EFFECTS OF CURRICULUM CHANGE ON TEACHING AND LEARNING OF GEOGRAPHY IN GRADE 12

BY

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DECLARATION

I, Philip Ahiaku declare that the entire thesis and whatever contained in it is entirely my own creation and that I am the sole author. This work has not been presented to any university as whole or partially for any qualification.

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ABSTRACT

The deteriorating of educational level in the country has resulted in the need to look at the implementation of educational curricula especially newly introduced ones. The aim of this study was to investigate the effect of curriculum change on classroom practices. This was achieved by organising 129 Geography educators in King Cetshwayo District in KwaZulu-Natal Province to answer questionnaires and 5 were interviewed using semi-structure interview schedule. The Results show that the curriculum was changed to correct not only political and social injustices of the past but also to promote teaching and learning among the marginalised majority African. The approach to the formation of the new curriculum was described as a typical top-down and did not include the views of the majority. Educators expressed their dissatisfaction about their exclusion from the formulation process. Evidence suggests that educators were adequately prepared to implement the new curriculum. However, the practices in the classroom and the prescriptions of the new curriculum were not aligned. Most educators failed to uphold the learner-centred teaching approach philosophy and seemed to have limited knowledge about appropriate teaching methods towards achieving it. Much could have been achieved in the classrooms had the appropriate infrastructure and resources been provided. The study therefore recommended intensive in-service training for educators according to their needs especially in teaching strategies. Appropriate infrastructure and resources must as matter of fact be provided to especially the previous disadvantaged schools.

Keywords: curriculum change, learner-centred approach, inquiry learning, curriculum implementation, geography education, effect of curriculum change

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

B. Ed	Bachelor of Education
BA. Ed	Bachelor of Arts with Education
BSc. Ed	Bachelor of Science with Education
CAPS	Curriculum Assessment Policy Statements
CTPD	Continuous teacher professional development
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DoE	Department of education
ESD	Education for Sustainable Development
FET	Further Education and Training
GCE	General Certificate of Education
GET	General Education and Training
GIS	Geographic Information System
IBL	Inquiry Based Learning
ICT	Information communication Technology
IET	Initial Educator Training institutions
IGU	International Geographical Union
ISPFTED	Integrated Strategic Planning Framework for Teacher Education and Development in South Africa

MDG	Millennium Development Goals
MTDP	Master Teacher Development Plan
NCS	National Curriculum Statements
NEIMS	National Educational Infrastructure Management System
OBE	Outcomes Based Education
PCK	Pedagogical Content Knowledge
PGCE	Post Graduate Certificate in Education
PISA	Programme for International Students Assessment
RNCS	Revised National Curriculum Statements
SBA	School-Based Assessment
STD	Secondary Teacher Education
UK	United Kingdom
USA	United States of America

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Chapter One introduces the entire research process. The background to the study is discussed leading to the problem statement, the rational and motivation behind this study. The chapter continues by outlining the main objectives, research questions and the blue print that serves to guide the collection of data, processing and analysis. Finally, the organisation of the research chapters preceded the definition of concepts as they are utilised in the entire thesis.

1.2 BACKGROUND TO THE STUDY

In South Africa, the national curriculum serves as framework for subject curricula. It determines the common structure and basic guidelines which are to be applied by teachers. The curriculum document defines the mission, values, conceptions of learning and school culture as well as the working methods to be adopted in teaching school subjects in fulfilment of the national aspirations (Department of Education [DoE], 2003; Tani, 2015). Since the dawn of democracy in South Africa, several educational reforms have taken place involving implementation of curricula such as Outcomes Based Education (OBE), National Curriculum Statements (NCS), Revised National Curriculum Statements (RNCS) and the Curriculum and Assessment Policy Statements (CAPS).

The curriculum changes were imperative to address the educational imbalance in the country created by the previous apartheid regimes that failed to provide quality

education to the majority of the African population (Spaull, 2013). The educational imbalances had to be corrected because education has been identified as a vehicle to drive home the socio-economic growth and national development in the country (DoE, 2003). Education, therefore, is needed to provide the knowledge and skills that will increase people's competitive advantage and produce globalised and technological advancement (Pauw, 2010).

Two decades into the educational reform with the associated changes in policies and programs, the story of educational success has not been satisfactory. The national performance as compared to international and other regional performance is very low (Howie, 2004; Taylor 2012; Spaull, 2013). Performance of learners, particularly, in Geography as a subject within the school curriculum, has not been convincing (Wilmot & Dube, 2016). Past and current geographical researches (Van Harmelen, 1999; Beets & Grange, 2005; Grange & Beets, 2008; Wilmot, (2016) have contributed immensely to teacher education, especially, those directed towards understanding and improving practices in the classroom, yet, not much has been directed at providing valuable insights into what goes on in the Geography classroom. Literature reviewed was silent on the effect of Geography curriculum changes on the teaching of Geography in Grade 12 within King Cetshwayo District of KwaZulu-Natal. The literature was also silent on how the teaching and learning of Geography throughout the country can be improved because of its unique contribution as a subject in national development.

1.3 CONTEXTUAL FRAMEWORK

This study is situated in the context of geographical education research in South Africa and within curriculum implementation research in general.

1.3.1. Changes in South African curriculum

The South African Geography curriculum, both at the General and Further Education and Training (GET and FET) phases have undergone changes to cater for the political transformation in the country because the apartheid curriculum had only catered for the white minority interest at the expense of the black majority (Nel & Binns, 1999; Le Grange, 2001; Beets, 2005). The introduction of Curriculum 2005, therefore, was identified as both social and political transformation of the South African state.

Van der Merwe (1996), however, disagrees with the notion that the curriculum is only political and social transformation. To Van der Merwe (1996) curriculum 2005 came as a huge paradigm shift in teaching and learning of the curriculum, such as in subjects like, Geography in South Africa. The shift from the traditional textbook teaching to the constructivist approach and acquisition of geographical skills are result-oriented. Ballantyne (1999) also comments on the curriculum changes, calling the Outcomes Based Education (OBE) methods foreign to educators. What was worrisome to Beets (2005) also, was the teaching approach adopted at the GET phase curriculum. The split of the subject into environmental and human sciences (Department of Education [DoE], 2003) was identified as hampering performance at the FET phase. According to Beets (2005) the learners failed to grasp most important concepts and skills before reaching FET phase. Some studies (Ballantyne, 1999; Binns, 1999; Berry & Smith, 2009) agree that the teaching approach adopted gives advantage to one subject over the other since the subject teachers may not be competent in all subjects, therefore, may be biased toward one. This statement was confirmed by Berry and Smith (2009) who contend that the merger of Geography into the social sciences as dictated by the new curriculum, compromised its teaching.

The overemphasis on content to the detriment of methodology and assessment that characterised the National Curriculum Statement (NCS) has been addressed by the Curriculum and Assessment Policy Statement (CAPS) (Maluleke, 2011; Department of

Basic Education [DBE], 2012). According to Maluleke (2011) and Wilmot and Dube (2016), CAPS was introduced to strengthen the quality of teaching and learning and has been described as a simplified form of NCS (DBE, 2011). As the name implies, CAPS places more emphases on teaching methodology and assessment, dwelling very little on contents and skills (DBE, 2011).

1.3.2. Curriculum change and Geography contents

Any changes to the framework of the Geography curriculum should be formulated without losing sight of the main themes of Geography as a subject. The two most important geographical themes are human-environment relationship and spatial synthesis while the theme, Geographic Skills and Application, rather integrated Geography with all other learning areas. The South African new Geography curriculum is very clear about what must be taught in all grades, especially, Grade 12. Geography curriculum in both NCS and CAPS has laid emphasis on geographical skills, concepts, values and attitudes' dimensions. The national curriculum went further to suggest means by which themes can be acquired. These arrangements include the introduction of constructivist approach such as learner-centred (Van der Nest, 2012).

Curriculum is a means rather than an end to learners' performance. According to Magano (2006), curriculum changes in South Africa are to enhance teaching and learning in the classroom. This was supported by Van der Nest (2012) who added that curriculum-intended consequences in the classroom are for educators to change teaching strategies. The techniques and skills to teach in a particular subject, reside in the educator who is a curriculum implementer and maker (Lambert, 2013). Educators are to interpret and influence curriculum change through their epistemological orientations (Beets & Le Grange, 2008; Blignaut, 2008; Alexandre, 2009). These epistemological orientations are based on the assumptions that educators should be

well equipped with content and pedagogical knowledge to produce quality result among learners (Blignaut, 2008).

Geography educators have been found to be lacking in this regard especially with content knowledge (Shulman, 1986; Reitano & Harte, 2016). According to Reitano and Harte (2016) an educator's pedagogical content knowledge makes the learning of particular topics either easy or difficult for learners. Reinfried (2004) reiterates that most educators dedicate all their teaching time on topics they are conversant with, ignoring others that have been prescribed by the curriculum. Analysing the experiences and understanding of content knowledge of trainee Geography educators in Switzerland, Reinfried (2004) found that the majority have spent about 45% of their teaching time on Physical Geography contrary to the national curriculum prescription. In this case, the educators' interests override the curriculum and sometimes the interest of the learners as well. According to Hemmer and Hemmer (in Reinfried, 2004) when educators' interest in a particular topic overrides the interest of learners, no learning will take place and could result in poor learner performance during assessment.

