach while EGCSE is more scientific in approach. During the GCE syllabus, all I was concerned about was knowledge acquisition by the learners. I would lecture the whole period and they would only take notes. However, things have since changed with the EGCSE syllabus. Learners are expected to be actively involved throughout the lesson and demonstrate understanding of the skills learned.

After answering the above question, the teachers were asked another question on how they would express the unique nature of Geography regarding teaching and learning strategies.

Question: How would you express the unique nature of Geography regarding teaching-learning strategies? (Appendix J)

All the respondents confirmed that Geography was a unique subject and that it drew its contents from both social and natural sciences. This means that most of the Geography contents were found outside the classroom hence needed practical activities in which learners engaged actively in the teaching process. The interviewees also stated that

teaching strategies that effectively suited the Geography content were field work, whereby learners learnt best by doing, demonstrations, presentations, group discussion and experimentation. For example, Teacher A from School A contended that:

> ***Geography is a unique subject in its content and teaching approaches. It derives its content from the social and natural science disciplines and replicate the real world. Basically Geography is a real subject and not abstract. There is more use of innovative ways of teaching such as visuals. This brings the real picture of the phenomena under study into the classroom even for abstract topics. There is more use of practical teaching strategies such as demonstration, field observation and experiment. Moreover, Geography content requires special teaching materials such as Globes, Maps, atlases, projector, photographs, meteorological instruments, rocks and mineral samples as well as computer-linked aids.***

On the other hand, Teacher B from school B explained:

> ***Geography has unique contents in that it comprises real life experiences. In Geography, learners are exposed to daily life activities. This is because Geography requires learner-centered teaching strategies such as project work, Map work, field work, group work and presentations which are very useful in that learners relate to the environment.***

Similarly, Teacher C from school C explained:

> ***Geography is a unique subject because it is an integrating discipline. It is the only subject that draws its content from diverse disciplines such as history, economics, geology, religion, climate, sociology, anthropology, crop science and statistics. This makes it the mother of all subjects. It is unique in that learners interact directly with the environment during the teaching and learning process.***

This view on the unique nature of Geography is supported by NICED when explaining that:

The acquisition of knowledge on Geographical encompassed much more than the recall of information. A well-developed understanding of Geography can only be a product of a

process of an investigation in which questions are asked, evidence is examined and conclusions have been drawn (NICED, 1988 in Fisher, 1998, p. 21).

Likewise, Asfaw, Sharma, Woldesemait & Weldeslassie (2011: VI) also expand on the unique nature of Geography as follows:

In Geography, learners learn through observation and practical application, which is the opposite of other sciences whose practical work is conducted in laboratories. As a result of this fact, Geography learners must experience outdoor teaching methods, such as field trips and field work. For instance, they might go to nearby areas to look for various land forms. In addition to fulfilling the requirement such practical experience, field trips and field work make the subject more realistic and increase students' interest (Asfaw etal, 2011:VI).

Olusegun's (2006:28) also confirm the unique nature of Geography when he stated that the subject is versatile, expressive, creative, problem-solving, practical and intellectually stimulating school subject. The distinguishing features of Geography namely central concepts, logical internal structure, methodology, integrative nature and transparent interdisciplinary effects make it an integral part of any worthwhile school curriculum.

Therefore, from both the responses of the respondents and information published in literature, one can conclude that indeed Geography is a unique discipline with its own real-world and outdoor learning and teaching approaches, resources as well as assessment techniques. The unique nature of Geography as a discipline should be considered at all times when integrating the relevant content, objectives, teaching approaches, assessment techniques, teachers' role and learners' activities.

5.4.1.2 Research study question 2

The second objective of this study was to establish if teachers were well equipped for the new curriculum (see1.4.2). To establish this, research question two was used (see 1.4.1). So as to answer the research question two above, the teachers were asked if there was in-service training for the implementation of the new curriculum.

Question: Was there in-service training for the implementation of the new curriculum? (Appendix J)

The common response to this question was that there was no training that was done to prepare for the implementation of the new curriculum for all the teachers. Only a few teachers were chosen to be Trainers of Trainees (TOTs) which was not enough for all the teachers. The participant teachers also felt that the regional workshops that were later held to try and capacitate the teachers were not effective. This was pointed out by some of the teachers in the following statements:

Teacher A from school A stated that:

> ***The Ministry of Education and Training tried to hold regional workshops where teachers who had been trained on the new curriculum tried to educate us on the new curriculum. However, this training was not at all effective for a number of reasons. Representatives from all the schools were invited to gather in one venue. This was not enough training since we were a large group packed in a small venue. The time was also not enough because this was a one day workshop and everything about the syllabus had to be clamped in one day. There was no time to ask questions and for clarifications.***

In contrast, Teacher B from school B agreed that:

> ***Fortunately for me, I was one of the teachers who were selected to be part of the team for the development of the EGCSE curriculum. I formed part of the team of Trainers of Trainees (TOTs). As much as we held regional workshops, they were not thoroughly done to equip the teachers since not all the teachers were invited due to time factor and space. Only one or two teachers per school were invited to go back and share the information with their colleagues. I think more time is needed to train the teachers in small groups so that we identify areas of difficulty and emphasize on them. Those of us who got the opportunity to train thoroughly are better equipped on the new curriculum.***

Teacher C from school C admitted that:

> ***The training that was given was not at all enough hence I may say it was impartial. Some of us could not attend even the regional workshops that were held. Only my Head of***

Department attended the training, however she could not answer some of the questions we had concerning the new syllabus when she tried to explain to us. Up to now we are still not confident in implementing this syllabus. I think small groups can be more effective and all the teachers should attend the workshops and ask questions where they do not understand.

In order to ascertain the extent at which teachers were involved in the whole process of curriculum implementation as the key implementers of the curriculum, they were asked a question if they were involved in the planning for the implementation of the new curriculum.

Question: Were you involved in the planning for the implementation of the new curriculum? (Appendix J)

When responding to the above question, only 1 teacher confirmed that she was involved in the implementation process of the curriculum. The others said that they were not involved except when they had to implement it in the classroom. In the below responses, they shared their experiences:

Teacher A, from school A said that:

No, I was not involved in the planning and development for the implementation of the new curriculum. We were not consulted to be alerted on the new change that was coming in the subject. We first heard about it as a rumor that a change in the subject was coming. Before we knew it, it was here and we had no choice but to implement it. As primary implementers of the curriculum I think teachers' involvement in curriculum development is very crucial because teachers have vast experience concerning the curriculum and their contributions and opinions are very important.

Teacher B, from school B remarked that:

Yes, I was involved in the implementation stage of the process. A consultant was hired by the Ministry of education to train TOTs who will then teach other teachers the expectations of the new curriculum. I was one of those TOTs hence I am saying I was

involved. However, not all the teachers were involved in the development of the curriculum, only a selected few. I think it would have been better to involve all the teachers since we have different experiences as far as the curriculum is concerned.

Teacher C, from school C commented that:

No, I was not directly involved in the development implementation of the new curriculum. However, we were informed by our Head of Department that the Ministry of Education and Training was planning to change the Geography curriculum. Regional workshops then followed in which not all of us were invited to attend but those selected few who were then supposed to come and share the information with the rest of the department members.

5.4.1.3 Research study question 3

Another main objective of this research was to assess if the changes were well implemented (see 1.4.2). To find out this, a research question three was used (see 1.4.1). So as to find answers to the above research question, the teachers were asked questions which pertained to the teaching strategies that were designed in the Geography syllabus and those that they used in the classroom.

Question: What are the teaching strategies that are designed in the Geography syllabus? (Appendix J)

When answering the above question, all the teachers in schools A, B and C indicated that the new syllabus had more practical teaching strategies compared to the old GCE syllabus. The following are their verbatim responses:

Teacher A from school A indicated that:

The new EGCSE curriculum has practical teaching strategies such as fieldwork, observation, map work and research. What is more glaring about this syllabus is that it is more skills based compared to the GCE syllabus that was dominated by recall types of questions.

Teacher B from School B stated that:

> ***The EGCSE syllabus is full of skills based methods of teaching compared to the old GCE syllabus. We now have exposition, demonstration, discussion, fieldwork and research among others. The teacher is supposed to be a facilitator than the custodian of the teaching and learning process. Learners are expected to do most of the work and the teacher assists them instead of spoon feeding them as we used to do.***

Teacher C from School C, mentioned that:

> ***The Geography syllabus has learner-centred teaching strategies for instance fieldwork, presentation, demonstration, project work and discussion. It emphasises more on skills acquisition. Learners are supposed to perform tasks, so it is learner- centred in approach than the GCE syllabus which was teacher centred.***

In Geography teaching, emphasis is now on problem solving rather than the prescriptive and expository methods. Hence the development of skills like observation, recording, data analysis and the use of information to solve problems are very crucial. In order to determine the teaching methods that the selected Geography teachers used in class, they were asked to state the teaching methods that they used to teach the subject.

Question: State the teaching methods that you use in teaching Geography. (Appendix J)

To answer this question, the interviewed teachers were asked to state the different teaching methods they commonly used in teaching Geography in their classrooms since the introduction of EGCSE. Their responses are as follows;

Teacher A from school A declared that:

> ***I normally use the lecture method, question and answer as well as the discussion method. I use these methods because they are fast to cover the content as the syllabus is too long for the amount of time that we have. Other methods are time consuming and not easy to use like research and problem solving. Our learners are not used to them so they take time.***

Similarly, Teacher B from school B remarked that:

As much as I am aware that I have to use learner- centred methods at all times, sometimes it is not possible. Most of the time I find myself using the lecture method because it is fast and I am able to cover more content in a short space of time. The syllabus is too long and the periods are few hence not enough to finish the syllabus in time. I also engage the learners in group discussions sometimes. I use the demonstration method as well at times depending on the topic.

On a similar note, Teacher C from school C mentioned that:

I use the lecture method, question and answers, group discussions, individual and group work methods of teaching. I am now used to using these methods of teaching since I have been using them from way back in the teaching profession. We were told that we now have to use other methods that are more leaner-centred like research and problem solving as indicated in the syllabus. However, I am still not used to these methods and I am not confident in using them hence I end up using the traditional methods.

To determine how the teachers understood the value of learner-centred methods of teaching Geography, they were asked the following question:

Question: What is the value of learner-centred methods in the teaching of Geography? (Appendix J)

Concerning the value of learner-centred methods of teaching, all the respondents stated that learner-centred methods of teaching had a great value. For instance, Teacher A from school A stated that:

Learner-centred methods of teaching have a huge value. This is because they enable the learners to participate actively in the teaching and learning process. They encourage interaction among themselves and with the teacher. During the process learners develop important skills such as creativity, critical thinking, self-confidence, independent learning abilities, commitment and responsibility to their own learning. However, these methods are time consuming. Therefore, I find myself using the faster methods, such as the lecturer method in order to finish the syllabus faster.

Teacher B from school B asserted that:

> ***I think learner-centred teaching methods are more valuable than teacher-centred methods of teaching because they encourage learner participation and interaction in the classroom. Through learner-centred approaches, learners are able to integrate theory from classroom lessons with the outdoor practical learning. For example, during fieldwork, learners are able to get the opportunity to experiment by actually seeing and touching the things they learn about in the classroom. However, as I stated earlier, I use the learner-centred methods the most because they are more convenient and save time.***

Teacher C from school C declared that:

> ***I strongly believe that learner-centred approach is the ideal method to be used in the classroom. This is because it has more value in that it enables learners to develop sustainable skills since the learners have an opportunity to ask questions and find solutions to problems on their own. The role of the teacher is to encourage the learner's participation through activities. The learner-centred approach develops the learner's creativity and thinking skills among others. Therefore, learner-centred methods are recommended in a Geography class than teacher-centred methods.***

The changes in the curriculum called for a change in the roles of teachers and learners in the teaching and learning process. To help determine the roles of teachers during the implementation of the curriculum, the following question was asked:

Question: What is your major role in and out of the classroom in the implementation of the Geography syllabus? (Appendix J)

Concerning major role played by the Geography teachers in the implementation of the curriculum of the subject, the respondents explained that teachers had varied roles in the school. For instance, Teacher A from School A stated her role as:

> ***I make sure that learning materials are always available to the learners. I also prepare and provide them with notes. While practicing the syllabus, I am also involved in different other school duties. For instance preparing lesson plans, administering mid and final year examinations, participating in extra-curricular activities, attending school***

and departmental meetings, counseling and tutoring learners. The list is just endless. Due to all these duties, I get exhausted and end up focusing on content delivery than skills acquisition methods of teaching.

Teacher B from school B held the same view when she remarked that:

In the new curriculum, we were told that the role of the teacher is that of a facilitator during the teaching and learning process. The learners are supposed to be actively \involved in their own learning. The teacher's role is to initiate and facilitate discussions, coaching and direct the earners. Therefore, the teacher's main focus should be on guiding learners by asking questions that will enable them to draw their own conclusions on the subject. However, due to some constrains such as shortage of time, I do not always apply these teaching methods that engage the learners. I end up assuming the role of being an expert in the classroom transferring knowledge instead of a coaching role, guiding students in the learning processes.

Geography teachers were therefore aware of the expected roles they had to assume during the implementation of the curriculum. However due to other factors such as lack of resources and expertise on how to use learner-centred approaches, most of them ended up using traditional methods of teaching, specifically the lecture method as well as summative assessment techniques. This was revealed by Teacher C from school C when he said that:

I am quite aware of the learner-centred approach concept and its principles in general but the problem arises on its application. According to the learner-centred approaches, teachers are supposed to guide learners during lessons in the classroom and learners are supposed to be actively involved and be responsible for their own learning. However, I am still not confident with this approach I feel I need to learn more since the workshops were impartial. I am aware of the approach theoretically but less competent to use it in my teaching. This means that I use the traditional methods especially the lecture method most of the time. Therefore, my role is that I deliver knowledge to the learners and give them notes. They listen and copy notes and that makes our lessons faster to save time.

5.4.1.4 Research study question 4

Another main objective of this research was to evaluate whether there were challenges in implementing the new Geography curriculum (see1.4.2). To evaluate the challenges, research question four was used (see 1.4.1). So as to find answers to research question four stated above, the Geography teachers were asked questions relating to the challenges they encountered while implementing the new syllabus.