1.3.3 Curriculum innovation and implementation model

Curriculum studies in Africa and the rest of the world have been based on models. The first transformation was to replace content-driven curricular by objective-driven curricula. In South Africa the outcome-based curricula replaced the previous apartheid curriculum. The previous curriculum was criticised as being content-based and making learners just to reproduce content learnt. The change brought a paradigm shift to create knowledge that could be applied, rather than just reproduced. These new curricula stressed the teaching of not just knowledge but also skills and attitudes which learners must apply within the new democratic dispensation. This new emerging curriculum was

interdisciplinary in approach, similar to changes in China where the highlights of the curricula change were the integration of subject knowledge (Zhu, 2010).

Pridmore (2007) is of the view that curriculum change should also address issues, such as multi-grade classrooms in developing countries, rather than socio political needs. He argues that the disadvantaged and remote rural areas should be considered in curricula designing and implementations. Vithanapathirana (2006) argues that sometimes, the motive of curriculum change is only to improve learning outcomes and not much emphasis is on the classroom processes. The best curriculum, however, the researcher believes, should consider a holistic approach by looking at both the impact on learners as well as the teaching and learning process.

Altinyelken (2010) expresses the role of educators in curriculum change. He argues that educators as implementers of the change are often left out of the design equation, therefore, educators' preferred strategies often do not match with the recommended ones. Educators often do not have the necessary understanding of the new curriculum and do not implement the curriculum to the letter (Altinyelken, 2010). Teaching and learning would be maximised when educators are given new teaching techniques based on the new curriculum before implementation.

Agyei and Voogt (2011) agree that from lack of support and understanding of the new curricula, educators resort to teaching using their traditional methods which, sometimes completely disregard curriculum directives. Pryor, Akyeampong, Westbrook and Lussier (2012), however, blame the failure of educators to follow new curriculum on the type of training received from training institutions. They contend that if a holistic training is received by educators, it would make them adjust to changes without any difficulty.

For curriculum change to impact positively on teaching and learning, depends largely on the extent to which educators are involved. Bregman, Verspoor and Klosowska (2008) argue that educators' involvement in curriculum planning would empower them and that the top-down approach in curriculum change leaves educators disempowered, hence, their failure to teach the realities in the classroom.

1.4 STATEMENT OF THE PROBLEM

The new South African Geography curriculum has been designed to be taught according to the subject contents and methodology. The new curriculum (CAPS) requires that learning Geography should not only be acquisition of knowledge and skills but also of certain attitude (DBE, 2012). The national curriculum, therefore, has introduced themes to prepare learners for the future. These changes form the basis for the Geography curriculum. The national curriculum also emphasises constructivism as the new approach, thus, the teacher-centred approach has been replaced by the learner-centred approach which will allow for autonomous learning (Van der Merwe, 1996; Reinfried, 2006). This approach requires active construction of knowledge where learners connect their past experiences to new ones. The new national curriculum did not only shift in paradigms of knowledge, but also paradigms of learning. There is an assertion that curriculum change comes with particular method of teaching to enhance learning and learner performance. Ironically, educators do not adhere to such practices and continue to teach with traditional method of teaching in their day-to-day classroom teaching, therefore, reducing learners' understanding of what is being taught (Alexandre, 2009; Molin & Grubbstrom, 2013). Five years after the implementation of new curriculum (Curriculum Assessment and Policy Statement [CAPS]) a falling trend in Geography national results has emerged. The first cohorts of 2014 recorded 81.3% pass rate, thereafter in 2015 the pass rate dropped to 77% and 76.5% in 2016. The question is whether the paradigmatic changes have been acknowledged by Geography educators and integrated into their teaching.

Considering this prevailing problem, the main research question is formulated as: How does curriculum change affect teaching and learning of Geography in Grade 12?

This question is broken down into the following sub-questions to provide a guide for data collection:

- What are the causes of changes in the Geography curriculum after the apartheid era in South Africa?
- How were Grade 12 Geography educators prepared for the implementation of the new curriculum?
- What effect does curriculum change have on Grade 12 Geography educators' teaching and current educator practice in translating the process into learners' achievement?
- What are the challenges experienced by Geography educators in implementing changes in Grade 12curriculum?

1.5 RESEARCH AIM

The aim of the study is to investigate the effects of the curriculum changes on teaching and learning of Geography in Grade 12. The Grade 12 curriculum serves as exit point after 12 years of study. It is the gateway to further education and to gain admission into the university or any higher educational institutions. Learners can enroll into higher institution provided they have excelled in their end-of-year Grade 12 examination. The teaching and learning throughout the years are directed at ensuring success for the learners through appropriate preparation. In this study I analysed educators' practice in the classroom, in relation to those outlined in the new curriculum at the FET phase of schools, in King Cetshwayo district of KwaZulu-Natal. The aim, thus, is to attempt to connect educators' development and implementation of the Geography curriculum to learners' performance at Grade 12.

1.5.1 Specific objectives

- To determine the basic causes for curriculum changes in South Africa during the post-apartheid era;
- To determine the level of information available to Geography educators before and after the implementation of the new curriculum.
- To explain the effects curriculum changes in Geography, have on the teaching Geography in Grade 12 and how this translate into learner performance, and
- To identify the challenges experienced by Geography educators in implementing curriculum change in Grade 12.

1.6. INTENDED CONTRIBUTION TO THE BODY OF KNOWLEDGE

This research will analyse the effect of Geography curriculum changes on the teaching of Geography in Grade 12 within King Cetshwayo District of KwaZulu-Natal. This study is essential to improve the teaching and learning of Geography throughout the country. Such a research is essential because of the unique contribution of Geography as a subject in national development. This study will also contribute on a larger international scale by sensitising educational pundits and specialists, on the implications of curriculum changes on policy development and implementation, in transitional societies. The study hopes to provide a tool to remedy possible flaws that may be identified in the implementation of educational policy, so as to bring about quality teaching and learning of Geography. This research will respond to the dearth of scholarly debates and literature on curriculum implementation in the classroom.

1.7. METHODOLOGY

Baily (1997:33) describes methodology as the philosophy of the research process. The methodology outlines the assumptions and values that serve as a rationale for the research, and the standards used for interpreting data and reaching conclusions. Research methodology explains the research design, data collection and data analysis (Baily, 1997); these are outlined below.

1.7.1. Research design

According to Durrheim (2006) a research design is a strategic framework that serves as a guide to research activity to enable the reaching of sound conclusions. Mouton and Marais (1990) explain the research design as aimed at maximising research validity which in turn lends credibility to the research findings. Durrheim (2006) opines that in planning a research, the following elements of research design must be followed: the purpose of the research must be known, the identification of theoretical paradigm underpinning the research, the research context and the data collection and analysis procedures.

A number of possible methodologies can be considered for conducting a research. Based on the objective of the study, the positivist approach was first considered since the type of data to be collected would provide an opportunity to test hypotheses however, the positivist approach is premised on the ontological assumption that social reality is external to individuals (Cohen, Manion & Morrison, 2007). This approach also requires the researcher to hold an epistemological position that there are identifiable causes for the recent performance of learners that must be objectively measured which will not vary but be constant in all contexts (Cohen et al., 2007).

The researcher therefore decided to operate within the interpretive paradigm. According to Cohen et al (2007) interpretive paradigm seeks to understand a phenomenon, in this study the effect of curriculum changes on performance of Geography learners. In order to explore the understanding of Geography educators' perception about curriculum change and effects on learners' performance, an interpretive methodology would provide a context that allows for examining their experiences (Cohen et al*.,* 2007). Interpretive research paradigm relies on naturalistic methods, such as interviewing, observation and analysis of existing texts. It also ensures an adequate dialogue between the researchers and those with whom they interact in order to collaboratively construct a meaningful reality (Creswell, 2009).

Additionally, the researcher used the mixed method research approach in data collection and analyses. The mixed method research approach draws on a scientific method but recognises that social constructs obtained during activities like observations, are subject to interpretation (Creswell, 2009). This approach combines both quantitative (positivist) and qualitative (interpretivist) paradigms (Creswell, 2009). Creswell and Plano Clark (2007) explain that a mixed method research links both quantitative and qualitative data in a way that provides a unified understanding of a research problem and ensures accuracy of data. The collection of the quantitative and qualitative data was done in a single study (Creswell & Tashakkori, 2007) using the sequential inquiry (Creswell, 2009). Collecting data in this way avoids errors likely to occur in each separate approach and serves to complement the strengths and weaknesses of each approach.

1.7.2. Sample and sampling techniques

The population is considered as the pool of cases from which a researcher draws a sample. Sampling is a process of systematically and carefully selecting respondents to be included in research (Creswell, 2014).The target population in this research

consisted of educators in public high schools in King Cetshwayo District. The public schools were chosen because they offer the National Senior Certificate (NSC) examination which is based on the curricula under investigation. Independent schools in the district run a different curriculum and examination system. The existence of heterogeneous settlements and school types in the district makes the District a suitable site for this research. The selection of the participants was done through purposive sampling procedure. Grade 12 educators (180) were sampled from all schools offering Geography in the public high schools in-depth discussion of this approach is presented in Chapter 4.

1.7.3. Instrumentation

Two principal data collection instruments were used in the study. These are structured questionnaire and semi-structured interview schedule. The questionnaire was the main instrument, designed by the researcher and was used to collect primary data eliciting personal information and the views of respondents on the teaching of Geography in their schools.

The questionnaire was categorised into two sections: Section A elicits, personal information, including the academic qualifications and teaching experience of the Geography educators; Section B elicits, information on the teaching and learning of Geography from teachers, which includes rational for curriculum change, educator preparedness for implementation of new curriculum, the actual teaching and learning of Geography in the classroom, the availability of teaching materials and challenges or difficulties associated with teaching Geography. The questionnaire consists of Likert scale for participants to indicate their agreements or disagreement of statements raised. In-depth discussion on this is presented in Chapter4.

Since the survey instruments were designed specifically for this research, a pilot test was conducted using participants' who were not included in the research. The purpose of the piloting was to ascertain the content validity of the questions of the instruments (Creswell, 2009). That went a long way in improving questions, format, and scales (Creswell, 2009). For a fair representation, ten (10) questionnaires were distributed to Geography educators in Zululand District of KwaZulu-Natal Province to respond to. The choice of Zululand district for piloting was to avoid influencing the actual research participants in King Cetshwayo district.

An interview schedule was used to elicit information from the Geography educators who would not participate in answering the questionnaires to add their specific language and voices to the topic (Creswell, 2009). The interviews were recorded both as print and audio. In-depth discussion is presented in Chapter 4.

1.7.4. Data collection and analysis

The quantitative data was analysed statistically, carried out by the Statistical Package for Social Sciences [SPSS] (21.0) program. Descriptive statistics such as means; percentages were used in order to analyse the data. Qualitative data generated from the field was analysed through themes (Braun & Clarke, 2006). Two main stages were followed in this analysis. The first stage involves coding and second stage the codes were categorised into major themes. The generated tables of codes, categorised themes were then compiled into excel spreadsheets. The recorded interviews were transcribed verbatim. The research findings were presented as main themes and sub themes which were illustrated with quotations of the views of the participants extracted from the interview transcript. The Braun &Clarke (2006) guidelines were used because they are clearer. The intensive literature review provided a sound background and conceptual framework to support the research findings. In-depth discussion is presented in Chapter 4.

1.8. DEFINITION OF OPERATIONAL TERMS

1.8.1. The curriculum

The curriculum in this study is the organization of studies to achieve historical, socio-economic and political needs of a society, therefore, it is a plan providing a system for a particular subject to be taught (Marsh & Willis, 2007). The Geography curriculum in this study is referring to the way information is organised and to be taught to learners. The word 'curriculum' is used interchangeably as 'Geography subject syllabus'.

1.8.2. Teaching

One of a curriculum's intended consequences in the classroom is for educators to change their method of teaching (Van der Nest, 2012). Teaching in this study is referring to different ways in which opportunities are created, not only in the classroom to help learners to acquire geographical knowledge (Du Plessis, Conley & Du Plessis, 2007). These opportunities are facilitated by the educator who is well informed about the curriculum.

1.8.3. Learning

Teaching is expected to result in a change in an individual and for knowledge creation (Du Plessis et al., 2007). This change affects the behaviour and perception while motivating the learner in creating ability to adapt politically, socially and economically in the society. In fact, learners must be able to do new things as an indication that learning has taken place.

1.8.4. Geography

The subject matter in Geography has been very difficult to define. The current definitions of Geography move away from basics of latitudes, longitude, meridian, equator and hemisphere, to viewing Geography in the context of people, history, culture, environment and nature associated with places as well as the interpretation of the past and application to the future. The Geography CAPS document recognizing the unifying nature of the subject, defines Geography as:

> "the study of human and physical environment. Geography is in integrated discipline that examines both physical and human processes over space and time. Geography helps us to understand our complex world. It offers us a bridge between the human and physical sciences. There are many branches of Geography. Physical Geography examines natural processes and features including the atmosphere, landforms, and the ecosystem. The Human Geography is concerned with the activities and impact of people on the earth. The concept that unifies Geography is space. All Geography phenomena have a spatial dimension. They also operate in a continuously changing environment" (DBE, 2011: 6)

1.9. CHAPTER OUTLINE OF THE THESIS

The thesis consists of six chapters, with a layout dealing with topics as arranged in order of conceptualisation, the literature review, methodology, data presentation, interpretation, discussion, and the conclusion. Chapters1 serves as an introduction and provide the scene, background, and conceptualisation of the study. Chapter 1 introduces the entire research specifying the problem statement of the study, rationale, the general aim and specific objectives of the study. The chapter 2 discusses the issues of development of Geography as a study of facts till it became a school subject. Arguments related to definition of Geography and its inclusion in South African Basic Education curriculum is detailed here.

The empirical evidence underpinning the research is covered in chapter three. The first part raises the theory underpinning the research and further introduces the linkage between curriculum change and teaching and learning of Geography. Chapter 4 discusses the methodological and philosophical bases of the research. This chapter provides a detailed blue print and describes the processes set out for the research.

Chapter 5 presents the analyses, interpretation and discussion of the effects of curriculum change on teaching and learning of Geography. Chapter 5 systematically presents data collected from respondents through questionnaire and the semi-structured interview with selected Grade 12 Geography educators. It further discusses and interprets the research result by providing an integrated view of evidence from chapter 3 on the various effects of curriculum change and teaching and learning of Geography in South Africa schools. The chapter also highlights the academic position of the researcher and the role of curriculum change in enhancing academic achievement of learners in their final matriculation examination. Chapter 6 gives the summary of findings and recommendations as the researcher's contribution to academic knowledge on the topic.

1.10. CHAPTER SUMMARY

The chapter briefly gives a historical background to the research, the rational and the aims informing the research. Geography is to provide learners with the ability to live and appreciate their environment and to form basis for their lifelong careers. Curriculum changes, however, address the issues of learners acquiring the knowledge, skills, attitude and values to propel their lifelong careers, therefore, problems faced by educators and learners are addressed for them to adjust into the educational system so as to achieve the articulated objectives and aims. The next chapter looks at the contextualisation of the research.

CHAPTER TWO

REVIEW ON DEVELOPMENT OF GEOGRAPHY AS A SUBJECT

2.1 INTRODUCTION

Geography as a science is viewed by many as an essential tool for modernisation, and economic development for bringing changes in the quality of people's lives, therefore, learners should be able to understand what is learnt at school and apply them to real life situations. Geography should also be enjoyed by learners who want to engage in further studies, for careers in Geography. In recent times, Geography has attracted the attention of researchers, particularly, because of the status it enjoys in the school curriculum of both developing and developed world (Lane, 2015). The importance of Geography literacy has been emphasised by a number of researchers who argue that Geography curriculum should provide learners with knowledge and understanding of the world they live in and to enable them become useful citizens who contribute and are beneficial to human and national development (Beets & Le Grange, 2008; Lambert, 2013). The knowledge of Geography, therefore, is essential, not only for career purposes, but of universal value to enable one to function as a responsible citizen.

This chapter explores the research work of others on development and evolution of Geography education to enable an understanding of the origin of the subject, Geography. The chapter is organised into five sections: section 2.2 deals with the importance of Geography to the learner; section 2.3 deliberates on conceptualisation of Geography as a subject in the national school curriculum; section 2.4 deals with evolution, scope and development of Geography curriculum, section 2.5 deals with the history of geographical education in South Africa, and the final section 2.6 deals with the place of Geography as a school subject within the curriculum.

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2.2. IMPORTANCE OF GEOGRAPHY IN THE 21ST CENTURY

Geography as a science is viewed by many as an essential tool for modernization and economic development for bringing changes in the quality of people's lives, therefore, learners should be able to understand what is learnt at school and apply them to real life situations (Lambert, 2013). Geography should also be enjoyed by learners who want to do further studies, for careers. In recent times Geography has attracted researchers' attention, particularly, because of the status the subject enjoys in the school curriculum of both developing and developed world. The importance of Geography literacy has been emphasised by a number of researchers who argue that Geography curriculum should provide learners with knowledge and understandings of the world they live in to enable them become useful citizens, who contribute and are beneficial to human and national development. The knowledge of Geography, therefore, is important not only for career purposes but of universal values to enable one to function as a responsible citizen. Geography teaches universal value such as humility, service, restraint and respect. Slater (2001) stipulates that a responsible citizen exhibits obedience to rules and regulations and respect for authority.

Geography education is seen in many countries as important element of schooling and is taught in early years of primary and secondary schools. The current Geography education, unlike the earlier one, is focused on living in a continuously-changing world (Van der Schee, 2012). The traditional topographical knowledge, of knowing places and their locations, countries and their capitals and where man-made and natural features occur, however, cannot be done away with. Traditionally, Geography is seen as a tool to equip learners to fully participate and live a successful life in the society. The studying of the subject allows for acquisition of knowledge and the developing of basic skills that build learners for the future development of their societies.