Question: What challenges do you encounter in the implementation of the new curriculum? (Appendix J)

In answering the above question, the respondents from schools A, B and C indicated that indeed there were a number of challenges that they faced as they tried to implement the curriculum. Their verbatim responses are pointed out below:

> ***Teacher A from school A commented that, we have a challenge with the learners that we have. They are not at all motivated to learn. Even if I try to engage them by using learner-centred methods of teaching, they are very reluctant to participate. I am left with no choice but to use the lecture method just to deliver the information. We are also faced with shortage of resources for the Geography department and that too limits us from using many teaching methods. I think our administration is not supporting us enough to get the teaching materials that we need for the subject.***

In the same way, Teacher B from school B revealed that,

> ***Lack of geography resources in the school is a major concern. For instance, the geography room is very important because that is where geographical inquiry skills can be effectively done, such as map reading skills, graph-table and diagram reading skills, unfortunately we do not have it in the school. The other challenge is the shortage of time and lack of financial support from the school administration for field excursion activities. Moreover; a majority of our learners are less capable to learn by themselves and to take responsibilities for their own learning. This is because, the majority of the learners are low and medium achievers who always depend on the teacher for***

information. For that reason, I am compelled to use the traditional methods of teaching most of the time.

Similarly, Teacher C from school C concurred with the other respondents when she remarked that,

> ***The issue of shortage of resources is a major concern in the school. Even if we want to engage the learners through practicals like using the weather instruments, we cannot because we do not have a weather station with the weather instruments. This restricts from using many approaches of teaching but focus on traditional methods mainly the lecturer method. Time is also not enough to finish the syllabus since it is too long. Moreover, the leaners lack motivation which makes it difficult to practice learner – centred methods since there is no smooth teacher- learner interaction.***

Education is considered appropriate if it responds to the needs of a society especially that regarding knowledge, know-how and self-awareness. Therefore, a relevant curriculum should produce high level graduates that match what the labour market wants. In terms of knowledge, a relevant curriculum would produce graduates who possess communication skills, problem solving abilities, innovativeness and creativity. To help determine the extent to which the teachers supported the idea of the new curriculum, the following question was asked:

Question: Do you think it was a good idea to introduce this curriculum reform? (Appendix J)

As far as the relevance of the new Geography curriculum was concerned, all the respondents stated that the EGCSE curriculum was very relevant to the current situation of the country and to the word at large. According to the teacher participants, this was because it employed learner-centred methods of teaching that had a huge value characterized by encouraging learner participation and interaction amongst themselves, develop learners' creativity, develop critical thinking abilities, self-confidence, learners' independent learning abilities, learners' commitment and responsibility of their own learning. They said these skills prepared the learners for the world of work. The following statements are their verbatim responses:

Teacher A from school A mentioned that, I think this curriculum is very relevant towards the needs of our country. It encourages learner-centred skills that would enable them to be able to have an intellectual enquiry mind, ability to apply understanding in unfamiliar situations, research, problem solving skills and critical thinking. Unlike the GCE curriculum that encouraged passiveness in learners because it was teacher-centred.

The same view was shared by Teacher B from school B who asserted that,

This is a very good curriculum for our learners. Actually, skills acquisition is the way to go these days. Through this curriculum, learners are able to acquire some skills that they need in today's world. Unlike the old GCE curriculum where learners had to be passive listeners and the teachers gave notes and lectures, in this new EGCSE curriculum, emphasis is on the development of problem-solving skills and the acquisition of scientific knowledge and practicum. The learner-centred approach cultivates the cognitive, creative, productive and appreciative potential of learners by appropriately relating education to their environment and societal needs.

Teacher C form school C also agreed with her colleagues when she said:

This is the best reform to have ever been made in our education system since independence. I personally applaud our government to recognize the importance of a relevant education and skills that would transform our economy. These skills are very important and they are relevant to the labour market. Which means our learners would be competitive even to the outside world with skills like research, problem-solving, creativity and positive attitudes towards the environment. However, teachers should be capacitated when new reforms are introduced so that the curriculum can be implemented correctly. Right now we are not confident of what we are doing.

5.4.1.5 Research study question 5

The fifth main objective of this study was to know the difference in performance of learners in the different curricula (see 1.4.2). To determine this, research question five was used

(see 1.4.1). The teachers were asked questions relating to the performance of learners on the current curriculum compared to the former.

Question: Is there a difference in performance of learners in the different Geography curricula? (Appendix J)

All the teachers mentioned that the performance had significantly dropped in the new curriculum compared to the old one. The responses are as follows:

Teacher A form school A revealed that,

> ***Since the introduction of the new EGCSE curriculum, our learners are performing poorly compared to the GCE curriculum. There is no quality in the results. A majority of our candidates obtain passes with very few credit passes. This is so demotivating as there is very little improvement up to today***.

Teacher B form school B also conceded that,

> ***Compared to the GCE curriculum, the EGCSE curriculum has shown a huge drop in terms of performance. Learners are performing poorly especial in external examinations. The performance is exceptionally well during internal examinations but the problem comes with external examinations.***

Teacher C from school C stated that,

> ***The performance is very disappointing. Learners are performing very poorly in external examinations in this new curriculum compared to the old one. The quality of the results is so poor because candidates obtain mere passes with few credit passes. However, there is a slight improvement now but still very low compared to GCE.***

5.5 OBSERVATION

The observations were done on a number of issues. These include teaching approaches practiced in the classroom during the teaching and learning process, the types of assessment methods used, the types of instructional media used by Geography teachers,

teachers' and learners' activities during lessons, classroom facilities, class size, availability of material resources for teaching Geography, availability of textbooks and availability of physical resources such as the Geography room, Geography Departmental as well as a weather station for the schools.

5.5.1 Classroom observation (Appendix I)

Six lessons were observed, two from each school that participated in this study. Each of the lessons were described in detail in this section. Comments are made to enhance the understanding of the unfolding of events that took place within the classroom environment. During the observation, a variety of issues were merged, for instance the types of teaching methods used, the teachers' and learners' activities during the lesson, the types of assessment methods being used, the material resources used in the teaching and learning process and the class size. Therefore, the researcher observed the classroom lessons in six successive sessions in the different schools. Each class was observed two times and the lessons were named lesson A1 and A2 for school A Teacher A and so on, up to school C.

5.5.1.1Observation of lesson A1

School A

Name of teacher: Teacher A

5.5.1.1.1 Actual classroom teaching

As stated, table (8) is a summary of the participants' profile. Teacher A was a qualified Geography teacher holding a Bachelor of Arts in Humanities majoring in Geography. She also held a Post-Graduate Certificate in Education (PGCE). She had been teaching Geography for 24 years at the time of conducting this study and was the Head of the Geography Department in her school. Her school, school A was located in a semi-urban area. She taught for 29 periods per cycle and each period had 50 minutes during the time of data collection. There were 48 learners in each class.

Two lesson observations were done while Teacher A was teaching. The researcher used an observation guide and checklists (Appendices G, H, and J) regarding what to observe during the lesson. The first lesson began at 0845 and ended at 0935 hours and was held in a normal Form 4 classroom. Each period had a duration of 50 minutes and this lesson was a single period. The lesson was on plate movements. Teacher A introduced the lesson by asking learners to name the types of plate boundaries as a recap from a previous topic on plate tectonics. Learners answered the teacher's question and named the types of plate boundaries. She did this to test the learners' prior knowledge, which was commendable. The teacher then reminded the learners the skills required when describing distribution. She then described the distribution of Fold Mountains, volcanoes and earthquakes in relation to plate movements.

What this researcher observed was that during the presentation of the lesson, the teacher did most of the talking than the leaners. It can be said therefore that the class was dominated by the lecture method throughout yet learners are supposed to be actively involved in the teaching and learning process. During the presentation of the lesson, the teacher read from the book and explained briefly to the learners and also wrote notes on the chalkboard. She asked a few questions but the learners were too reluctant to answer the questions and a few responded with the majority of the class quiet. Learners were listening attentively receiving the information transmitted by the teacher as they copied the notes from the chalkboard.

As a result, the learners considered the teacher as the source of information and expected everything to come from her. However, this method of teaching, referred to as lecturing can have adverse effects on the part of the learners as it limits participation and academic development. It encourages passiveness among learners as the lesson is dominated by the teacher who use transmission approaches to deliver information. Kolahdouzan, Mahmoudieh, Rasti, Omid, Rostami & Yamani, (2020) contend that the lecture method is a traditional method of teaching, whereby leaners only receive information from the lecturer and try to remember instead of trying to understand it. It does not promote critical thinking in leaners because communication is often one way during the teaching-learning process.

Concerning the utilisation of instructional media by the Geography teacher, the researcher observed that no instructional media was used during the lesson. The teaching process was dominated by talking and chalkboard writing. As a result, the lesson was not really understood by the learners since the concept of plate tectonics was too abstract to them. The use of instructional media like pictures and videos could have helped the learners by allowing them to construct their own knowledge instead of the teacher transmitting knowledge to the learners.

Many researchers have strongly emphasized the importance of instructional media. For instance, Mzinga & Onyango (2021) conducted a study, where they explained the importance of instructional media in facilitating the teaching and learning process. They concluded that the use of learning materials in the subject of Geography contribute to enhanced creativity and innovativeness in learners. They further said that learning materials assist learners to comprehend difficult topics in Geography as they make learning very interesting and this motivates learners to fully participate in the learning process. However, Teacher A continued with the lecture until the bell rung. No form of assessment took place during the lesson except for the few questions that were poorly answered by the learners.

Moreover, Teacher A did not give the class activities, for instance, class work and other assignments. Learners' were not given work to do that was marked by the teacher to test their understanding of the content. This means that formative assessment was not practiced during the lesson.

5.5.1.1.2 Observation of lesson A2

School A

Name of teacher: Teacher A

5.5.1.1.3 Actual classroom teaching

The second lesson began at 1315 and ended at 1405 hours and just like the first lesson, it was held in a normal Form 4 classroom. The period had a duration of 50 minutes and the lesson was a single period. The lesson was on plate movements and resulting

landforms. Teacher A introduced the lesson by asking learners to name the layers of the internal structure of the Earth. The learners answered the teacher's question and named the internal structure of the Earth to differentiate between the crust, mantle and the core. The learners responded to the discussion and differentiated between the crust, mantle and the core as instructed by the teacher. The teacher then wrote notes on the chalkboard and the earners copied the notes for the rest of the lesson.

What the researcher observed during the presentation of the lesson was that, similar to lesson A1, the class was dominated by the lecture method with a discussion only in the introduction of the lesson. The teacher controlled the discussion and most of the talking was done by her. She described the structure of the earth's surface, rivers, dams and roads. She also described the types of tectonic plate boundaries as well as the processes involved in plate movements. What is worth noting is that, in the lesson plan, the teacher stated demonstration and guided discovery as the teaching methods to be used during the lesson, however neither of these were used during the lesson. Moreover, the teacher stated handouts as teaching aids but these were not available for the lesson except for the textbooks. This means that the teacher did not follow the lesson plan. No form of assessment was given to the learners during the lesson.

With regards to learners' engagement in the teaching and learning process is, this researcher observed that participation by the learners was so minimal. They were not actively carrying out activities, asking questions or giving suggestions and comments about the lesson. They would only answer questions briefly and the teacher was always the one elaborating on the answers. As already stated above, learners were passive during the teaching and learning process and the whole duration of the periods was covered by the teacher delivering the information.

5.5.1.1.4 Teaching strategies

Concerning the type of teaching methods that was mostly practiced by Geography Teacher A in both lessons that were observed was the lecturer method, which was dominated by writing notes on the chalkboard. Learners were passively listening and receiving the information transmitted by the teacher while copying notes from the

chalkboard. Hence, the learners viewed the teacher as the bearer of knowledge and expected all the information and activities to come from her. The lecture method of teaching does not encourage learner participation during lessons. This has a negative impact on the mastery of skills as per the dictates of the curriculum that requires learners to master the skills and demands learner-centred approaches of teaching.

Teaching Geography under the traditional classroom teaching model whereby the teacher, the book, and the classroom are the center of the teaching process does not promote skills acquisition on the learner. Under this model, teachers frequently do not pay attention to the individual growth of learners. Learners always receive information passively and cannot actively explore, which results to suppressing of learners' interests. Therefore, learner-centred teaching methods are valuable for Geography learners to integrate theoretical classroom lessons with the outdoor practical learning. This enables learner-learner interaction and teacher-learner interaction, which is more helpful to learners as it develops learners' creativity, critical thinking ability, self-confidence, learners' independent learning ability, learners' commitment and responsibility of their own learning (Sakata, Candappa & Oketch, 2021).

Furthermore, although the EGCSE curriculum demanded to be student-centered rather than teacher-centered, the implementation in the classroom by Teacher A was teacher-centered. In addition, the teaching and learning process was found not to be in accordance with the principles of the curriculum as detected by the constructivist principles. This means that Teacher A was using traditional methods of teaching mainly the lecture method for teaching Geography in her classroom instead of the preferred contemporary teaching methods and techniques as advocated by constructivism. Furthermore, it is clear that teacher centeredness was the major source in teaching the Geography in the classroom.

5.5.1.1.5 Instructional media

Instructional media are materials that a teacher can use to teach and help learners to learn through visual and audio observation. Quality teaching materials help greatly to strengthen the learners' original aspiration to learn and to withstand passion throughout

the course. Teaching materials play a significant role in encouraging learners to engage in constructing their own knowledge in different ways and increase their achievement. Rimbun, Sriyati, & Amprasto (2018) conceded that the importance of using instructional materials in the teaching and learning process makes the subject matter more real. This is because it clarifies difficult concepts and makes the learner experience what is being learnt. The learning process put emphasis on the establishment of hands-on experiences to develop competencies in order to increase the imagination of the learners preventing misconceptions and making learning more interesting.