The 21st century and beyond is envisaged as being globalised and technologically complex with highly problematic and pressing issues (Pauw, 2015). It is imperative that the current geographical study of any nation is positioned to take up the current challenges the world faces. In response to the global complexity and challenges, the International Geographical Union (1994) proposed that geographical education must be directed towards solving the problem of population dynamics, food and hunger, urbanization, socio-economic disparities, illiteracy, poverty, unemployment, migration, gender inequalities, extinction of plants and animals, violation of human right, diseases, crime, deforestation, soil erosion, desertification, natural disasters, climate change, atmospheric pollution, water pollution, ozone depletion, limited resources, limits to growth, land use, ethnic conflicts, war, regionalism, nationalism and globalization (Haubrich, 1994).

These challenges are not only viewed from the global level but also at the national, local and the individual levels. Geography education, therefore, focuses on people and their environment at international, national and local levels. Simply put, the world cannot be a better place without Geography education. Numerous problems facing the world cannot be dealt with in a rational manner. On a personal level, studying Geography for many geographers enhances their enjoyment and appreciation of the natural world. Geography creates self-awareness of the universe, one's place of residence. As stated earlier, Geography education enables learners to engage in current public issues, as well as to make informed decisions. With a background in Geography, current political, economic and social issues, such as xenophobia, water supply and alternative medical treatments can better be dealt with. In addition, geographical skills can be meaningful in opening new worlds to explore and offering lifelong opportunities for enriching learners' lives. In a nutshell, learning Geography is important for everyone as it contributes to an individual's capability to understand and function effectively in the world (Lane, 2015). Any young person without Geography education, therefore, could be considered uneducated and ill-prepared to function in the global world. The more knowledge is

available in the hands of educated people capable of understanding the problems of the world, the greater the chances are of significantly reducing environmental damages and preventing future problems (Haubrich, 1994).It behoves Geography educators to present the new image of Geography teaching in a very clear, unambiguous and modern terms to learners, policymakers and politicians who think Geography is that simple subject that teaches about countries and their capitals (Van der Schee, 2012).

2.3. THE CONCEPTUALIZATION OF GEOGRAPHY

The definition and identification of the main themes to be studied in Geography has changed overtime (Mayhew, 2001). The difference in definition of Geography is primarily because the context of Geography was understood differently in different eras. The definition of Geography has gone through periods since the discovery of geographical texts of Ptolemy's Geography, through the discovery of the Americas until it became a formalised subject in schools and universities. In fact, the modern definition largely stems from the formation of Geography as a school subject and a discipline at the universities. Mayhew (2001) suggests that the difficulty of defining Geography is because of its dynamic and encompassing nature. Mathew and Herbert (2004) and Holt-Jensen (2009) agree that the difficulty of defining Geography arose from the fact that Geography is studied from different themes which are sometimes embedded in the natural sciences and social sciences disciplines, however, one thing is certain, the subject matter of Geography is the earth and its surface. This is because the themes of modern Geography are shared with subjects such as economics (economic Geography), transportation studies (transport Geography), tourism, politics, history, geology, climatology, hydrology and mathematics among others. The overlapping nature of Geography and other disciplines made it such a unique discipline. According to Reinfried and Hertig (2014), Geography is unique from other overlapping subjects in a sense that, the philosophy and methodology for studying Geography is different from other disciplines.

2.3.1 Early definitions of Geography

The early scientists and geographers attempted the definition of Geography considering it as the study of earth, its lands and people (Mayhew, 2001). These definitions were limited to distance, forms, direction and position as studied by geographers. The Greek scholar and geographer, Eratosthenes, defined Geography based on his work on calculating the circumference of the Earth. The works of another Greek astronomer, Strabo, as well as mathematician and geographer, Ptolemy explains the purpose of Geography as a view of the whole earth by mapping locations and places. Their definitions are therefore, limited to the field of mapping the land. According to Ptolemy (150 CE) “the purpose of Geography is to provide a view of the whole earth by mapping the location of places”. These definitions of Geography involving mapping were greatly influenced by the voyages and discoveries by sailors during the 150BC.

The attempt to introduce Geography as a formal school subject and university discipline in the seventeen century, gave Geography a new definition. A philosopher, Immanuel Kant (1780) attempted an explanation by differentiating between Geography and History, stating that the former is where certain conditions and features are located, adding that it is “synoptic discipline synthesising findings of other sciences through the concept of area and space”. These definitions were concerned about description of areas or regions and how they differ from one another. He considers Geography as descriptive rather than a science. Von Humboldt (1845) definition attempts to connect the study of map and regionalism. He defines Geography as a synthesising discipline to connect the general with spatial through measurement, mapping and regional emphasis. The definition offered by Humboldt favoured a method greater in scientific approach to studying physical and human phenomena in awareness of social responsibilities (Mayhew, 2001).

The 20th century definitions of Geography were sparked by the work of Halford Mackinder in 1887 who was trying to establish a relationship between man, society and environment. Ellen Semple promoting the man-environment relationship, states that man's behaviour, culture and history are controlled by the environment, a view many considered as controversial. Barrows' work in 1923 was seen as a correction or resolution of the earlier view of Semple. Barrow (1923) defined Geography as study of human ecology and the adjustment of man to natural surroundings.

The earlier idea of studying Geography as descriptive discipline was rejected in 1953. According to Schaefer (1953) Geography should be studied with a scientific approach, thus, he defines Geography as the science concerned with the formulation of the laws governing the spatial distribution of certain features on the surface of the earth. Hartshorne (1959) agreed that Geography should be studied to provide a systematic understanding about the earth. He defines Geography as accurate, orderly and rational description and interpretation of variable character of the earth surface. Holt-Jensen (1980) defines Geography as the study of variations in phenomena from place to place, as his definition was influenced by his desire for the study of settlement Geography, regional planning, as well as environmental sub-disciplines. Tuan (1991) defied Geography as the study of earth as the home of people. Tuan (1990) definition introduces Geography as study of space, place and time, hence, his work focused on how people think and feel about space and place, in a personal sense, from their home and neighbourhood, to their nation, and how that is affected by time.

2.3.2. Modern definition of Geography

The definitions of Geography above can be described as fragmented and not comprehensive. A comprehensive attempt to define Geography was provided by Pattison (1964) who categorises the previous definitions into themes and came up with

four themes referred to, as ‘traditions’. These four traditions are - spatial tradition, an area studies tradition, man-land tradition and earth science tradition. Robinson (1979) further summarises the four traditions and referred to them as ‘place, space, environment and earth’. Pattison (1964) explains that the definition of Geography would be incomplete without the inclusion of the four traditions as this would amount to alienation from the other professionals who had contributed to the discipline. Robison (1976), however, added that to help to complete the definition of Geography as a true representation of pluralistic discipline, it should include elements such as maps and time.

The earlier definitions sought to create various divisions of sub-discipline in Geography. Three main divisions can be derived from the definitions -cartography (that deals with drawing of maps), Physical Geography (which treats various factors relating to the environment) and Human Geography (dealing with human distribution and interaction with social and cultural activities on the earth surface). The current definitions attempt to unify the sub-divisions of the subject to avoid a fragmented view. The Royal Geographical Society (RGS) (2011) identifies the need to put the main sub-divisions of Geography together by defining Geography as:

> “….the study of the earth’s landscape, peoples, places, and environments. It is, quite simply, about the world in which we live. Geography is unique in bridging the social sciences (human Geography) with natural sciences (physical Geography)” (RGS, 2011: p,12*).*

The Geography CAPS document recognizing the unifying nature of the subject, defines Geography as:

> “the study of human and physical environment. Geography is integrated discipline that examines both physical and human processes over space and time. Geography helps us to understand our complex world. It offers us a bridge between the human and physical sciences. There are many branches of Geography. Physical Geography examines natural processes and features including the atmosphere, landforms, and the

> ecosystem. The Human Geography is concerned with the activities and impact of people on the earth. The concept that unifies Geography is space. All Geography phenomena have a spatial dimension. They also operate in a continuously changing environment"(DBE, 2011:p6).

The above definitions have placed more emphasis on the environment and its physical and social characteristics. This has made Geography more of a comprehensive study of human, environment and society. To achieve the integration and create that bridge between physical activities and human activities, techniques of teaching and learning of Geography was very important. Reinfried and Hertig (2011) advocate the use of a modern scientific approach as well as modern technologies to understand natural phenomena in the world. The use of the spatial and statistical techniques such as Geographical Information System, Global Positioning System and remote sensing give the study of Geography an integrative approach. These modern techniques are able to integrate the concepts of scale, human impact on the environment as well as changes over time and space (Reinfried & Hertig, 2011). Reinfried and Hertig (2011) define Geography as a science which seeks to explain the character of places, the distribution of people, features and events on the surface of the earth. According to the American Heritage Dictionary of the English, Geography is the study of the earth, its features and of distribution of life on the earth, including human life and the effects of human activity. It includes the physical characteristics especially the surface features of the area. It is very clear that the current definitions of Geography move away from the basics of latitudes, longitude, meridian, equator and hemisphere to viewing Geography in the context of people, history, culture, environment and nature associated with places, as well as the interpretation of the past and its application to the future. These definitions have also given us a categorisation of Geography and the way it must be taught and understood.