Regarding the application of instructional media by Geography Teacher A, there was no instructional media that was used in the process of teaching and learning of Geography in the two sessions were observed. The teaching process was dominated by talking by the teacher and the learners were passively listening most of the time. As a result, the lesson was not well understood by the learners and this promoted rote learning. This means that Teacher A was transmitting knowledge to the learners instead of allowing learners to construct their own knowledge. Bijsterbosch, Béneker, Kuiper & van der Schee (2019) clarify that instructional media are no doubt the information transmitters that facilitate the teaching and learning process. The use of maps, globes, charts, models, meteorological instruments and technology should be employed in the teaching of Geography to facilitate and make learning more effective, exciting and more realistic. This therefore means that the practice by Teacher A was against the constructivist principles of teaching Geography. Therefore, learners were made to be passive participants and this could explain the performance in examinations.

5.5.1.1.6 Availability of physical resources

As far as the availability of teaching materials was concerned in School A, printed materials such as learners' text books, reference books, newspapers and teachers' guides were available and frequently used in teaching Geography in the school. When it comes to graphic materials like charts, graph papers, maps, atlases, globes and posters, not all of these were available except for charts and a few maps and atlases, however, none of these were used during the observed lessons. The school also did not have

audio-visual materials such as tape recorder, radio, camera, overhead projector, television, a computer lab as well as meteorological instruments.

The existence of a separate Geography classroom or laboratory is of paramount importance in the teaching of Geography since visualisation is key. However, in School A, a separate Geography room was not available. Geography was taught in a normal classroom where the seating arrangement was not suited to practice learner-centered teaching activities. The desks and seats were arranged straight in rows, making it difficult for the learners to seat in a circle to enable them to work in groups and for the teacher to supervise. Therefore, the classrooms were not conducive to perform learner-centered methods of teaching, particularly Geography teaching.

Abdullaev (2021) strongly recommends regarding the importance of resources so that Geography as a core subject should have materials resources that would enhance its teaching. These include a Geography room equipped with furniture designed for practical learning and storage of materials such as maps, charts, graph papers, maps, atlases, globes and posters. This assertion was echoed by the Geography teachers during the interviews when they stated that the shortage of material resources was the most serious challenge in implementing the curriculum.

5.5.1.2 Observation of lesson B1

School B

Name of teacher: Teacher B

5.5.1.2.1 Actual classroom teaching

As stated, table (8) is a summary of the participants' profile. Teacher B was a qualified Geography teacher holding a Bachelor of Arts in Humanities majoring in Geography. She also held a Post-Graduate Certificate in Education (PGCE). She had been teaching Geography for 27 years at the time of conducting this study, and was the Head of the Geography Department in her school. Her school, school B was located in an urban area in Manzini city. She taught for 28 periods per cycle and each period had 50 minutes during the time of data collection. There were 45 learners in the class.

Two lesson observations were done while Teacher B was teaching. The researcher used an observation guide and checklists (Appendices G, H, and J) with regards to what to observe during the lesson. The first lesson began at 10:00 and ended at 11:20 hours and was held in a normal Form 5 classroom. Each period had a duration of 40 minutes and this lesson was a double period. The lesson was on crop production. Teacher B introduced the lesson by giving a brief overview of the fact that "because of rapid population growth, there is a need to produce more food in agriculture. She then asked the learners to name a few limitations of this pressure to produce more". Learners responded to the teacher's question by stating that "more land needed to be cleared for agriculture which results to a strain on the natural resources". Teacher B engaged the learners throughout the lesson and they were actively participating. She further asked the learners to identify possible solutions to the problems. She did this to guide the learners' activities making the lesson more learner-centred as leaners were actively participating in the lesson. This is highly commendable in the teaching of Geography. The teacher then gave the learners a classwork on map reading whereby they were expected to identify the area most conducive for farming on the map.

What the researcher observed is that, during the presentation of the lesson, the teacher engaged the leaners throughout. The teaching was learner-centred and the teacher used a variety of teaching methods. She actually gave full participation of the learners during the teaching and learning process while using a variety of teaching methods and encouraged the learners to solve problems by themselves. She made the learners to solve real problems at their context which made the lesson lively, interesting and real. As a result, the learners were considered as the constructors of their own knowledge and the teacher as the organizer and guider of the learning activities as advocated by the theory of constructivism.

Podolsky, Kini & Darling-Hammond, (2019) assert that the use of various methods of teaching has an impact in the performance of learners in Geography. This enables the teacher to reach out to every need, interest and abilities of every learner in the classroom. This means that Teacher B promoted critical thinking and problem – solving skills in her

leaners which are very essential since communication was two-way during the teaching-learning process.

Concerning the utilisation of instructional media by Geography Teacher B, what was observed by the researcher was that during the lesson, she tried to use instructional media. There were pictures and maps showing places conducive for farming. The teacher was using a variety of teaching methods and learners were exposed to instructional media to assist them in mastering the content easily. As a result, the lesson was well understood by the learners and this was evident in the exercise that was given to them as a classwork. The use of instructional media helped the learners construct their own knowledge instead of the teacher transmitting knowledge to the learners.

Many scholars have stressed the importance of instructional media. Huang, Kuo, & Chen (2020) conducted a study where they clarified the importance of instructional media in facilitating the teaching and learning process. They concluded that the use of learning materials in Geography can make learning real and clear since each materials supports learning. They further said that teaching materials created by teachers can be guidance for students in learning so that the learning process can run communicatively. Therefore, they encouraged teachers to have the ability to compile teaching materials in order to assist learners to comprehend difficult topics in Geography. Teacher B continued to use instructional materials and engaged the learners throughout the lesson. She also gave formative assessment to the learners to test their understanding of the lesson.

5.5.1.3. Observation of lesson B 2

School B

Name of teacher: Teacher B

5.5.1.3.1 Actual classroom teaching

The second lesson began at 08:00 and ended at 09:20 hours and just like the first lesson, it was held in a normal Form 5 classroom. Each of the observed teaching periods had a

duration of 40 minutes and the lesson was a double period. The lesson was on food shortage. The lesson objectives and expected learner outcomes were clearly stated. Teacher B introduced the lesson by asking learners to explain what they understood by the terms: famine, malnutrition and starvation. The learners answered the teacher's question and defined the terms as expected. The teacher then led a discussion explaining the causes of food shortages. Learners were involved in the discussion and wrote notes on the chalkboard written by the teacher.

What was by the researcher was that, during the presentation of the lesson, Teacher B used learner-centred approaches to her teaching. The learners were actively engaged during the lesson. The teaching was learner-centred and the teacher used an integrated approach of teaching because she combined a number of teaching methods. This is a good approach to teaching Geography as the teacher reaches out to all the needs of individual learners. She linked the lesson to the context of the learners which made it easier for the learners to understand the lesson as they were able to relate it to their daily experiences. As a result, the lesson was well understood by the learners as they did well in the classwork that was given during the lesson.

Muir, Tirlea, Elphinstone & Huynh (2020) contend that using various methods of teaching encourages active learning to learners thus resulting to positive impact in the performance of learners in Geography. This enables the teacher to reach out to every need, interest and abilities of every learner in the classroom. This means that Teacher B promoted critical thinking and problem – solving skills in her leaners which are very essential in Geography teaching since Geography is a practical subject which requires active engagement by the learners.

Concerning the utilisation of instructional media by Geography Teacher B, the researcher observed that her lessons were prepared and presented using instructional media. There were pictures and maps showing places mostly affected by food shortages. The teaching process was learner-centred and the teacher engaged the learners throughout the lesson. Teacher B used teaching used a number of teaching methods and learners were exposed to instructional media to assist them in mastering the content easily. The learners were engaged during the lesson and were made to construct their own knowledge using leaner-

centred methods. This enabled them to understand even more as they fully participated in the lesson. They were able to use more than one of their senses in acquiring knowledge which maximized their understanding of the lesson. Consequently, they performed well in the classwork that was given by the teacher during the lesson.

Just like in the first lesson, Teacher B continued to use instructional materials and engaged the learners throughout the lesson. She also gave activities as classwork to the learners to test their understanding of the lesson.

5.5.1.3.2 Teaching strategies

Concerning the type of teaching methods mostly practiced by Geography Teacher B in both lessons observe, it was the mixed-method approach mainly learner-centred. Learners were actively involved in the teaching and learning process throughout the lesson. The teacher used methods such as discovery methods, discussion as well question and answer methods. Learners were given an opportunity to construct their own knowledge by giving possible solutions to problems. Such an approach promotes intellectual growth of the learners. In this case, the teacher was not a transmitter of information but an organizer and moderator in the teaching and learning process, helping learners by fostering their problem-solving abilities. Learner-centred teaching methods are valuable for Geography learners to integrate theoretical classroom lessons with the practical learning.

5.5.1.3.3 Instructional media

Regarding the utilisation of instructional media by Geography Teacher B, she did provide and used instructional media in the process of teaching and learning of Geography in the two sessions that were observed by the researcher. The teaching process was learner-centred as the learners were actively engaged under the guidance of the teacher who acted as the facilitator of the teaching and learning process. As a result, the lesson was well understood by the learners as they were allowed to construct their own knowledge. This means that Teacher B was not the transmitter of knowledge to the learners instead, she allowed the learners to actively participate in the lesson. Teacher B employed maps and pictures during the lesson to facilitate and make learning more effective, exciting and

more realistic. This therefore means that the practice by Teacher B was in line with the constructivist principles of teaching Geography.

5.5.1.3.4 Availability of physical resources

As far as the availability of teaching materials were concerned in School B, printed materials such as learners' text books, reference books, newspapers and teachers' guides were available and frequently used in teaching Geography in the school. The school also had graphic materials like charts, graph papers, maps, atlases, globes and posters. However, the school did not have audio-visual materials such as tape recorder, radio, camera, overhead projector, television, but there was a computer lab as well as a few meteorological instruments namely a Stevenson screen, rain gauge and a wind vane.

Unfortunately, a separate Geography room was not available in School B. Geography is taught in a normal classroom where the seating arrangement was not suited to practice learner-centered teaching activities. However, Teacher B tried to arrange the desks and seats in a circle to enable them to work in groups and for the teacher to supervise easily. Therefore, the classroom was conducive to perform learner-centered methods of teaching, particularly Geography teaching as the numbers were also manageable with 45 learners.

From the literature review, Erarslan (2019) considers teaching materials as an important resource in the advancement of innovation. Similarly, Abdullaev (2021) concurs regarding the importance of resources that Geography as a core subject should have materials resources that would enhance its teaching. This statement was echoed by the Geography teachers in the interviews who stated the shortage of material resources as the most serious challenge in implementing the curriculum. This means that Teacher B made an effort to see to it that the curriculum was implemented correctly.

5.5.1.4 Observation of lesson C1

School C

Name of teacher: Teacher C

5.5.1.4.1 Actual classroom teaching

As stated, table 8 is a summary of the participants' profile. Teacher C was a qualified Geography teacher holding a Bachelor of Arts in Humanities majoring in Geography. He also held a Post-Graduate Certificate in Education (PGCE) as well as a Master's in Education (Med). He had been teaching Geography for 30 years at the time of conducting this study and was the Head of the Geography Department in his school. His school, School C was located in a rural area in the Manzini Region. He taught for 32 periods per cycle and each period had 40 minutes during the time of data collection. There were 52 learners in their class.

Two lesson observations were done while Teacher C was teaching. The researcher used an observation guide and checklists (Appendices G, H, and I) regarding what to observe during the lesson. The first lesson began at 1400 hours and ended at 1520 hours and was held in a normal Form 5 classroom. Each period had a duration of 40 minutes and this lesson was a double period. The lesson was on industries. Teacher C's lesson's objectives were not chronologically arranged from simple to complex as expected but they were mixed-up. Teacher C introduced the lesson by asking learners to define an industry. Learners answered the teacher's question and explained what was meant by an industry. He did this to test the learners' prior knowledge on the subject matter. The teacher then explained the four main types of industries namely primary, secondary, tertiary and quaternary industries.

What was observed was that during the presentation of the lesson, Teacher C was using a teacher–centred approach most of the time. He did most of the talking than the leaners. The lesson was dominated by the lecture method throughout and the learners were passively listening. However, according to constructivism, learners are supposed to be actively involved in the teaching and learning process which means that Teacher C was

doing the opposite. During the presentation of the lesson, the teacher was explaining all the concepts to the learners and also gave examples himself. Even if he asked questions, he was the one who elaborated more on the answers to the questions. Learners were listening attentively receiving the information transmitted by the teacher as they copied the notes from the chalkboard.

The lecture method of teaching has been largely criticized by many scholars as it limits participation and academic development on the part of the learners. It encourages passiveness among learners as the teacher is the transmitter of information and the learners are the receivers of information instead of contracting their own knowledge. Kolahdouzan et al. (2020) assert that the lecture method is a traditional method of teaching that does not promote critical thinking in leaners because communication is often one way during the teaching and learning process. Leaners only receive information from the lecturer and regurgitate the information instead of trying to understand it.

No instructional media was utilised by Geography Teacher C during the lesson. The teaching process was dominated by talking by the teacher and writing notes on the chalkboard. The use of instructional media makes learning easier and learners are able to construct their own earning since they engage actively in the teaching and learning process. Moreover, Teachers C did not give the class activities, for instance, class work and other assignments. Learners were not given work to do that was marked by the teacher to test their understanding of the lesson. This means that no form of assessment was given during the lesson.

5.5.1.4.2 Observation of lesson C2

School C

Name of teacher: Teacher C

5.5.1.4.3 Actual classroom teaching

The second lesson began at 1015 hours and ended at 1105 hours. It was held in a normal Form 4 classroom just like the first lesson. The period had a duration of 50 minutes and the lesson was a single teaching period. The lesson was on arable commercial crop

farming. The learning outcomes were not clearly stated by the teacher and the lesson objectives were all on lower order no higher order objectives were stated. Teacher C introduced the lesson by asking learners to explain the difference between subsistence and commercial arable farming. The learners responded to the question and differentiated between subsistence and commercial arable farming. The teacher then wrote notes on the chalkboard and the learners copied the notes for the rest of the lesson.