2.4. EVOLUTION, SCOPE AND DEVELOPMENT OF GEOGRAPHY CURRICULUM

The knowledge base in any discipline evolves overtime, creating space for growth and development. Geography as a discipline went through a similar paradigm shift over the centuries in terms of what is to be studied in schools and universities. The evolution has been necessary in order for the discipline to establish not only theoretical bases, beliefs, values and techniques that are shared by members of a given community, but also the scope to be included in curricula at any particular time (Kuhn, 1970). Haggett (1983) contests that the evolution paved way for introducing new models and procedure to be followed in studying Geography that represents the viewpoints of not a particular person, but the entire Geography community.

Academic Geography is organised and has moved from studying about regions to understanding the inter-relationship between humans and their changing environment; this reflects a paradigm shift in academic Geography (Agnew & Livingstone, 2011). The subject Geography has been streamlined along some philosophical assumptions, especially, in the 1960s. In response to these philosophical foundations of Geography, the following scope emerged: Regional Geography, Physical and Human Geography, Commercial Geography and the study involving relationship between physical and human phenomena (Naish, 2000).

Geography education witnessed an increased patronage in schools and universities at the beginning of the twentieth century to mid-twentieth century (Naish, 2000). The patronage accorded Geography the opportunity to expand its scope of study. During this period, Geography was studied as a regional study involving recognition of physical features and their characteristics, therefore, the emphasis has been on physical Geography with dominant components, such as geomorphology, meteorology, climate studies, biogeography and the ecosystem (Naish, 2000). The curriculum in schools and universities changed to make way for the new trends in Geography. The change that

started from the Americas in the 1950s and the 1960s, resulted in a move away from studying Geography as regions only. The Geography curricula of America and the United Kingdom saw the introduction of more specialised topics, including geomorphology, urban Geography, and agricultural Geography. The Geography syllabi were organised around concepts, such as spatial location, spatial distribution, spatial differentiation and spatial interaction and the regions.

The evolution of Geography was not only limited to the contents but also to the approaches of its teaching and learning as an academic subject. The American High School Project initiated in the 1960s influenced the way Geography should be studied (Graves, 1968). The Project emphasized active methods of teaching and learning with much focus on role plays, games and simulations. These approaches were embraced by geographers all over the world, including UK schools and universities. The syllabi of schools and universities were revised to accommodate the subject's new scientific approaches to teaching and learning. In the UK, the Ordinary and Advanced level General Certificate of Education courses were revised using the new model in Geography (Naish, 2000).

2.5. HISTORY OF GEOGRAPHICAL EDUCATION IN SOUTH AFRICA

Geographical education existed in South Africa in the 19th century but was different from one province to another. This section concentrates on the development of Geography as subject from the Cape Colony to early democracy in SA.

2.5.1. Geography education in the Cape Colony

Earlier Geography was introduced by the colonial masters (Britain) in the Cape to perpetuate colonialism (Wesso, 1994). According to Wesso (1994) the basic aim was to perpetuate the British rule and encourage the geographical knowledge of the British Empire. This was reflected in the curriculum which was tailored along the British curriculum. The general picture was that the Geography curriculum was designed as a school subject to perpetuate racial superiority of the colonial masters and subdue young people to colonisation. In the words of Wesso (1994: 317) “Geography, as a school subject, was seen to be an important medium through which imperial ideology could be inculcated in the minds of young people, and it was, therefore moulded to serve the needs of the colonial rulers”.

To confirm the colonisation and superiority of the whites, the curriculum was characterised by the concept of environmental determinism. According Ballantyne (1986) the teaching of Geography was just descriptive, showing the earth and its physical appearance on the globe and in the construction of maps and although attempts were made to introduce Geography throughout the colony, it was dominant in white schools only. The perception that the subject is an imperial ideology to subdue the other races in the country, created fears, resistance and a reluctance for its introduction in the Boer Republics - Transvaal and Orange Free States - nevertheless, the Natal Province embraced the subject in spite of the content (Clark, 1989).

In line with the policies of the Union Government (1910), Geography in South Africa spread throughout most primary and junior secondary schools with its identifiable “Cape and Bay” syllabus (Clark, 1989). South African and African Geography roots gradually set in from1945 and became a guiding principle (Van der Merwe, 1982). The strong

British and colonial contents and pedagogical approaches, gradually, became less (Ballantyne 1986).

2.5.2. Geography education during apartheid

The nature of education in South Africa was greatly affected after 1948 with the implementation of the apartheid policies of the government that took power (Ballantyne, 1986). Separate departments of education were created along racial lines and new Geography syllabuses were created as well. In line with the apartheid policy, the blacks and the whites are not to interact because they were believed to be of different natures. The apartheid government believed that different races have different needs and differ socio-culturally and must not sit and learn in the same classroom (Wesso, 1994). This act of segregation was backed by the enactment of the Bantu Educational Act of 1953 which gave a legal backing to the fragmented educational practices. During this period, the high school Geography curriculum did not change from the colonial curriculum.

Primary and junior Geography was studied in environmental and social studies. Physical Geography was studied under environmental studies while the human Geography and history were taught as social studies. In the high school, Geography was studied as an elective subject and its curriculum was simplified into teaching syllabi (Clark, 1989). Three syllabi were administered by the Department of Education, namely, for the lower, standard and high grades and, although, the contents of the three syllabi were the same, they were tailored to meet the different needs and capabilities of learners (Ballantyne, 1986).

The historical injustice was not only limited to the prohibition of black learners from white schools, but schools were resourced differently as well, with the black schools

being ill-resourced; African schools lacked infrastructure and human resources (Ballantyne, 1986; Innes, 2012). The shortage of teaching and learning resources, classrooms and teaching personnel hampered the teaching of Geography. The rolling effects of these phenomena led to production of poorly educated black Geography learners and teachers (Magi, 1981). The white schools were adequately resourced and had continuously been resourced better, with quality facilities (Ledger, 1980). The bad experiences of apartheid Geography by black learners gave rise to negative attitudes towards the subject. The subject therefore became unpopular among black learners with only few schools offering it (Magi, 1981). Surprisingly 25 years into democracy, the formerly-disadvantaged schools (black schools) are still ill-resourced as compared to the previously-advantaged schools (Ahiaku, 2016).

2.6. THE PLACE OF GEOGRAPHY AS SUBJECT WITHIN THE SCHOOL CURRICULUM

Initiatives to transform the socio-economic and political landscape gained momentum after the 1994 democratic election. The period saw a revision of apartheid legacies of social, economic and spatial inequalities. This provided an opportunity for geographers to transform and position the subject for development of new South Africa. Geography was seen as vehicle to drive the reconstruction and development of South Africa, for the new future (Mather, 2007).

The initial post-apartheid Geography curriculum was tailored along the international designs and was aligned, mainly, with the features, organisation and practices of Anglo-American curriculum. However, the focus was not lost on the physical and the human Geography contents (Nicolau & Davis, 2002). The focus of the new democratic curriculum was a departure from the descriptive approach that characterised the earlier colonial and apartheid Geography.

The earlier educational policies of apartheid did not give all races in the country equal opportunities as a result few learners were involved in studying Geography (Clark, 1989). An examination of the high school enrolment in the 1970s and 1990s saw fluctuations in the numbers. Ballantyne (1986) observes that between 1970 and 1980 the enrolment figures for learners in Geography was stable. These numbers were made up mainly of whites because other races, such as the Africans, Coloureds and Asians were not given the opportunities (Ballantyne, 1986). The new dispensation that gave equal educational opportunity to all races, however, brought a reversed position of Geography in the curriculum with more learners matriculating in Geography. The enrolment figures for 1990s was high making Geography one of the popular subjects in South African educational curriculum as envisaged earlier in the 1980s (Ballantyne, 1986; Clark, 1989).

The subject, however, suffered a drop in enrolment figures in the late 1990s as was envisaged, by researchers, when South Africans were advocating for more vocational-oriented curriculum (Ballantyne, 1986; Nel & Binns, 1999). According to Nel and Binns (1999) the introduction of tourism as subject into the curriculum, coupled with content overload and poor national senior certificate examination results made Geography unpopular among learners.

The history of Geography education and education in general was characterised by segregation and sexism, high dropout rates and poor examination results, among others (Jassen, 1999). These problems, unfortunately, were experienced by the disadvantaged population. The new era of democracy and government, therefore, brought about transformation in education to redress the apartheid legacy. The next section describes the educational reformation during the post-apartheid South Africa.

2.6.1. The post-apartheid curriculum

The new democratic era created an opportunity to redress the fragmented and segregated educational system of the apartheid regime. The new system aspired to create a unified national educational system full of equity and transparency, where all races and creed can participate in. As a result, a number of educational reforms were introduced in the form of curriculum change (Le Grange & Beets, 2005). Three phases of curriculum change have been implemented since the new dispensation. The initial phase was based on the principles of Outcomes-Based Education (OBE), christened 'curriculum 2005' (C2005), followed by the National Curriculum Statement (NCS) and the current Curriculum and Assessment Policy Statement (CAPS).