What this researcher observed during the presentation of the lesson was that, again, the class was dominated by the lecture method. The only time the teacher engaged the learners was in the introduction of the lesson. The teacher was a transmitter of information and the learners were passively listening to the teacher. He explained to the learners what intensive cash crop farming is in comparison with extensive farming. In the lesson plan, Teacher C had stated guided discovery and demonstration as the teaching methods to be used during the lesson, however none of these were used during the lesson. Moreover, teaching aids were not available for the lesson except for the learners' textbooks. No form of assessment was given to the learners during the lesson.

With regards to learners' engagement in the teaching and learning process is, it was observed that the learners' participation was so minimal. They were not actively carrying out activities, asking questions or giving suggestions and comments during the lesson. They would only answer questions briefly without much elaboration and the teacher was always the one elaborating on the answers. As already stated above, learners were passive during the teaching and learning process and the whole duration of the period was covered by the teacher delivering the information.

5.5.1.4.4 Teaching strategies

Regarding the type of teaching approaches mostly practiced by Geography Teacher C in both lessons, the researcher noted that they used the lecturer method, coupled with writing notes on the chalkboard. Learners were passive listeners and receiving the information transmitted by the teacher while copying notes from the chalkboard. Hence, the learners viewed the teacher as the total authoritarian in the classroom as all the

information and activities come from him. The lecture method of teaching does not encourage active engagement of learners during lessons.

Geography teaching should always be dominated by learner-centred teaching methods. These are valuable for Geography learners to integrate theoretical classroom lessons with the outdoor practical learning so that they master the required skills. Sakata et al. (2021) support this view when they state that learner-centred methods enable learner-learner interaction and teacher-learner interaction, which is very useful to learners as it develops learners' creativity, critical thinking abilities, self-confidence, independent learning, commitment and responsibility of their own learning.

This means that Teacher C employed traditional methods of teaching mainly the lecture method for teaching Geography in his classroom instead of the preferred contemporary teaching methods and techniques as advocated by constructivism. As a result, the learners did not master the concepts during the lesson.

5.5.1.4.5 Instructional media

Regarding the application of instructional media by Geography Teacher A, no instructional media was used in the process of teaching and learning of Geography in the two sessions that were observed. The teaching process was dominated by talking by the teacher while for most of the time, the learners were passively listening. It is more likely that the lesson was not well understood by the learners and this promoted rote learning. This means that Teacher A was transmitting knowledge to the learners instead of allowing learners to construct their own knowledge. Bijsterbosch, Béneker, Kuiper & van der Schee (2019) clarify that instructional media are no doubt the information transmitters that facilitate the teaching and learning process. The use of maps, globes, charts, models, meteorological instruments and technology should be employed in the teaching of Geography to facilitate and make learning more effective, exciting and more realistic. This therefore means that the practice by Teacher A is against the constructivist principles of teaching Geography. Therefore, learners were made to be passive participants such could contribute to poor performance by learners in examinations.

5.5.1.4.6 Availability of physical resources

As far as the availability of teaching materials in School C was concerned, the school had printed materials such as learners' text books, reference books, newspapers and teachers' guides and are frequently used in teaching Geography in the school. However, graphic materials like charts, graph papers, maps, atlases, globes and posters, not all of these are available in the except for charts, a few maps and atlases. Nonetheless, none of these were used by Teacher C during the observed lessons. Moreover, the school did not have audio-visual materials such as a tape recorder, radio, camera, overhead projector, television, a computer lab as well as meteorological instruments.

Geography is well taught in a separate Geography classroom or laboratory, however, in School C, none of these was available. In fact, the subject was taught in a normal classroom and the seating arrangement was not suited to practice learner-centered teaching activities. The desks and seats were arranged straight in rows making it very hard for the learners to seat in a circle to allow them to work in groups and for the teacher to move easily as he supervise the groups. For that reason, the classroom was not conducive to perform learner-centered methods of teaching, mainly Geography teaching.

Material resources are very important in the teaching of Geography to enhance its teaching. Without a Geography room equipped with furniture designed for practical learning and storage of materials such as maps, charts, graph papers, maps, atlases, globes and posters, it would be very difficult to teach the subject. This statement was supported by the Geography teachers in the interviews, where they stated that the shortage of material resources as the most serious challenge in implementing the curriculum.

5.6 DATA INTERPRETATION AND DISCUSSION

The following involved the interpretation and discussion of the data that had been presented in the preceding section. In this study, data analysis tried to give a detailed understanding of curriculum changes and implementation in Eswatini, and how Geography was taught in the selected secondary schools. This section discusses the

research findings of the study in the light of the literature reviewed on curriculum change and its implementation, which was covered in chapter three. The discussion covers data analysed from documents, teacher observations and interviews. It include factors which may have contributed to either enabling or hampering teachers' curriculum implementation. The data interpretation and discussions organised in this section was presented in terms of the themes that developed from the documents analysed and from themes and categories as defined by the participants.

5.6.1 INTERPRETATION OF DATA FROM DOCUMENTS

5.6.1.1 Changes in the GCE, IGCSE, SGCSE / EGCSE as a Teaching Guide

In analysing the aims of the three syllabi of Geography (Table 1), it was noted that the GCE Geography syllabus is more concerned about knowledge acquisition as all its objectives were about gaining knowledge and understanding. On the other hand, the IGCSE and EGCSE geography syllabi demonstrated similar assessment and similar aims although there were slight differences in the way they were emphasized. The EGCSE shows more specific aims and they are more detailed than the IGCSE geography syllabus. Also, the EGCSE has seven in all whereas the IGCSE has five, all of which are contained in the EGCSE. It can be seen that in the EGCSE, there is more adaptation to the local and regional conditions. Also, it uses of concepts, systems, spatial distributions, relationships, interactions are brought in the EGCSE syllabus. The EGCSE has been localised in terms of its aims as it includes an understanding of issues specifically to Eswatini, and emphasizes on their values and culture. Therefore, this means that there is a significant change in the different syllabi.

5.6.1.2 CHANGES IN THE ASSESSMENT OBJECTIVES OF THE GCE, IGCSE, AND EGCSE SYLLABI

In comparing the assessment objectives of the three syllabi, it was noted that in the GCE Geography curriculum, the assessment objectives were not stated. It is therefore for that reason that only the IGCSE and EGCSE syllabi were compared as shown in (Table 2). Looking at the two syllabi, IGCSE and EGCSE, it was noted that they both emphasized

four assessment objectives namely knowledge with understanding, analysis, judgement and decision making as well as investigation and evaluation. However, there are slight differences in the detail under these objectives. As an example, the IGCSE, under knowledge and with understanding has only four specific objectives while the EGCSE has seven. Moreover, the EGCSE objectives are more detailed on how each assessment objective is to be attained, and very specific to place and specifically to the region and country. In the analysis, it says specifically what is to be analysed.

5.6.1.3 OBSERVED CHANGES IN LEARNING OUTCOMES AND APPROACHES IN THE TEACHING OF THE GCE, IGCSE, AND EGCSE SYLLABI

Analysis of the observed changes in learning outcomes (Table 5) and approaches in the teaching (Table 6) of the three syllabi revealed that although having certain aspects in common, they differ significantly. The EGCSE syllabus revealed a number of unique features to the GCE syllabus. The first is that in the objective statement, in the EGCSE syllabus, more emphasis has been put on skills development whereas in the GCE syllabus more emphasis is on knowledge acquisition. The most distinct feature is the promotion of a new learning philosophy in the design of the EGCSE syllabus which strongly encourages and develops students' autonomous learning. Based on the passive learning habits that the GCE syllabus possesses, this autonomous learning perspective would encourage students to be more independent and proactive rather than exclusively dependent on teachers.

The GCE syllabus is teacher-centred whilst the EGCSE syllabus is child-centred. With the GCE syllabus, the teacher is regarded as a total authoritarian which means that formal power is vested and used by the teacher. The teacher is the one who deliver the information to the learners who are in most cases passive listeners without much involvement in the teaching and learning process.

On the other hand, the EGCSE syllabus is learner-centred in that it encourages practical activities rather than acquisition of knowledge. The teachers use a structured style of teaching based on problem solving methods which require reflective thinking.

Philosophically, these two syllabi adopted different philosophies. With the GCE syllabus, the designers of the syllabus used an idealist approach because its emphasis on learning is based on recalling knowledge and ideas and abstract thinking is the highest form. Consequently, the EGCSE syllabus adopted a number of philosophies to its curriculum. This means that it reflects a combination of many philosophies. It has adopted the realist approach. According to realists, the world is made of real, substantial material entities and exists independent of the mind. To most realists, the curriculum has to adjust the individual to his environment. This means that man comes to know through sensory experiences. That is why realists put heavy emphasis on practical activities. Therefore, EGCSE has adopted realism in its approach. Pragmatism is another philosophy that has been adopted by the new program. The syllabus requires the use of a structured style of teaching based on problem solving methods which require reflective thinking. This means that it is cognitive oriented in its approach to learning.

The EGCSE syllabus endorsed the learner–centred approach and also discouraged the conventional practice of lecturing during most of the class lessons, instead encouraging student participation. Teachers are intended to be facilitators, organisers rather than absolute classroom instructors. This learner-centeredness is in fact a real distinguishing factor from the GCE syllabus with its traditional practices where teaching had always taken the form of lecturing with students sitting and listening silently. This new approach is more practical where students are expected to be active players in classrooms by allowing more student interactions and more skills based.

Therefore, the introduction of the SGCSE Geography curriculum was done to correct the weaknesses of the GCE curriculum. To address the striking weaknesses of the previous curriculum, the EGCSE was designed such that it clearly links learners' education experiences with the broader country development strategy and sector strategy that spell out the rationale, philosophy, objectives, scope, balance, assessment and pedagogy. Therefore, the new SGCSE curriculum is relevant because it prepares learners for higher levels of education.

One can conclude that the nature of the EGCSE Geography curriculum in terms of the organisation of the content, the methods designed in the syllabi, the instructional media found in the syllabi as well as the assessment techniques identified in the syllabi are appropriate for the practice of learner-centered methods of teaching. However, the time allocated was insufficient time allotment in the syllabus considering that more practicals have to be done during the teaching and learning process.

5.6.1.4 Interpretation of data from the lesson plan

The analysis of the results from the lesson plans of the Geography teachers revealed that teachers planned for their lessons. This was evident in the documents of the participants since the researcher asked for the lesson plans from the participants. All the participants had planned their work. The lesson plans revealed that the Geography teachers were greatly committed to their work to ensure preparedness before lesson delivery. During the interviews, they stated that planning was compulsory and that HODs check lesson plans before lessons.

However, not all teachers were able to plan correctly. There were those who planned exceptionally well while some struggled. For example, some failed to state SMART objectives while others stated objectives that did not help the learners to grow cognitively in the learning process. Moreover, some teachers planned to use different resources in their lesson plans, however not all the resources were available and used during the presentation of the lessons. They also used teacher-centred methods of teaching whereas the curriculum advocated for learner-centred approaches to teaching. Furthermore, some teachers did not include assessment in the lesson plans. Even in the classroom during the lessons, some teachers did not test for understanding of the content especially the skills. It was also observed that they asked questions that mostly tested for knowledge acquisition. This means that the teachers were not sure of the learning outcomes and assessment standards that they were addressing in the preparation of the lesson plans. It can concluded that what was presented in the lesson plans was not what the teachers did in class.

What was worth noting is that, those who struggled with proper planning were those who had not attended the workshops at all and those who had attended but said they did not benefit much from them. Teacher A and Teacher C had some challenges in their planning while Teacher B did not have challenges since she attended some training on the implementation of the EGCSE curriculum. She prepared her lessons according to the prescribed format. The lesson objectives were all measurable and from simple to complex. She employed learner-centred teaching approaches throughout the lesson. She also gave learners some formative assessment during the lesson.

5.6.2 INTERPRETATION OF DATA FROM NATIONAL EXAMINATION RESULTS FOR GCE, IGCSE AND EGCSE

5.6.2.1 Research question: Is there a difference in performance of learners in the different curricula?

Geography has been one of subjects with the best learner performance for a long time in the old curriculum between 2002 and 2006. However, things changed in 2007 when the SGCE was written for the first time in the country. The excellence rate dropped to 17.90% showing a drastic decline in the performance of the learners. A better picture on the effect of the changed curriculum on performance can be appreciated through the analysis on the trends in performance of the students through the curriculum changes, from GCE to IGCSE/SGCSE from the year 2002 to 2020. It should be noted that the difference between IGCSE and SGCSE is not much as the later involved more of localising the syllabus. Also the IGCSE was in use only for three years before localisation to SGCSE/EGCSE. The results indicated that curriculum changes had resulted in the poor performance. As an example, failure rate in terms of those who obtained passes was lower during GCE curriculum, and rose to the highest in 2007 when IGCSE/SGCSE was introduced, and this has remained a challenge for several years now. Similarly, the percentage pass rate in terms of those who obtained credits was higher during GCE but declined abruptly from 2007 with the introduction of IGCSE/SGCSE. This means that the percentage of students who failed also increased sharply from 2007 when the IGCSE

was introduced. These results indicate that while many students were passing, the quality of passing was lower, as majority received lower grades in the new curriculum.

5.6.3 INTERPRETATION OF DATA FROM ECESWA EXAMINATION REPORT

As a body responsible for the external examinations, the Examination Council of Eswatini (ECESWA) analyses external examinations for the purposes of compiling reports on how schools have performed. According to the ECESWA examination report (Examination Council of Eswatini (2020), learners' performance was not at all satisfactory as learners performed poorly. It was noted that most of the learners had challenges with the items on skills acquisition thus contributing to the low credit pass rate of Geography as a subject. Learners performed better in items that required recall of knowledge and performed poorly on items that required application of skills.

When learners' internal school's prepared examination results were compared with external examination results, leaners performed much better in their school's prepared examinations than in the ECESWA (external examinations) results. This raises a lot of questions regarding the teachers' prepared internal examinations if they were prepared according to the ECESWA national examination standards. There might be a problem in the implementation of Geography in the schools. Therefore, with reference to the research question on whether there is a difference in performance of students in the different curricular, it can certainly be stated that there was a significant difference in the performance as the results showed a drastic decline since the introduction of the new curriculum. This is very concerning because continuous failure by students to get good results in Geography, particularly credit passes, is likely to instill negative attitudes in learners towards the subject. Even those who wish to pursue a career in Geography may fail to do so if they fail.

5.6.4 INTERPRETATION OF DATA FROM THE INTERVIEW SCHEDULE

5.6.4.1 Geography as a unique subject

Concerning the unique nature of the subject, many respondents undoubtedly stated that Geography is unique from other disciplines in terms of its contents, teaching methods, resources, school and classroom facilities, instructional media, teaching and learning activities as well as assessment standards. Moreover, the respondents reported that most Geography contents were not found in the school compound and inside the walls of the classroom. Therefore, Geography contents need practical activities because most Geography fields are found outside the classroom in the real world. For that reason, Geography needs learning and teaching strategies that support practical activities and teachers who demonstrate knowledge of the subject matter, pedagogical skills, positive attitude and commitment to implement the Geography curriculum through learner-centered approaches.

However, the results revealed that most teachers frequently practiced the lecture method of teaching. One of the reasons brought forward as to why teachers practiced the lecture method of teaching included that they wanted to finish the syllabus on time to be ready for the examinations as the other methods are time-consuming. Another reason was that some other methods of teaching were seen as not effective as only learners who were high achievers benefited from them. For example, the group work was dominated by few high achievers while the medium and low achievers are not active at all during group work. This means that even though the teachers were well aware of the unique nature of the subject, and the expectations on how to teach it, they did not adhere to the objectives and specifications of the syllabus in their classroom teaching, which means that they were not knowledgeable about the syllabus to give it the treatment it deserved.

5.6.5 EXTERNAL FACTORS AFFECTING CURRICULUM IMPLEMENTATION

5.6.5.1 Testing (High-stakes-examinations)

Examinations or tests exert a considerable impact on what and how teaching and learning are conducted in the classroom. Tests can be powerful determiners, both positively and negatively of what happens in the classroom. This means that tests and examinations have an effect on teaching and learning, the educational system, and the various stakeholders in the education process. This impact of testing suggests that teachers and learners do things they would not necessarily otherwise do because of tests. When teachers were asked as to whether tests and examinations had an influence on how they conducted teaching and learning in the classroom, their response was that tests and examinations had an influence on how teachers conducted their teaching.

The participants explained their reasons about how they felt about testing. They highlighted some consequences of testing on teaching. They stated that for them, the fear of poor results and the associated guilt, shame or embarrassment, might lead to the desire for their learners to achieve high scores in whatever way seems possible. That is why some teachers had a tendency to teach to test, which is an impediment to introducing new instructional practices.

5.6.5.2 Resource Support

The results of this study discovered that shortage of resources had a significant limitation to the practice of the learner-centered methods of teaching. Most resources were unavailable in the visited schools while few were inadequately available. Regarding the availability of physical resources such as a Geography room and a weather station, these were not at all available in all the schools. Geography was taught in a normal classroom in all the schools where the seating arrangement was not suited to practice learner-centered teaching activities. However, in school B, a library was the only physical resource available even though it had limited reference books. The results also revealed that there was a shortage of a number of instructional media such as maps, Globes, charts, graph papers, atlases, globes and posters. However, printed materials such as

learners' text books, reference books, newspapers and teachers' guides were available and frequently used in teaching Geography in the schools. Interviewed Geography teachers also mentioned the shortage of material resources as the most serious challenge in implementing the curriculum.

5.6.5.3 Teacher training (Professional development)

The findings of the study also revealed that that teachers were not ready to practice constructivist methods of teaching. The study discovered that teachers were not ready to implement the new curriculum mainly because they had not been trained on learner-centred methods of teaching and continuous assessment techniques. They expressed a great concern in that the syllabus had resulted to new demands and many challenges. Therefore, lack of readiness by the teachers was considered a hindrance to practice learner-centred methods of teaching in Geography teaching and teachers were not confident enough. Many teachers were used to teacher- centered methods of teaching and as a result, they were not happy about the change and not at all committed to practice learner-centered methods of teaching.

From the literature, it was said that in order that for a curriculum policy to be converted into practice to ensure successful implementation and continuity of any curriculum innovation, it is of utmost importance that teachers receive in-service training and provision of continuous support and professional development. Without teacher professional development, there can be no proper curriculum implementation. The teachers interviewed in this study identified major constraints preventing them from properly implementing the Geography curriculum. These included lack of training, misconceptions about the EGCSE and little time and expertise for professional development. The majority of the reasons were connected with teachers' lack of in-service training to retrain and refresh themselves. Without such professional upgrading, it was found to be almost impossible for these geography teachers to implement practical activities in their classrooms.

5.6.6 INTERNAL FACTORS AFFECTING CURRICULUM IMPLEMENTATION

5.6.6.1 Involvement and ownership of innovation

Teachers were asked of the extent to which they were involved and owned the implementation of the EGCSE curriculum. The results revealed that they were not fully involved in the decision making process towards the implementation of the new curriculum. They believed that they were not part of the innovation except for when they had to implement it in the classroom. This is because not all the teachers were trained for the implementation of the new EGCSE geography curriculum. Therefore, the teachers believed that they were not involved in this innovation hence they did not own it.

Teachers felt this innovation was imposed to them because it was a top-down innovation not a bottom-up innovation. Literature background indicated that educational innovations that are not introduced properly tend to be rejected by teachers because they do not feel like they were part of the implementation and then put less effort towards the implementation process. This means that such an approach has the unlikelihood of generating any teacher ownership or commitment as teachers may considered the innovation to be the business of policymakers rather than of themselves. The data from the teacher interviews also confirmed that teachers tended to regard the innovations as the governments' responsibility and therefore failed to take an initiative in the process of implementation themselves. This suggests that for these participants, success on implementation depended on these internal factors.

5.6.6.2 Teachers' beliefs and values

Concerning the value of learner-centred methods of teaching, all the respondents stated that learner-centred methods of teaching had a great value in the teaching of Geography. The EGCSE geography curriculum emphasised that teaching in the classroom should be centred on learners, reduce teachers' speaking time and encourage learner participation. Geography should be taught as a practical subject. When teachers were asked whether Geography should be taught as a practical subject, the responses from the teachers were

in support of the statement. There was no teacher who disagreed that geography should be taught as a practical subject. This means that teachers are aware that the subject is more practical than theoretical in nature. Discussions with individual teachers indicated that they adopted a teacher-centred approach, which means that the subject was not implemented correctly.

5.6.6.3 Teachers' understanding of innovation

Another concern was that of teachers' knowledge of the syllabus. Specifically, on the subject of knowledge and understanding of the syllabus that the teachers had, this research discusses behavior of learners and teachers in the classroom as it impacts the way learners acquire skills related to Geography as well as how they explore their knowledge and understanding of especially the EGCSE geography syllabus. Out of the 3 Geography teachers who participated in the study, only 1 said that she understood it, although she still had some areas of concern in which she was still not confident. The other teachers expressed that they were still not confident in teaching the new syllabus. When asked reasons behind their challenges, the teachers said that the main reason was that the training was not enough while some had not received training at all.

5.6.6.4 Teachers' attitudes towards innovation

When asked if the introduction of the new Geography curriculum was a good idea, all the respondents stated that the EGCSE curriculum was very relevant to the current situation of the country and to the world at large. This is because it engages learner-centred methods of teaching that encourage learner participation and interaction amongst themselves, develop learners' creativity, develop critical thinking abilities, self-confidence, learners' independent learning abilities, learners' commitment and responsibility of their own learning. They said that such skills prepared the learners for the world of work.

Teachers were asked if they enjoyed teaching the old or the new geography syllabus, a majority of them said that they did not enjoy teaching the new syllabus but preferred the

old one. Reasons put forward by the respondents were that this new syllabus was more challenging than the old one and that some of the requirements were out of their reach such as the internet which was a popular challenge for the teachers especially those based in the rural areas.

Other challenges included resource support and adequate teacher training to equip the teachers for the new syllabus. However, the teachers believed the syllabus was quite relevant to the needs of the country and to the learners. They said the skills emphasised in the assessment objectives of the syllabus were the ones that were required by the labour market. Their greatest concern was that they did not receive adequate training to equip them for the new syllabus. They said the training they received was not enough to make them confident in implementing the syllabus in the classroom. This means that teachers supported the idea of the new curriculum, however due to the existing challenges they were not happy about the way in which the curriculum had been introduced to them. They felt they were not involved in the planning yet they were the primary implementers of the curriculum.

5.7 SUMMARY

This chapter has presented data that was gathered through interviews, observation and document analysis. The data obtained through observation schedules comprised of lesson plans, lesson presentations along with assessment. Data gathered from interviews with Geography Teachers, lesson observations and document analysis from three schools under investigation were analysed to answer the research questions for the study. The data was analysed to identify the problems that obstruct proper implementation of Geography syllabus in secondary schools. The findings discovered lack of resources, lack of teachers' training, teaching for examinations, lack of involvement in innovation, teachers' beliefs and attitudes towards innovations, shortage of time for learners' activity as well as understanding and ownership of innovation as the main hindrances in the practice of constructivist methods of teaching to effectively implement the Geography syllabus. As a result, Geography teachers continued with the

old tradition of teaching where learners were recipients of knowledge rather than applying it to solve problems.

Consequently, teachers are using teacher-centered methods of teaching and learners are passive listeners as teachers transmit information. This has resulted to high failure rates in external examinations because external examinations are testing skill acquisition which teachers are failing to teach and assess in their teaching. Moreover, efforts were made to answer the five research questions in this study by linking the relevant data to each of the research questions to ensure meaningful interpretation of data. The following chapter presents the summary, concluding remarks according to the study questions as well as recommendations.

CHAPTER SIX

SUMMARY, CONCLUDING REMARKS AND RECOMMENDATIONS

6.1 INTRODUCTION

The main objective of this study was to analyse changes in the Geography curriculum taught in Eswatini so as to establish the nature of the changes, assess the relevance and implementation of the EGCSE Geography curriculum and how Geography teachers have adapted to the changes (see 1.4.2). Chapter five presented the research findings from interviews with Geography teachers, observations of lessons and teaching materials and analysis of documents of the educators as described in chapter four. The findings of the study are qualitatively presented in line with the five objectives of the study (see 1.4.2). In order to do this successfully, the main research questions are re-stated as a background to the presented findings. The data interpretation and discussions are presented in terms of the themes that developed from the documents analysed and from themes and categories as defined by the participants. Conclusions and recommendations were then drawn and presented and they emanated from the previous chapters.

Therefore, this chapter aims at presenting a brief summary, conclusions and recommendations of the study. The findings of the study from all the data collected using the different data collection instruments were consolidated in order to make recommendations of this study. Furthermore, conclusions are reached based on the findings in relation to the research questions and limitations of the study. With regard to the conclusions arrived at, relevant recommendations and avenues for further research in relation to curriculum changes and implementation in secondary schools are suggested with reference to the objectives of the study. This chapter also contains the concluding remarks as well as the summary of the study.

6.2 SUMMARY OF RESEARCH FINDINGS

This section provides a summary of the research results in presenting key scholarly and empirical findings that were written from the interpretation of the data. The results of the study revealed that there had been significant changes from the GCE curriculum to

EGCSE. These changes are in terms of the aims, assessment objectives, teaching approaches as well a learning outcomes. When it comes to the implementation of the EGCSE curriculum in the classroom, teachers habitually practice the lecture method of teaching and assessment was dominated by summative assessment techniques. There were a number of challenges pointed out by the Geography teachers that hindered the effective implementation of the curriculum. The findings showed that these challenges were as a result of external and internal factors. For instance, testing, lack of resource support, teaching approaches, professional development needs, teachers' beliefs and decision making, understanding and ownership of innovation as well as participation and involvement in the innovation had the greatest influence. As a result, learners failed the subject and their failure could have largely been due to teachers' dominance which made leaners to be passive listeners resulting to incompetence in National Examinations. The study has attempted to answer all the research questions satisfactorily.

6.2.1 Key scholarly review findings

Up to the present time, little is known about Geography curriculum implementation in terms of studies that have been conducted in Eswatini. For that reason, this study has implications in the context of Eswatini as well as in other contexts. This section of the research presents the implications of the study within a broader context in the field of curriculum implementation. Published literature reveal that challenges and new demands are likely to occur when a proposed curriculum is implemented, in content in all subjects (Tse, & Hui, (2016). Raselimo, (2017) suggested that when curriculum changes are being introduced, it is advisable that teachers should be given enough time to understand and reflect on the implications of change for their practice.

Taking into consideration the multiple challenges facing the implementation of innovations and efforts to improve implementation, Putwain, & von der Embse, (2019) highlighted some facilitating factors namely: that the innovation is not too ambitious and is adequately supported by secondary innovations, has appropriate time frames and aims to get early successes that result to positive attitudes and momentum. This study confirmed the claims of these researchers as it revealed a gap between the planned Geography

curriculum proposed by policymakers and that endorsed and taught by Geography teachers.

Research that assess causes or factors that hamper especially the successful implementation of an educational curriculum is very important. Uncovering what facilitates or impedes teachers' faithful implementation, policymakers and administrators likely suggest recommendations that enforce their appropriate professional development partly through programs that ought to support implementation. Research-informed recommendations on these measures most likely transform teachers into practitioners of new curricula in a gradual and ongoing manner. For instance, the current study looked into external and internal factors that may have affected teachers' implementation in the context of Eswatini. These factors were qualitatively explored using qualitative tools such as conducting interviews with teachers who taught Geography, observation and document analysis to discover.

Geography is a practical subject hence the constructivist methods are useful for Geography learners to acquire skills for life-long learning. Constructivism has implications in education on how teachers teach and learners learn. The focus on learner - centered approach is one of the most crucial contributions of constructivism. This theory has direct implications to education as it encourages the use of learner-centered strategies such as problem solving which are relevant in the teaching and learning of Geography. Therefore, this theory is an acceptable framework for this research since it gives the foundation for a variety of learner – centered methods that make learners constructors of knowledge such as field excursion, practical and problem-solving.