2.6.2. The position of Geography in the new curricula

The national curriculum statement (NCS) was the first policy statement released to guide teaching and learning in the further education and training band (FET) (Department of Education (2003a). The NCS was promulgated to advance the principles underpinning the 1996 republican constitution of South Africa. The preamble of the curriculum outlined clearly the principles as follows: democracy, human rights, social justice, equity, non-racism, non-sexism and Ubuntu (Department of Education, 2003: 1). These principles were broadening the Curriculum to bring about: social transformation, outcomes-based education, better knowledge and skills, integration and applied competence, progression, articulation and portability, human rights, inclusivity, environmental and social justice, valuing of indigenous knowledge systems, credibility, equality and efficiency (Department of Education (2004).

The national curriculum differentiated the schooling system as - general (GET) and further educational (FET) bands. The GET band consists of learners from Grades R to 9 while Grades 10 to 12 forms the FET band. The general educational band (GET) offered learners an opportunity to learn subjects in an integrated form where Geography as a subject is grouped with History as social sciences but each subject is a learning outcome. However, the FET offered learners opportunity to study specific subject of their choice (DoE, 2003). The interdisciplinary and integrated approach towards learning stipulated by the White Paper on Education and Training (South Africa, 1999) saw Geography split into two (Le Grange & Beets, 2005; Beets & Le Grange, 2008).

2.6.3. Geography at General Educational and Training

Geography at General Education and Training (GET) band was incorporated into two teaching and learning areas. The Physical Geography was integrated into the Natural Sciences Learning Area, whereas the Human Geography was put together with history and citizenship education into the Human and Social Sciences Learning Area; this indicated the position of Geography as precarious (Binns, 1999; Nel &Binns, 1999). This did not go down well with geographers and a number of concerns were raised over the splitting of Geography into two different learning areas and therefore diluting the strength of the subject as a tool for development (Innes, 2012). The idea of splitting Geography into two Learning Areas was adapted from the United States of America and Australia, but the framers did not consider the difficulties these countries are going through in trying to regain the position of the subject (Binns, 1999).

The call of the concerned geographers and stakeholders over the unrecognisable position of Geography was heeded to when the reviewed curriculum was formulated (Binns, 1999). The revised curriculum repositioned Geography and History into the new Social Sciences Learning Area, however, what the framers of the curriculum did not realize is that, Physical and Human Geography are not learned as separate entity, rather they are complementary. The main concern of researchers again was whether

educators were qualified to teach Geography adequately in the Social sciences. Le Grange and Beets (2005) and Beets and Le Grange (2008) vociferously argued that educators were not adequately trained to handle Geography in the two Learning Areas and expressed the bias of educators towards one subject over the other (Ballantyne, 1999). The concerns of these researchers have still not been addressed till today.

While most geographers were concerned about the position of the subject in the curriculum 2005 and vehemently protested, others supported the idea. Van Harmelen (1999) argues that providing general knowledge for South African learners from Grades R to 9 as stipulated in the curriculum is healthy, as long as the FET band provides opportunity for specialist knowledge for the learners. Van Harmelen (1999) explains that the general knowledge coupled with the constructivist approach is good for the country as it makes learners radical thinkers, as compared to the behaviourist approach which is considered to be textbook-based teaching that provides learners with little opportunity to reason beyond the textbook (Van Harmelen, 1999).

2.6.4. Geography at Further Education and Training Band

The general call by geographers and Geography educators and the consequent review of curriculum 2005 at the GET paved the way for a sound FET curriculum. The integrated subjects were disentangled to create 29 autonomous subjects, including Geography (Le Grange & Beets, 2005). Geography has been freed from the Social Sciences to be studied as elective subject from Grades 10-12. Unlike Geography in Social Sciences at the GET band, Geography at FET demonstrates competences among learners. There were three competences: geographical skills and techniques (which is demonstrated through practical activities), knowledge and understanding, and application (where the geographical skills and the knowledge are applied to day to day man-environmental issues and demonstrating an ability to resolve them) (DoE, 2003a).

These abilities, however, are not limited to solving local level challenges only but also on national and global scales.

One feature of the curriculum 2005 which was applauded by geographers and academics was progression across grades. According to Le Grange and Beets (2005), assessments standard in Grade10 is similar to Grades 11 and 12, however, the differences lie in the complexity of the questions which focused on global, continental and regional patterns of activities (Beets & Le Grange, 2008).

The Geography fraternity heralded the new position of Geography in the new curriculum but feared rivalry between the newly-introduced subjects such as tourism and business studies in the curriculum. This is because tourism is a splinter from Geography and a growing sector with very available employment. The researchers expressed fear that most learners would opt for tourism at the expense of Geography, resulting in less number of Geography high school learners. The second concern raised by geographers was the conspicuous absence of sustainable development, geographic information system and much knowledge of African continent from the Geography curriculum (Le Grange & Beets, 2005).

2.6.5. Curriculum Assessment Policy Statement

The Curriculum Assessment Policy Statement (CAPS) was introduced and implemented in the FET band in 2012, spanning over a three-year period. The implementation was in phases, starting from Grade 10, 11 and 12. CAPS was introduced because of numerous calls and reports from stakeholders and scholars, about the poor performance of the majority South African school children in the national senior school examinations and other international competitions under the NCS (Department of Basic Education, 2011).

The complaints about the total implementation of NCS, especially, how the curriculum attempts to reduce educators work load on clerical and paper work at the expense of teaching in the classroom, and different interpretation that were given to the curriculum requirements were among factors that gave birth to CAPS. CAPS, therefore, was seen more as a tool to augment the NCS rather than a new curriculum, intended to improve teaching and learning in schools in order to raise the performance of learners and ease the work of educators (Johnson, Dempster & Hugo, 2011). According to Wilmot (2017), the complexity of outcomes based education gave way to a knowledge-based education and provides educators with basic support as to what topic to be taught, how it should be taught, how long it should be taught and suggested for possible assessment methods.

The CAPS Geography document outlined themes and topics for each grade. The themes and topics were developed for educators to help their understanding of progression from Grades 10 to 12. Besides, the themes and the topics, the contents to be covered for each term and for how long had also been outlined. The teaching techniques were also well defined to provide guidance for the teaching. The Geography CAPS document favoured the enquiry pedagogical approach framed by geographical questions that guide teaching and learning (Wilmot & Dube, 2016). The document also identified teaching and learning resources to be used by educators in each lesson and how it would be organised. CAPS detailed how assessment should be conducted by educators. The over-simplification of the document took away the ingenuity of educators and rendered the most experienced educators, mere classroom spectators (Wilmot & Dube, 2016).

2.7. CHAPTER SUMMARY

This chapter outlined the development of Geography as a school subject in the context of the study. I have explained the importance of Geography as a school subject and its socio-economic benefits to learners. Attempts were made to describe the complex nature of studying Geography through the various definitions assigned to it over the years. The history and development of Geography as school subject featured largely in this chapter explaining the disagreements around the subject in South African schools which was largely a result of the political intolerance at the time. The two most recent national curricula were discussed in relation to the position of teaching and learning Geography in high schools.

The next chapter deals with the empirical evidence available in literature on the problem statement of the study. The chapter focused mainly on the reasons for curriculum change, preparations undertaken for the implementation of the change, how educators' practices translate into success, failure of the change and challenges expressed by educators during the implementation.

CHAPTER THREE

LITERATURE REVIEW

3.1. INTRODUCTION

This chapter explores the connection between the theoretical and empirical literature associated with curriculum change and teaching and learning. The chapter is divided into two broad parts. The first part (3.2) of this chapter is the theoretical framework which dwells much on the theory relating to the formulation and implementation of new curriculum. The second part deals with the empirical literature as relates to the four main objectives of the study. The second part is divided into various sections and subsections. The first section (3.3) advances the various reasons put forward by curriculum specialists and educationists for changes occurring in curriculum. The second section (3.4) deals with implementation of new curriculum. Implementation of new curriculum involves what takes place in the classrooms hence, it is imperative that the educator and the school environment play a critical role. The review, therefore, focuses on educators' teaching and learning experiences. The first section deals with the preparedness of educators for the change. This expands on the educators' initial training, during active service and before the introduction of the curriculum reform.

As Geography educators there is a need for them to acquire the requisite knowledge, skills and attitudes during their educational journey, in the field and other orientations to enable them teach. An educator should be able to have a command over the subject content knowledge, pedagogical content knowledge and teaching skills which are needed for the implementation of the new curriculum. Section 3.5 deals with the provision of facilities and resources to take care of the changes. These facilities include infrastructure, such as classrooms, laboratory, and toilets. The resources considered for discussion here include the textbooks, computers, maps and others as they relate to

teaching of Geography. This section is very relevant because the educator cannot work without resources no matter how qualified and experienced he or she may be.

3.2. THEORETICAL FRAMEWORK

This study is based on curriculum as a process model put forward by Sahlberg (2006). The model is built on the Positivist theorem especially the experimental behaviourist psychology that was used to determine a change in learning process in organisms (Pinar, Reynolds, Slattery & Taubman, 1995). In this theorem, curriculum change was directly linked to understanding human learning, described as "stimulus-response" function, where learning is explained through multiple linear stimuli - response sequences (Pinar et al., 1995). This model as illustrated in figure 3.1 explains the learning behaviour of learners where a stimulus was introduced to influence the organism and a response received as a reaction to the stimulus. The stimulus-response model was used to explain curriculum change process (Sahlberg, 2006). The stimulus in the model represents the factors that motivate the change of curriculum while the organism represents the existing curriculum that is to undertake the change and the response is the success of the change through a careful implementation which reflects in learner performance.