What is unique about this study is that, it investigated factors that contributed to the prediction of teachers' implementation attempt. From the literature review, factors affecting implementation of a curriculum were uncovered to be both external and internal. These acted as a guide to this investigation and they formed the conceptual framework of factors influencing implementation in the context of Eswatini as they assisted in the designing of the research instruments. These factors were observed on teachers' perceptions on understanding the complexity of the innovation. This is because understanding the innovation by teachers is of utmost significance. The factors

influencing curriculum implementation were incorporated into the framework. For instance, based on the internal and external factors, in – service training, resources, testing, and textbooks were classified as external factors, and attitudes of teachers, understanding of the innovation, and ownership of innovation were put under internal factors. The conceptual framework below (Figure 3.1) demonstrates the relationship between the key concepts of the study.

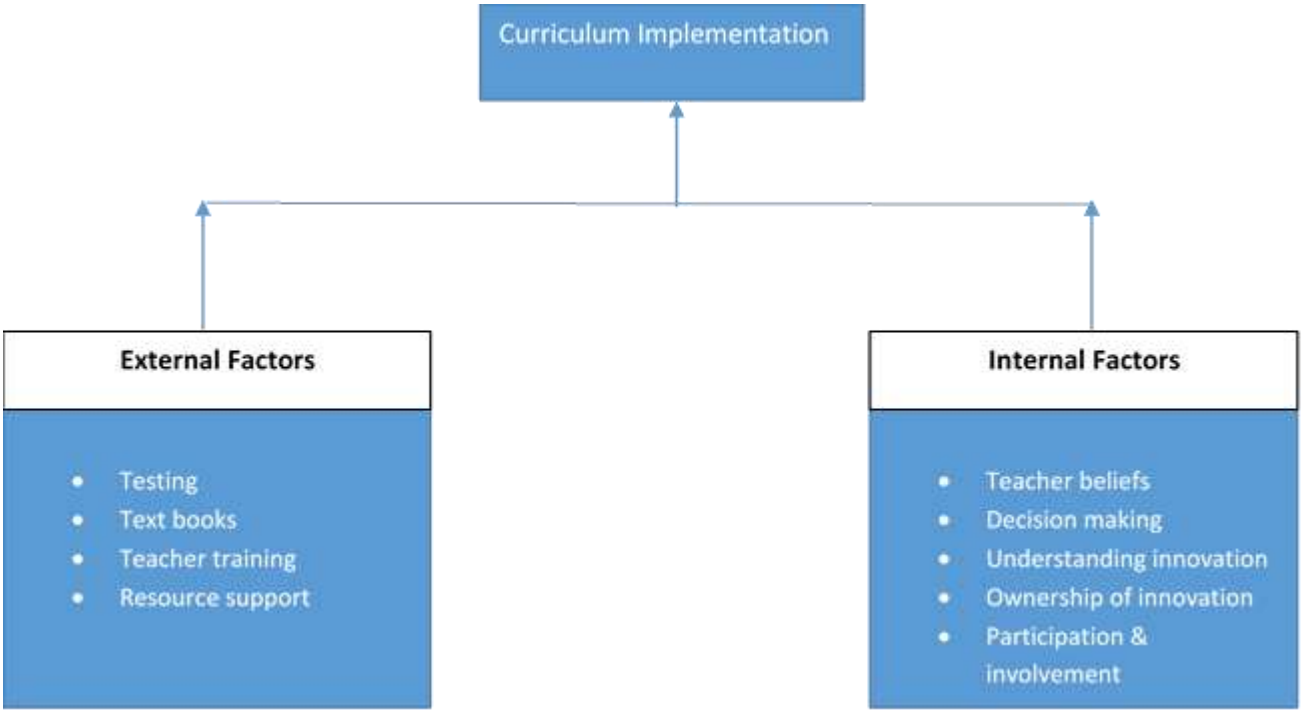

Figure 6.1: Conceptual framework of factors affecting curriculum implementation. Source: Developed by the researcher from the data.

6.2.2 Key empirical findings

This study is the first empirical study to explore curriculum changes and implementation of Geography curriculum in the context of Eswatini. There has been changes in the curriculum while we do not know if they are implemented correctly or not. Therefore, this study contributed to this gap in information regarding curriculum implementation in

Eswatini. It sought to find out whether there had been any challenges in the implementation. It might provide information which could be useful for policy makers.

The results of the study indicated that lack of resources, lack of teachers' training, teaching for examinations, lack of involvement in innovation, teachers' beliefs and attitudes towards innovations, shortage of time for learners' activity as well as understanding and ownership of innovation were the main factors affecting the practice of constructivist methods of teaching to effectively implement the Geography syllabus. As a result, Geography teachers continued to use the old traditional methods of teaching where learners are recipients of knowledge rather than applying it to solve problems.

According to the constructivist theory, teachers should use learner-centred approaches of teaching and learning. Through it, learners are encouraged to construct knowledge by themselves instead of passively receiving information from teachers. In agreement with constructivism, teachers are supposed to be facilitators of the teaching and learning process. However, the results of this study uncovered that, what the participant teachers practiced in the classroom was not supporting the constructivist theory. Most of the time, the teachers practiced traditional methods of teaching, particularly the lecture method. This method of teaching encourages passiveness among learners as they receive information from the teacher instead of constructing their own knowledge as per the dictates of the theory. It is possible that it is largely this approach among other factors that has resulted to the observed high failure rates in external examinations. Such a belief is based on the background that external examinations test skill acquisition and unfortunately, the interviewed teachers failed to teach and assess in their teaching resulting to incompetent learners. This means that there were inconsistences between the theory and the actual classroom teaching as practiced by the Geography teachers during the teaching and learning process.

Hence, the results of this study will help contribute knowledge on this gap in information of the theory of constructivism and actual teaching practiced by Geography teachers in the classroom. In fact, it will most likely inform all stakeholders particularly teachers, the Ministry of Education, policy makers and other experts in the education sector to discover opportunities of developing other effective strategies of applying the constructivist

learning approaches in the teaching of Geography. Consequently, the results of this study could inform concerned parties such as curriculum designers, teachers and learners on how to solve problems resulting to the practice of teacher-centered methods and how best they can use learner–centred methods of teaching in Geography lessons.

6.3 RESEARCH CONCLUSIONS

This section presents the major conclusions of this study with reference to the research questions as stated in chapter one (see 1.4.1). This study explored curriculum changes and implementation of Geography curriculum in the context of Eswatini, and the objectives were as follows:

- To identify the changes that have occurred in the geography curriculum.
- To find out if teachers were well equipped for the new curriculum
- To assess if the changes are well implemented.
- To evaluate the challenges in implementing the new curriculum.
- To know the difference in performance of students in the different curricula.

The aim of the study was to answer the following research questions as pointed out in chapter 1 (see 1.4.1):

- What are the changes that have occurred in the geography curriculum?
- What kind of support was given to the teachers to equip them for the new curriculum?
- How have the changes been implemented?
- What challenges are encountered in implementing the new curriculum?
- Is there a difference in performance of students in the different curricula?

In accordance with the major findings presented in the preceding section, conclusions were drawn as answers to the initial research questions as stated above. Based on the interviews, observations and document analysis, data was presented, analysed and interpreted in chapter five and the following conclusions were drawn:

6.3.1 What are the changes that have occurred in the Geography curriculum? (see 1.4.1)

This section discusses the analysis of research question one which led to this conclusion of the report. The results indicated that indeed there were changes from the GCE curriculum to the EGCSE curriculum. These changes were in terms of the aims (see 5.2.1.2), teaching objectives (see 5.2.1.3) teaching approaches (see 5.2.1.4) as well as learning outcomes (see 5.2.1.5). The observed changes were more about the way that some aspects of the subject of Geography were delivered rather than about coverage. The change was mostly about the fact that learning is not about facts acquisition and skills but is about combining sound enquiry research skills and exploration. The changes were a new flexible curriculum that was aimed at changing the approach of teaching in the classroom.

It was found that the rules of the new curriculum were designed in such a way that it impacted more on the way teachers conducted their teaching. It expected teachers to use learner-centred methods of teaching. However, the results uncovered that some of the teachers were still more comfortable with traditional methods particularly the lecture method and therefore ignored the recommended new method. This compromised the acquisition of skills as per the expectations of the theory of constructivism emphasised by in the new curriculum.

6.3.2 What kind of support was given to the teachers to equip them for the new curriculum? (see 1.4.1)

To ensure smooth implementation of a curriculum, policy makers should ensure that teachers are provided with the appropriate professional development programs and other necessary support to help them in understanding and carrying out the policy. These programmes would ensure that teachers have a thorough understanding of the syllabus to be implemented. However, the findings of this study indicated that Geography teachers had a limited understanding of the new EGCSE curriculum. From the study findings, based on the research objectives, the researcher concluded that most of the selected Geography teachers were not conversant with the new curriculum (see 5.4.1.2).

The study revealed that the participant teachers were not ready to practice the constructivist methods of teaching. This was mainly because they did not get enough trainings to refresh their profession regarding learner-centred methods of teaching and continuous assessment techniques. Their greatest concern was that the syllabus had brought along new demands and many challenges. As a result of frustration and lack of requisite training, most of the teachers persisted on using teacher-centered methods of teaching. It is without a doubt that they were not happy about the change and not at all committed to practice learner-centered methods of teaching. The teachers identified major limitations hindering them from properly implementing the Geography curriculum. These included lack of training, misconceptions about the EGCSE and little time and expertise for professional development. Reviewing published literature showed that it is rarely possible to implement a curriculum without ensuring effective and sustainable professional development of teachers. Clearly, without the proper and relevant professional upgrading, it was found to be almost impossible for these Geography teachers to implement practical activities in their classrooms.

Moreover, the findings showed that the teachers' attitude towards the implementation of the EGCSE curriculum was somehow negative due to misconceptions and that most had been left out in the development and implementation of the revised curriculum. This resulted to teachers' resistance towards the change and the teachers' attitudes were responsible for the inappropriate implementation of the new innovation.

6.3.3 How have the changes been implemented? (see 1.4.1)

Geography is a practical subject and the preparation of the EGCSE syllabus encourages teachers to be facilitators of the practice of learner-centered methods of teaching. Nevertheless, the results of this study showed that for most of the time, the Geography teachers practiced the traditional methods of teaching. Their justifications were: lack of training about learner-centred methods of teaching and continuous assessment techniques, lack of instructional materials, inadequate time allocated to teach Geography, congested classrooms and learners' incompetence to practice independent learning.

Consequently, teachers who had a shortage of resources reverted to traditional methods of teaching since it was difficult for the teachers to implement the new curriculum. From classroom observations it was uncovered that the practice of teacher dominated method of teaching makes learners to be passive receivers of information. Learners were not afforded the opportunity to think critically and construct their own knowledge. Moreover, challenges such as lack of instructional materials, congested classrooms, and inadequate time allocated contributed towards teachers' practice of teacher-dominated methods of teaching in the teaching of Geography in the sampled Eswatini Secondary schools. Teachers could not attend to individual learners and form small groups because of the big numbers and congested classrooms.

According to literature, formative assessment is very important in the teaching and learning processes in general and that of the subject of Geography in particular. However, this study revealed that teachers failed to assess learners' academic abilities using continuous assessment methods. The importance of feedback as means of motivation and effective teaching cannot be over emphasised. It actually gives direction to learners on their academic progress.

The traditional methods of teaching make learners to be recipients of information depending on teachers as total authoritarians in the classroom. This means that learners' competency in terms of academic achievement is compromised as they were not able to acquire the much needed skills, hence this could have had a significant contribution to their scoring very low marks in the National Examinations. In contrast, the results revealed that learners achieved high marks in the examinations that were prepared by the school, perhaps an implication that these were way below the expected standard and very few learners qualified to enroll at university level. Therefore, the study concludes that the new curriculum was not implemented correctly as the methods used by the teachers were ineffective.

6.3.4 What challenges are encountered in implementing the new Geography curriculum? (see 1.4.1)

According to the fourth objective, the study sought to evaluate the challenges faced by teachers in implementing the new curriculum. The answer to this question was organised according to themes and discussed with reference to the findings of the research from the preceding chapter. Findings of this study discovered that challenges faced by teachers and learners in implementing the new curriculum included inadequate resources that would have enabled effective imparting of knowledge to the learners. It emerged from the findings of this study that there was a shortage of resources that limited the practice of learner-centered methods of teaching. Most resources were unavailable in the sampled schools while a few were inadequately available.

All the schools that participated did not have physical resources such as a Geography room and a weather station. Geography is taught in a normal classroom where the seating arrangement was not suitable to practice learner-centered teaching activities. The results also revealed that there was a shortage of instructional media such as maps, Globes, charts, graph papers, atlases, globes and posters which are necessary for teaching Geography. Nevertheless, printed materials such as learners' text books, reference books, newspapers and teachers' guides were available and frequently used in teaching Geography in the schools. Interviewed Geography teachers stated that inadequacy of material resources was the most serious challenge in implementing the curriculum. Therefore, the study can conclude that shortage of resources resulted to poor academic performance of learners and had contributed to the failure of teachers to implement the curriculum properly.

Intriguingly, Geography is considered an elective subject in the secondary school curriculum in many schools in Eswatini. As a result, it emerged from the findings that the subject was allocated less teaching time on the timetable compared other subjects. Yet, as a practical subject, Geography requires a lot of time to enable teachers and learners to explore different teaching and learning activities. The participants explained that due to fear of not finishing the syllabus in time as it is too long and the fear of poor results and

the associated guilt, they tend to focus on traditional methods of teaching because they are fast which compromises the use of new effective instructional practices.

Regarding professional development of teachers in readiness for the implementation of the new EGCSE curriculum, this study revealed that there was inadequate teacher professional development. The results indicated that teachers did not receive adequate orientation on the teaching of the new curriculum. The interviewed Geography teachers voiced out that lack of appropriate professional development was a frustrating factor in the implementation of the Geography curriculum. Even though there were workshops that were held in the regions in preparation for the new curriculum, the findings from the study indicated that not all the teachers got the opportunity to be trained but only a selected few. The researcher can conclude that, this could pose a negative attitude towards the teaching of Geography in secondary schools in Eswatini. The reason is that if teachers are not competent in a subject, they lack confidence hence have a negative attitude.