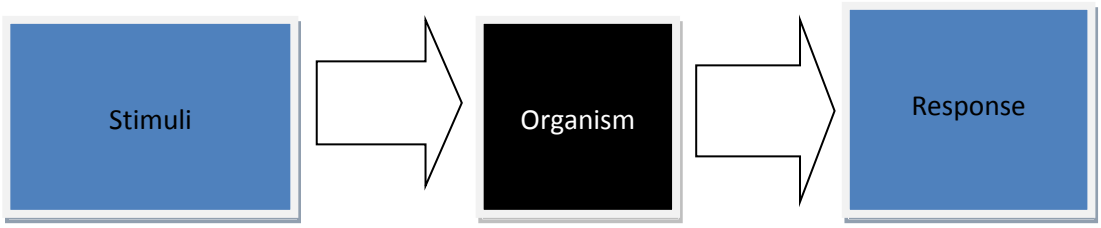

Figure3. 1: Linear model describing the behavioural learning of the learner. Sahlberg (2006)

However, Sahlberg (2006) considers educational changes as more complex than what the model has represented. According to Sahlberg (2006) curriculum change should simply not be limited to change in learners and educators but a change to entire school as an organization. To him teaching and learning materials and resources must form part of the change. Therefore, using same analogy as presented by the model to represent a curriculum change, the stimulus represents the efforts under taken to improve the understanding of the change, the school, as organisation replaces the organism while the results and changes from the classroom represents the response which is externally observed (figure 3.2).

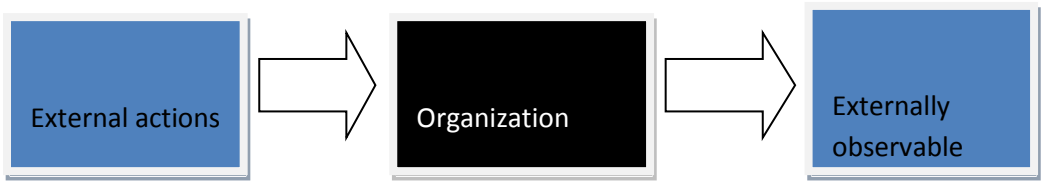

*Figure 3.2: linear model of curriculum change (*Sahlberg, 2006*).*

Sahlberg (2006) explains that curriculum change should be followed by the implementation policy. The gap between the intended and the implementation of policy can only be narrowed with a strong knowledge and understating of the change. According to Sahlberg (2006), the lack of knowledge and understanding of the change results in implementation failure. Therefore, curriculum change needs to be understood in order to implement the new curriculum to achieve positive change. In order for the curriculum change to be understood and implemented successfully, Sahlberg (2006) identifies four interacting factors that inform the implementing agents both at micro and macro levels: stakeholders such as educators and department of education must have knowledge about the reform; training educators to receive the change; approaches and strategies in teaching and provision of resources to capacitate the reform. To elaborate further on the factors, the stakeholders must make sense of why a new curriculum is necessary and must be able to link to the political and socio-economic dynamics of the state. This means that change should not be merely driven by parochial interests of educational specialists but the overall interests of the state. Secondly, implementation of

the change must be characterised by “information diffusion in order to raise the awareness of re-form, in-service training for educators to improve their knowledge and relevant skills and dissemination of support materials, such as teachers’ guides, educational pamphlets to parents, to back up the intended change” (Sahlberg, 2006: P1). This would involve interaction with the departmental officials and curriculum or subject advisors. The third factor explains the curriculum coverage in the classroom. The new curriculum should specify what to be taught and how it should be taught and what to be learnt and how it should be learnt by transforming classroom practices in schools (Sahlberg, 2006). This must change both the teaching and learning by educators exhibiting their professionalism in the classroom. Finally, the provision of infrastructure and resources aim at empowering the efforts of stake holders, especially educators is paramount.

The conceptual Model for curriculum change and effect on teaching and learning (figure 3.3) was bored from linear model and forms the basis for the development of literature review and arriving at conclusion of the study. In this research the external factors includes the reasons for a change in the curriculum, the organisation describes the structure and processes undertaken to implement the curriculum and the action and results from the implementation represents the external observables.

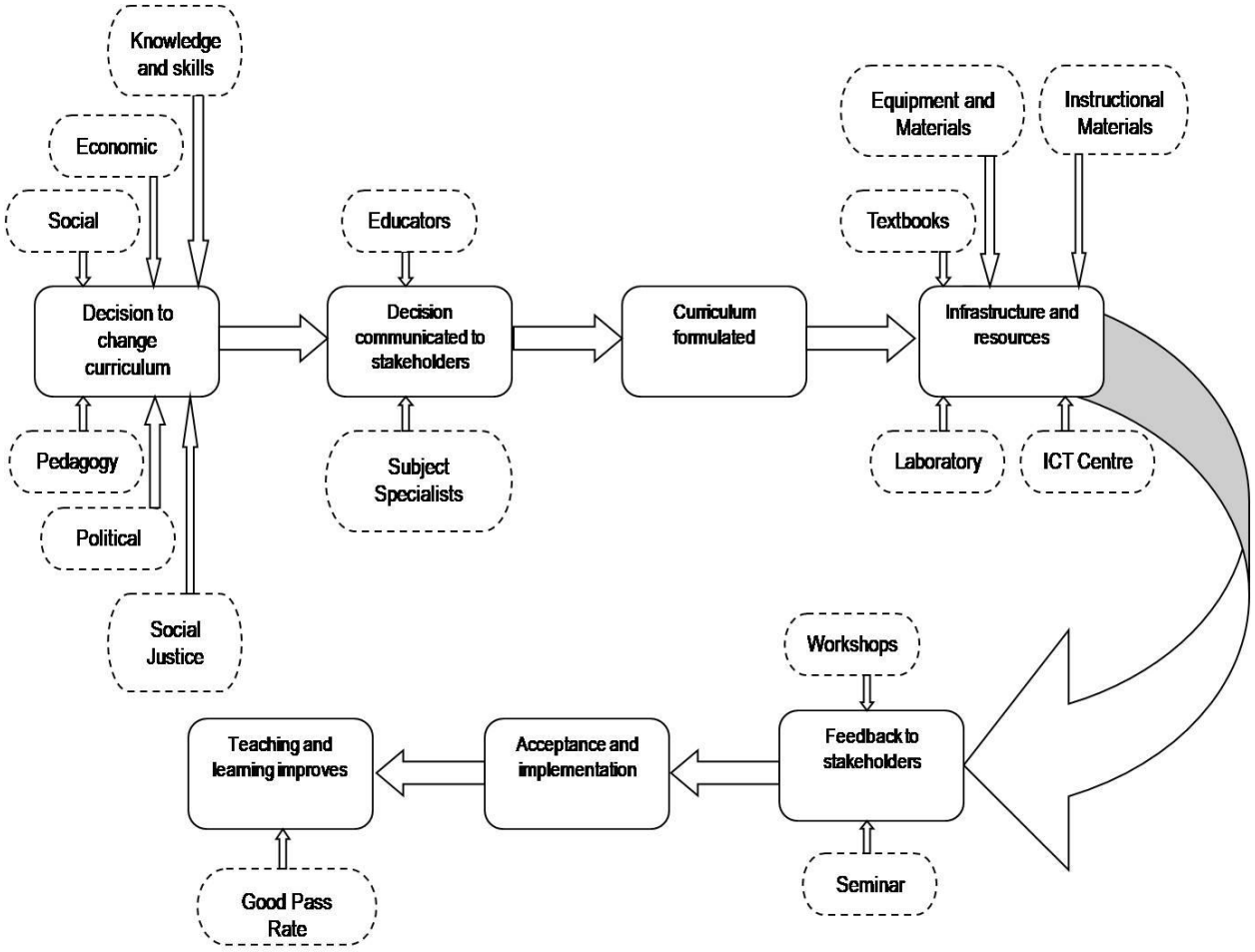

Figure 3.3: The Conceptual Model for curriculum change and effect on teaching and learning.

3.3. REASONS FOR CHANGE IN CURRICULUM

Curriculum change is healthy to maintain a balance for the development of any subject. The goals of national development play a significant role in determining what goes into school curriculum, since the curriculum is the driver of the developmental goals. In attempt to fulfil the national goals, sight should not be lost, however, of the philosophical principles of subjects which are the basic components of the national curriculum. In other words, the subject contents, educational and philosophical principles should not

be compromised for the socio-economic needs of the country but rather a balance of the two should be maintained (Marsden, 1997). South Africa has experienced dramatic changes in the national curriculum since the new dawn of democracy in 1994. The driving factors of these rather frequent changes in the national curriculum, is met with mixed feelings as to whether the political, social and economic factors have not over clouded the judgment of the framers of the curricula (Jassen, 1999).

The views expressed here are critical in understanding the rational for national curriculum change in general and Geography, in particular, within the national curriculum statement, curriculum assessment and policy statement documents. The international and continental views are expressed when unraveling the factors influencing the frequent change of the Geography curriculum in South Africa.