6.3.5 Is there a difference in performance of students in the different Geography curricula? (see 1.4.1)

With reference to the fifth objective, the study intended to find out if there was a difference in terms of performance of learners between the old GCE and the new EGCSE curricula. The results of the study revealed a very serious concern when it comes to learners' achievements in examinations. According to the ECESWA (Examination Council of Eswatini) results, learners' performance had not been satisfactory since the introduction of the new curriculum. Learners were performing poorly in the new curriculum. Majority of the learners had challenges with the items on skills acquisition thus contributing to the low credit pass rate of Geography as a subject. Learners performed better in items that required recall of knowledge yet poorly on items that required application of skills. It can be said that this was the result of the traditional methods of teaching applied by teachers in the classroom.

Therefore, the study concludes that with reference to the research question on whether there is a difference in performance of students in the different curricular, there is a

significant difference in performance as the results show a major decline since the introduction of the new curriculum.

6.3.6 Main research conclusion

The main research question of this study concerned investigating curriculum changes in Geography as it was taught in Eswatini and how Geography teachers had adapted to the changes and its implementation. This section provides an answer to the main research question based on the answers of the sub research questions presented in the preceding section as the main research conclusion for the study.

The major findings of the study revealed that there had been significant changes from the GCE to EGCSE curriculum, in terms of the aims, assessment objectives, teaching approaches as well a learning outcomes. By its nature, Geography is a practical subject and the design of the new EGCSE curriculum policy encourages teachers to use constructivist methods of teaching which are learner-centred in approach. These new rules had more changes on how teachers had to do their teaching and how learners ought to have learnt. Teachers are also expected to understand the syllabus very well in order to adhere to the teaching approaches recommended.

However, the findings indicated that, contrary to the expectations of the design of the syllabus, classroom teachers carried out instructions using teacher-centered methods of teaching and learners became passive listeners. It is assumed that this contributed to the high rates of failure in external examinations of Geography because external examinations are testing skill acquisition which teachers are failing to teach and assess in their teaching. Surprisingly, the results revealed that leaners were performing well in internal examinations which makes one to conclude that school based examinations were below standard.

The interviewed Geography teachers pointed out a number of challenges that are hampering the effective implementation of the curriculum. The findings revealed that these challenges were a result of external and internal factors, for instance, testing, lack of resource support, teaching approaches, professional development needs, teachers' beliefs and decision making, understanding and ownership of innovation as well as

participation and involvement in the innovation had the greatest influence. Consequently, the dominance of the teachers coupled with the passiveness of the learners could have led to latter's incompetence in National Examinations.

The results of the study concur with literature that was reviewed on external and internal factors affecting implementation of a curriculum. These factors acted as a guide to the investigation and formed the conceptual framework of the study (see Figure 3.1) of factors influencing implementation in the context of Eswatini which assisted in the design of the research instruments. Based on the conceptual framework of internal and external factors, in – service training, resources, testing, and textbooks were classified as external factors, and attitudes of teachers, understanding of the innovation, and ownership of innovation were put under internal factors. According to the results, these factors proved to be the major factors affecting Geography teachers' curriculum implementation activities in the classroom. The results confirmed that the curriculum reforms were beyond the teachers' capacity to yield the desired results, consequently they were not able to implement them properly. The results should inform policy makers to help support teachers in preparation for curriculum implementation as they are the key implementers of curriculum.

Therefore, the results of the study have revealed that teachers are experiencing some challenges in the implementation of the EGCSE curriculum. These results bridge the gap between the constructivist theory, and the actual classroom practices by the Geography teachers particularly because this is the first study to be carried out in the context of Eswatini. Due to the highlighted challenges, coupled with the examination results, I can conclude that the curriculum is not properly implemented in the classroom. Hence, the Ministry of Education should ensure that before implementation of any curriculum, there should be a situational analysis of the local context to make sure that the new curriculum suits the needs of teachers' and learners' local context for easy adaptation. The following section presents a discussion of the recommendations of the study.

6.4 RECOMMENDATIONS

The following recommendations were derived from the findings and conclusions of this study. The presentation and analysis of the findings of this study (see 5.1 and 5.6) have generated several recommendations. These recommendations will help improve the effective implementation of the EGCSE curriculum in secondary schools in Eswatini.

6.4.1 Governance level

1. The Ministry of Education and Training (MOET) through the schools' administrators should ensure that teachers are well equipped for the implementation of the new curriculum. As the conceptual framework proposed by the study suggested, they should be capacitated in terms of in-service training, resource support, participation and involvement in the development of the curriculum. This is to empower them to be conversant with the new approaches to teach the EGCSE curriculum and overcome the challenges related to its implementation in the classroom.
2. The study advocates for constructivist methods of teaching as per the dictates of the policy of the new EGCSE curriculum. Therefore, the Ministry of education should organise small cluster workshops through which the Geography teachers would equip themselves so that they become confident in using learner-centred methods of teaching instead of traditional methods.
3. For teachers to effectively practice learner-centered methods of teaching, adequate physical resources for Geography teaching and learning, such as a Geography room, a weather station as well as material resources are of paramount importance. Hence, the MOET of Eswatini, the Regional Education office (REO) and other stakeholders should make sure that schools are well provided with these for effective implementation of the curriculum.
4. The Ministry of Education and Training together with other relevant stakeholders, should ensure that whenever there is a new curriculum in place, there should be a follow-up to monitor if it is implemented correctly in the schools.

6.4.2 Institutional level

1. In order for teachers to practice the learner-centered methods of teaching effectively, schools should procure adequate resources such as globs, maps, atlas, meteorological instruments, drawing instruments and reference books etc.; which are very essential for Geography teaching.
2. The school administration and heads of departments should supervise and encourage teachers to use learner-centred methods of teaching and motivate learners to be actively involved in the teaching and learning process. This will ensure that the curriculum is implemented successfully.
3. As a practical subject, Geography requires enough teaching time in order for the teachers to finish the syllabus on time. The study therefore recommends that the subject be allocated enough teaching periods in the school timetable.
4. The researcher recommends that workshops aimed at imparting and/or upgrading knowledge on assessment should be organised where teachers would be taught about the acceptable standards of assessments in order for them to have the skills to use even in their own school based examinations. Teachers should use formative assessment to assess learners' daily activities using the acceptable standards to test learners' abilities in preparation for external examinations.

6.5 AVENUES FOR FURTHER RESEARCH

This research is the first empirical study to investigate curriculum changes and implementation in the context of Eswatini secondary schools. Therefore, it will serve as an underpinning for researchers who want to carry out further investigations on curriculum implementation of Geography in secondary schools in the context of Eswatini.

The study identified external and internal factors affecting curriculum implementation in the context of Eswatini secondary schools. Therefore, further studies on other potential problems affecting curriculum implementation can be investigated in order to identify these beforehand.

Considering the delimitation of the study, as the sample was drawn from Geography teachers from selected public secondary schools in the Manzini Region, therefore, it is not representative of the total number of Geography teachers in the country. Hence, the researcher suggests that further studies be carried out in other public schools in other regions.

Moreover, the study did not include learners regarding the implementation of the curriculum as the key stakeholders as they are the receivers of the curriculum. This means that future research should also focus on investigating learners' perceptions on curriculum innovations.

6.6 LIMITATIONS OF THE STUDY

It can be said without a doubt that the fact that the sample of this study was drawn only from Geography teachers that taught in three public secondary schools in the Manzini region was not representative of the total number of Geography teachers in the country.

Moreover, the study targeted only public schools in the Manzini region which means the results cannot be generalized. Studies for further research can also be carried out in private schools

This study did not include perceptions of learners yet they were equally important stakeholders who were directly involved in the implementation of the curriculum. Their perceptions on this subject could determine the extent to which the new curriculum was effectively implemented and sustained.

Regardless of the limitations of the study stated above, this study has attempted to answer all the research questions satisfactorily on investigating curriculum changes and implementation of Geography curriculum in Eswatini secondary schools.

6.7 SUMMARY

The main objective of this study was to analyse the possible changes in the curriculum of Geography that is offered currently in Eswatini, establish the nature of the changes, assess the relevance and implementation of the EGCSE Geography curriculum, and how geography teachers have adapted to the changes. Geography is a practical subject hence

constructivist methods are useful and their usage enable Geography learners to acquire skills for life-long learning. Qualitative methods were employed to collect data from three teachers from three schools through in-depth individual interviews, classroom observations and document analysis. Findings were categorised into themes, analysed and compared in order to determine if patterns emerged, and to triangulate the data.

The results of the study indicated that the subject matter, teaching objectives and approaches of the EGCSE geography curriculum had been changed. However, problems were identified concerning the acquisition of the stipulated learner outcomes and this indicated that the learners had not mastered the skills and were thus unable to use and apply them. Scores of learners were affected negatively as it resulted into them achieving poorer results in examinations. Factors found to limit implementation of the curriculum were a lack of ownership and understanding of the curriculum by teachers, their attitudes, some threats of change, lack of appropriate resources to some schools, teacher training, misconceptions about the curriculum and little time to adopt. Although the majority of schools had adequate material resources such as textbooks, globes and maps, pressure to perform in tests and examinations affected the focus of teaching concentrating more on passing examinations rather than the process of mastering the skills. The study recommends the need for teacher training especially in practical aspects of Geography and provision of adequate resources especially to rural schools.

KEY TERMS:
Curriculum, curriculum change, curriculum implementation, Pedagogy, Geography, Teaching, Secondary schools, Education, Constructivism, internal and external examinations, internal and external factors and Eswatini.

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APPENDIX A: PERMISSION LETTER TO THE DIRECTOR OF EDUCATION

P.O.BOX C621
HUB-MANZINI
ESWATINI
M200

The DIRECTOR
The Ministry of Education and Training
P.O.Box 39
MBABANE
ESWATINI
M200

Dear Sir/Madam

Re: Research Permission

I am pursuing a Doctoral Degree by research in Curriculum Studies at the University of South Africa (UNISA). My supervisor is Prof T I Mogashoa, who works in the Department of Curriculum and Instructional Studies at UNISA. The title of my study is **Curriculum implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.**

I would like to conduct interviews with Geography teachers teaching **Form 4 and 5** as well as observe classroom interaction during lessons, library facilities, and Geography room facilities and resources in their natural setting. To ensure safety of the participants and researcher from COVID-19, the researcher will follow the national regulations, guidelines and protocols in the collection of data during this current global pandemic. First of all, the researcher will observe COVID-19 guidelines like social distancing, wearing of face masks and sanitising hands. Exchange of papers with participants will be avoided by using electronic means to facilitate data collection. However, where the use of electronic means is impossible the researcher will use precautionary measures, for example, document analysis such as lesson plans. The researcher will ask for copies of these documents, put them in an A4 size envelope for a period of seven days before use to reduce the risk of contagion when collecting data in the circumstances, since coronavirus can stay on papers for two to three days.

Since the researcher will undertake research activities in close proximity to the participants, she will provide a COVID-19 research toolkit when interacting with participants. The toolkit will include, face masks, face shield for the teacher for the observation of facial expressions, a thermometer, an alcohol based sanitiser, A4 size

envelopes (to put documents for a minimum of 7days before use) and a box of tissues. Names of participants who will participate in interviews will not be disclosed. In addition to interviews participant observations and informal observations will be used. Throughout this exercise, the researcher will ensure safety of the participants and researcher from COVID-19 by observing social distancing at all times, proper use of masks and sanitising using the alcohol-based sanitiser. The study aims to investigate curriculum implementation in Eswatini and how geography teachers have adapted to the changes. It will also find out how these changes were implemented.
I will interview three geography teachers from three secondary schools from the Manzini region. These would be purposefully selected to partake in the study. The outcome of the study will help teachers in implementing the curriculum programmes effectively. The study will also assist educational authorities to be more aware of curriculum implementation and its importance in the planning of professional development programmes and in policy-making.

My supervisor's contacts are:
Professor TI Mogashoa
University of South Africa
Tel: 0763725084
Email: mogasti@unisa.ac.za

_____

Yours Faithfully
Monica Mantombi Nkwanyana-Sithole
Email:zikodzemonix@gmail.com
Cell: 00268-76139420

APPENDIX B: PERMISSION LETTER TO THE REGIONAL EDUCATION OFFICER

P.O.BOX C621
HUB-MANZINI
ESWATINI
M200

THE REGIONAL EDUCATION OFFICER
The Ministry of Education and Training
P.O.Box 190
MANZINI
ESWATINI
M200

Dear Sir/Madam

APPLICATION TO CONDUCT RESEARCH IN THE MANZINI REGION

Re: Research Permission

I am studying for a Doctoral Degree in Curriculum Studies by research at the University of South Africa (UNISA). My supervisor is Professor T I Mogashoa in the Department of Curriculum and Instructional Studies. The study's title is **Curriculum implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.**
I would like to conduct interviews with Geography teachers teaching **Form 4 and 5** as well as observe classroom interaction during lessons, library facilities, and Geography room facilities and resources in their natural setting. To ensure safety of the participants from COVID-19, the researcher will follow the national regulations, guidelines and protocols in the collection of data during this current global pandemic. First of all, the researcher and participants will observe COVID-19 guidelines by social distancing, wearing face masks and sanitising hands. Exchange of papers will be avoided by using electronic means to facilitate data collection. However, where the use of electronic means is impossible the researcher will use precautionary measures, for example, document analysis such as lesson plans. The researcher will ask for copies of these documents, and put them in an A4 size envelope for a period of seven days before use to reduce the risk of contagion when collecting data.

Since the researcher will undertake research activities in close proximity to the participants, she will provide a COVID-19 research toolkit when interacting with participants. The toolkit will include, face masks, face shield for the teacher for the observation of facial expressions, a thermometer, an alcohol based sanitiser, A4 size envelopes (to put documents for a minimum of 7 days before use) and a box of tissues. Names of participants will remain confidential and unanimous. Interviews, classroom observations, informal conversations with teachers are methods and techniques that will be used to collect data. The researcher will ensure safety of the participants and researcher from COVID-19 by observing social distancing at all times, proper use of masks and sanitising using the alcohol-based sanitiser. The study aims to investigate curriculum implementation in Eswatini and how geography teachers have adapted to the changes. It will also find out how these changes were implemented.

Interviews will be conducted with three geography teachers from three secondary schools from the Manzini region. These would be purposefully selected to partake in the study. The outcome of the study will help teachers in implementing the curriculum programmes effectively. The study will also assist educational authorities to be more aware of curriculum implementation and its importance in the planning of professional development programmes and in policy-making.

For further information, contact my supervisor:
Professor TI Mogashoa
University of South Africa
Tel: 0763725084
Email: mogasti@unisa.ac.za

_____

Yours Faithfully
Monica Mantombi Nkwanyana-Sithole
Email: zikodzemonix@gmail.com
Cell: 00268-76139420

APPENDIX C: PERMISSION LETTER TO THE PRINCIPAL

P.O.BOX.C621
HUB-MANZINI
ESWATINI
M200

Attention

Dear Sir/Madam

APPLICATION TO CARRY OUT RESEARCH IN YOUR SCHOOL

Re: Research permission

I am studying for my Doctoral Degree in Curriculum Studies by research at the University of South Africa. My supervisor is Professor T I Mogashoa in the Department of Curriculum and Instructional Studies. The study title is **Curriculum implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.**
I would like to conduct interviews with Geography teachers teaching **Form 4 and 5** as well as observe classroom interaction during lessons, library facilities, and Geography room facilities and resources in their natural setting. To ensure safety of the participants and researcher from COVID-19, the researcher will follow the national regulations, guidelines and protocols in the collection of data during this current global pandemic. COVID-19 guidelines will be observed by the researcher and participants through wearing face masks, social distancing and sanitising hands. The exchange of papers will be avoided by using electronic means to facilitate data collection. However, where the use of electronic means is impossible the researcher will use precautionary measures, for example, document analysis such as lesson plans. The researcher will ask for copies of these documents, and put them in an A4 size envelope for a period of seven days before use to reduce the risk of contagion when collecting data.

Since the researcher will undertake research activities in close proximity to the participants, she will provide a COVID-19 research toolkit when interacting with participants. The toolkit will include, face masks, face shield for the teacher for the

observation of facial expressions, a thermometer, an alcohol based sanitiser, A4 size envelopes (to put documents for a minimum of 7days before use) and a box of tissues.

Participants' names and names of schools will remain confidential and unanimous. In-depth formal interviews, classroom participant observations and informal teacher observations will be used as data collection methods and techniques. Throughout this exercise, the researcher will ensure safety of the participants and researcher from COVID-19 by observing social distancing at all times, proper use of masks and sanitising using the alcohol-based sanitiser. The study's aim is to investigate curriculum implementation in Eswatini and how geography teachers have adapted to the changes. It will also find out how these changes were implemented.

Interviews will be conducted with three geography teachers from three secondary schools from the Manzini region. These would be purposefully selected to partake in the study. The outcome of the study will help teachers in implementing the curriculum programmes effectively. The study will also assist educational authorities to be more aware of curriculum implementation and its importance in the planning of professional development programmes and in policy-making.

For further information, contact my supervisor:
Professor TI Mogashoa
University of South Africa
Tel: 0763725084
Email: mogasti@unisa.ac.za

_____

Yours Faithfully

Monica Mantombi Nkwanyana-Sithole
Email: zikodzemonix@gmail.com
Cell: 00268-76139420

APPENDIX D: PARTICIPANT INFORMATION SHEET FOR A TEACHER

Date: _____

Title: **Curriculum implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.**

I am studying my Doctoral Degree in Curriculum Studies through research at the University of South Africa. My supervisor is Professor T I Mogashoa in the Department of Curriculum and Instructional Studies. You are invited to participate in the study with the title: **Curriculum implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.** The study's purpose is to investigate curriculum implementation in Eswatini and how geography teachers have adapted to the changes. It will also find out how these changes were implemented. The study involves face-to-face interviews, which will be recorded with your consent. Interview sessions will each take 20 to 30 minutes. I would like to conduct interviews with Geography teachers teaching **Form 4 and 5** as well as observe classroom interaction during lessons, textbook distribution, and Geography room facilities and resources in their natural setting. In-depth formal interviews, classroom participant observations and informal discussions will be used as data collection methods and techniques

To ensure safety from COVID-19, the researcher will follow the national regulations, guidelines and protocols in the collection of data during this current global pandemic. COVID-19 guidelines like social distancing, wearing of face masks and sanitising hands will be followed. The exchange of papers between the researcher and participants will be avoided by using electronic means to facilitate data collection. However, where the use of electronic means is impossible the researcher will use precautionary measures, for example, document analysis such as lesson plans. The researcher will ask for copies of these documents and put them in an A4 size envelope for a period of seven days before use to reduce the risk of contagion when collecting data in the circumstances, since coronavirus can stay on paper for two to three days.

Since the researcher will undertake research activities in close proximity to the participants, she will provide a COVID-19 research toolkit when interacting with participants. The toolkit will include, face masks, face shield for the teacher for the observation of facial expressions, a thermometer, an alcohol based sanitiser, A4 size envelopes (to put documents for a minimum of 7days before use) and a box of tissues.

Participation in this is voluntary, and if you decide to participate you will sign the informed consent form. You are assured of complete confidentiality and anonymity of information that you give during the study. Participant identities and records will be kept confidential. Participants will remain anonymous; their names and addresses will be removed and the interview data will be coded. What I hear and see during the course of the study will not be discussed with anyone. Coding will be used during the gathering of data and the processing of interview notes and the transcripts.
The researcher will store hard copies of collected data in locked cabinets and soft copies of data will be stored in computers that could only be opened through passwords for five

years. After five years hard copies of data will be shredded and soft copies of data will be permanently deleted from computers.

The researcher has applied for written approval from the Research Ethics Review Committee of the University of South Africa to conduct this study. A copy of the written application letter may be obtained from the researcher.
If you have any concerns, you may contact my supervisor whose details are given below:

Professor TI Mogashoa
University of South Africa
Tel: 0763725084
Email: mogasti@unisa.ac.za

Thank you for reading this information and for participating in this study.

Yours faithfully
MM Nkwanyana-Sithole
Email: zikodzemonix@gmail.com
Cell: 00268-76139420

APPENDIX E: INFORMED CONSENT FORM FOR PARTICIPANTS

Contact No.: 00268 76139420
Email address: zikodzemonix@gmail.com

Date: _____

I, ---------- confirm that the researcher has informed me about the nature, procedures, benefits and any anticipated inconveniences for my participation. I have read and understood and the researcher has explained the study to me. I have also asked the researcher questions for clarity and I am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without being victimised. I am aware that my identity will be kept confidential, and that the results of this study will be compiled in a report, journal publication or conference proceedings.

I also understand that to ensure safety of the participants and researcher from COVID-19, the researcher will follow the national regulations, guidelines and protocols in the collection of data during this current global pandemic. Throughout the exercise, the researcher will be observing social distancing at all times, proper use of masks and sanitising using alcohol-based sanitiser.

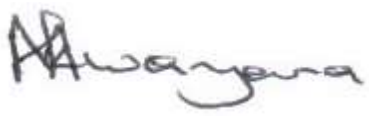
I agree to the audio recording of the interviews.

Participant's name and surname _____

_____

Signature Date

Researcher name and surname: MM Nkwanyana –Sithole



_____

Researcher's Signature

Date

APPENDIX F: OBSERVATION CHECKLIST OF MATERIAL RESOURCES FOR TEACHING GEOGRAPHY

Please tick [ ] the relevant box to show if each one of these resources are available in the schools and rank them as follows:

Adequate = A

Inadequate = I

Not at all = N

Under explanation, comment on the conditions of the resources.

	A	**I**	**N**	**Explanation**
1.Geography Room				
2. Chalkboard				
3. Storage space				
4.Globes				
5.Maps (e.g. physical and topographical maps)				
6. Meteorological instruments (e.g. rain gauge, Stevenson screen, hygrometer, wind vane, anemometer etc.)				
7.Computer-linked aids (e.g. internet)				
8.Overhead projector				
9.Charts				
10.Photographs				
11.Graphs &Transparences				
12.Atlas				
13.Textbooks				

APPENDIX G: OBSERVATION CHECK-LIST: DOCUMENT ANALYSIS

Observation checklist 2: Tools of evaluation used by Geography teachers to understand students' performance:

School in code_____ Teacher /code_____

Class_____ Subject_____

Date_____ Observer_____

5= most frequently, 4= frequently, 3= sometimes, 2= rarely, 1=not at all

Tools of evaluation	**5**	**4**	**3**	**2**	**1**
Class work					
Home work					
Project work/Assignment					
Tests					
Examination					
Participation					
Quiz					

APPENDIX H: OBSERVATION CHECKLIST: DOCUMENT ANALYSIS

Document Analysis checklist 3: Analysis of form 5 learners' Geography results

School in code _____

Class_____ Subject_____

Date_____ Analyzer_____

Form	Section	year	<50%	50-60%	61-70%	71-80%	81-90%	91-100%	Total
5									
Grand Total									

APPENDIX I: OBSERVATION CHECKLIST FOR CLASSROOM INTERACTION DURING LESSONS

Observation checklist: Methods of teaching implemented by Geography teachers:

School in code_____ Teacher's (code) _____
Class_____ Subject_____
Date_____ Observer_____
Lesson (1st, 2nd, 3rd, 4th, and 5th) _____ Topic_____
Content_____ Time_____

Methods in Geography teaching:	**Lesson1**	**Lesson2**	**Lesson3**
Lecture method			
Discussion method			
Inquiry method			
Role-play method			
Questioning method			
Simulation method			
Fieldwork method			
Map work method			
Activity-based method			
Project method			
Others			

APPENDIX J: INTERVIEWS FOR GEOGRAPHY TEACHERS

Interview questions for Geography Teachers

Dear Participant,

The study's purpose is to investigate curriculum implementation in Eswatini and how geography teachers have adapted to the changes. It will also find out how these changes were implemented. The study involves face-to-face interviews that will be recorded with your consent. The interview sessions will each take 20 to 30 minutes? Classroom interaction during lessons, library facilities, and Geography room facilities and resources in their natural setting will also be observed. In-depth formal interviews will be the main data collection technique. Classroom observations, informal discussions will be used to supplement interviews.

Thank you for your cooperation.

Part 1: Participants' Biographical information

A1. Your gender Female [ ] Male [ ]
A2. What is your age? 21-29 [ ] 30-39 [ ] 40-49 [ ] 50—59 [ ]
A3. What is your educational qualification? B.A [ ] B.A + PGCE [ ]Master's Degree [ ] PhD[ ] Other qualifications [ ]
A4. What are your teaching subjects? [ ]
A4. How many years have you been teaching Geography?1-4 [ ] 5-9 [ ] 10-14 [ ] 15 – 19 [ ] over 20 [ ]

Part II: Questions

Semi-structured questions are listed below regarding to Geography syllabus, teaching methods, learning styles, assessment tools, instructional media and other resources.

1. What changes have been made to the syllabus for Geography teaching and learning?

   _____

   _____

2. How would you express the unique nature of Geography regarding teaching-learning strategies?

   _____

   _____

3. Was there in-service training for the implementation of the new curriculum?

   _____

   _____

4. Were you involved in the planning for the implementation of the new curriculum?

   _____

   _____

5. What are the teaching strategies that are designed in the Geography syllabus?

   _____

   _____

6. State the teaching methods that you use in teaching Geography.

   _____

   _____

7. What is the value of learner-centred methods in the teaching of Geography?

   _____

   _____

8. What is your major role in the classroom and outside the classroom in the implementation of the Geography syllabus?

   _____

   _____

9. What challenges do you encounter in the implementation of the new syllabus?

_____

_____

APPENDIX K: RESEARCH ETHICS CLEARANCE

UNISA university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2021/08/11

Ref: **2021/08/11/67137326/36/AM**
Name: Mrs MM NKWANYANA-SITHOLE
Student No.: 67137326

Dear Mrs MM NKWANYANA-SITHOLE

Decision: Ethics Approval from 2021/08/11 to 2026/08/11

Researcher(s): Name: Mrs MM NKWANYANA-SITHOLE
E-mail address: 67137326@mylife.unisa.ac.za
Telephone: 00268 7613942

Supervisor(s): Name: PROF T I MOGASHOA
E-mail address: mogasti@unisa.ac.za
Telephone: 0763725084

Title of research:

Curriculum implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.

Qualification: PhD CURRICULUM STUDIES

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2021/08/11 to 2026/08/11.

*The **medium risk** application was reviewed by the Ethics Review Committee on 2021/08/11 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
8. No field work activities may continue after the expiry date **2026/08/11**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2021/08/11/67137326/36/AM** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Kind regards,

Prof AT Motlhabane
CHAIRPERSON: CEDU RERC
motlhat@unisa.ac.za

Prof PM Sebate
EXECUTIVE DEAN
Sebatpm@unisa.ac.za

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APPENDIX L: LANGUAGE EDITING CERTIFICATE

STMbondvo editing services (Pty) Ltd
148 Aramburg (Mpumalanga) Cell: 060 346 7091 email:mhlekazist@gmail.com

Proof of editing

STMbondvo editing services
148 Aramburg
Mpumalanga
South Africa
Cell.: 0603467091

Date: 22 December 2022

This is to certify that I have edited the PhD thesis of the following candidate:

Names and Surname: Monica Mantombi Nkwanyana-Sithole

Student number: 67137326

Title: Curriculum changes and implementation in Eswatini: the pedagogy of Geography teaching in secondary schools.

Maseko

Dr ST Maseko
Director
STMbondvo editing services

Confidentiality: *In editing academic documents, I understand that I have access to confidential data, that information contained in documents is confidential and for that, I agree not to divulge, publish, make known to unauthorized persons or to the public the data in documents.*

APPENDIX M: Turnitin Certificate

67137326- complete thesis 1st draft

ORIGINALITY REPORT

23%	21%	3%	9%
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