3.3.1. Responsiveness to learner knowledge

Curriculum change is necessary and operational in schools, when outmoded knowledge needs to change (Apple, 1982; Young, 2009). Tyler (1949) postulates that the main goals of curriculum development and change must be driven by the knowledge and skills to be acquired by learners in order to live in their society. Young (2009) agrees that the view of curriculum change must be dominated by development of learner knowledge and transmission. This knowledge must be socially constructed and must open new avenues for learners to understand their world (Young, 2009).

Knowledge-dominated curriculum has been identified in recent literature as what constitutes knowledge. Lambert, Solem and Tani (2015) contend that this knowledge described as “powerful knowledge” must propel learners to think and appreciate the social, economic and environmental future, of not only their local or national but

international places. Maude (2016) asserts that any powerful knowledge developed by learners must equip them to debate on the local, national and international stages. Tani, Cantell and Hilander (2018) argue that this knowledge must resonate with the 21st century lifelong skills as defined by OECD, thus, the knowledge must empower learners to function effectively, both at work and in leisure time. Some curricula are developed with the notion of educating learners to acceptable international standard in order to compete globally. There has been intense pressure bearing on countries to perform in international educational competitions, such as Programme for International Student Assessment (PISA) where individual countries are ranked (Tani et al., 2018).

3.3.2. Responding to outdated methodology

Curriculum experts believe that curriculum change brings about changes in the teaching culture, where emphases are placed on methodologies, learning styles, assessment and also the philosophical basis of the curriculum. The new curriculum should specify what is to be taught, how it should be taught, what is to be learnt and how it should be learnt. A curriculum that is not responding to right methodology or identification of problems from implementing of an existing curriculum and with systematic communication problems can be improved by change. These curriculum changes may aim at changing the curriculum from the domination of one methodology to another. The changes may also be more focused on improving the quality of education and to equip learners with solid knowledge, skills and attitudes to enable them to achieve academically.

Innovation may increase learner autonomy and control over their classroom situation where learners take a centre stage during the teaching and learning, where the roles of both educators and learners have to change with the educators being more of a facilitator than controller of learning and teaching (Fullan & Promfret, 1977). Some

studies (Ball & Cohen, 1999; Jassen, 1999) describe implementation of curriculum change involving outmoded practices as complex since educators are required to do new things they have no idea about. Carless (1997) suggests that such implementation must be gradual, and the approaches must be less ambitious.

In some countries, curriculum designers take into consideration both teaching approaches and assessment. An example is Israeli's curriculum changes in the 60s and 70s (Sanders, 1993). The curriculum was designed to allow assessment of all objectives taught, therefore, the examinations were set to ensure that all skills taught are examinable and examined (Sanders, 1993). The case in Africa was quite different where the curriculum change was only concerned about the goals and objectives but not assessment, nevertheless, in South Africa Curriculum 2005 was among other reasons to change direction of teaching and learning from the former apartheid curriculum (Lewin, 1995; Jassen, 1999). The new national curriculum, therefore, emphasises the constructivist approach to learning by creating autonomous teaching and learning through learner-centred approach, thereby, departing from the teacher-centred approach that dominated the previous apartheid curriculum (Jassen, 1999). The CAPS, on the other hand, emphasises reforms in assessment (DBE, 2012).

3.3.3. Economic responsiveness

Reasons advanced in literature in relation to curriculum change are multifaceted and interwoven. Generally, curriculum change agenda is driven by globalised economic situations and responding to these is to ensure that our schools respond specifically, to ensure that learners who pass through the system are globally competitive with marketable skills and are employable. Developing a connection between high school education and the economy has been the business of most developing countries; this

forces most of their national curricula to aim at producing learners who can meet their countries' resource needs and participate equally in the 21st century.

In Zambia, the curricula changes were in response to economic needs of the country (Carmody, 2004; Kelly, 2006). Responding to curriculum change in Zambia, Carmody (2004) states that the main motivation as the previous curriculum failed to provide learners with the requisite skills to respond to the economy; the new curriculum afforded learners the practical skills necessary to survive in the country and in a competitive global economy. In doing so, the 1996 curriculum introduced vocational skills to prepare learners for the world of employment (Kelly, 2006).

Economic-driven curriculum is not limited to developing or African countries only. In general, economic drivers are very prominent in driving most European countries' curricula. Yasar and Seremet (2009) state that the economies of Turkey and the European Union had far-reaching consequences on curriculum change in Turkey. According to the authors, curriculum 2005 was largely influenced by economic conditions in the country and the European Union (EU). The curriculum 2005 was formulated to replace the previous one to enable Turkey to comply with economic trends in the EU. The curriculum change wind that blew in the Asian States was also not without economic influence. Lee and Butt (2014) describe the South Korean 2009 curriculum as leaning on neoliberalism and market forces at the detriment of the subjects' content trends causing teachers and learners in Geography to struggle with curriculum implementation.

In reacting to United Kingdom's curriculum change in the direction of economic goals, Lambert, Solem and Tani (2015) state:

> "The neoliberal times offer an environment of constant innovation and change, rapid and bewildering, movement, and the twenty-four/seven, just-in-time, economic setting

> of globalised economics and school becoming competitive to turn learners with marketable and employable skills" (p16).

They were quick to warn, however, that turning high schools into economic-skills manufacturing centres, is gradually diminishing the goals of education, thus, critical knowledge of human potential may be lost. In criticism of South Africa's Curriculum 2005 and CAPS over-reliance on economic goals, Blignaut (2017) states:

> "Education institutions that see their role solely as imparting narrow skills and knowledge that prepare students only as part of work force in a market economy negate the other important functions of education as contributing to the functioning of the critical citizens in democratic society" (p5).

Psacharopaolos & Woodhall (as cited in Jassen (1999) contend that less empirical evidence exist, especially, in developing countries that curriculum changes in response to economic needs has any effect in the classroom. Jassen (1999), therefore, reiterates that making curriculum changes to reflect the economic needs in the high schools is very political and has no foundation in the classroom.

3.3.4. Social responsiveness

Issues of economic responsiveness are widely critiqued, hence, the literature suggests that the role of high school curriculum is much greater than the labour market. Instead of producing learners responding to market forces, curriculum must respond to societal goals of the state so as to produce committed citizens. Paechter (2000) argues that curriculum change should be directed at skills to empower social change. Firth (2016) postulates that schools are agents of social change and must, therefore, see preserving traditional intellect as their goals.

Lee and Butt (2014) describe earlier curriculum change in South Korea as being heavily influenced by historical and social changes immediately after the decline of Japanese dominance over Korea. They further explain that the over-influence of the social issues saw subjects, such Geography taught as social studies and social sciences to the extent that the Physical Geography was only taught through themes such as tourism, natural disasters and environmental problems. The social influence saw various curricula changes in South Korea with national aims such as producing “healthy, self-reliant, creative and morally-sound Koreans” for curriculum 1990; the aim was for “autonomous, creative Koreans” in 1997 and “global, creative citizens” was the reason for 2007 national curriculum (Lee & Butt, 2014: 18). The authors continue that social issues’ dominance over the curricula brought a very unhealthy development to high school subjects such as Geography, where the contents were heavily compromised.

The African countries’ curricula changes were largely influenced by changes in socio-cultural events, especially, breaking away from colonial domination in the 1960s. There was the need to break away from the colonial legacies and to equip learners to deal with the future and to be able to solve societal problems. Curricula developed thereafter, sought to teach values, such as respect for human dignity, cooperation and obligation to one’s country (Nzima, 2016). In Tanzania, curriculum change was dominated by values such as civic and cultural education. Similarly, Malawian curriculum was tagged “Malawi Pioneers” just to reflect citizenship and dedication (Kasuga, 2019).

Blignaut (2017) agrees that curriculum change should gear towards empowering learners to resolve social issues to do away with individualism and capitalism that characterized our current society. Referring to South African curriculum changes, he argues that current inequality and racial issues confronting the nation can only be addressed by a heavily socially-inclined curriculum. He further states that social knowledge is very vital in inculcating into learners, appropriate values and attitudes in

the fight against tribalism, corruption, social injustice and xenophobia that have characterised the society after democracy.

For curriculum change to bring about tolerance among citizens, the curriculum must be inclusive in approach so that the needs of sections of the society may be preserved. In view of this, the curriculum must include the interests of sections like, women, all ethnic groups, religious societies and people with disability (Anyon, 1979; Durrani, 2008; Durrani & Dunne, 2010). To achieve the above objectives of a harmonious society, curriculum change must be put together by different interest groups. Marsh and Willis (2008) believe that all sections of society, including local communities, parents, educators, learners, politicians, professional associations, religious groups, media must can bring about this change. The authors stipulate that curriculum designed with the help of stakeholders will not be met with resistance during implementation.

3.3.5. Social justice responsiveness

Closely linked with the social factors influencing curriculum change is social justice. In Singapore there was a call for curriculum change in order to introduce social justice into the national curriculum (Lee, 2013). The author supports the view that the social justice was needed not only at the local levels but national, international and global levels to bring about more equitable world (Merrett, 2000). The need to bridge the divisiveness caused by factors, such as socio-economic, environmental ethics, power relations and discrimination as entrenched in the society call for the national curricula to include social justice (Merrett, 2000; Kearns, 2001). The social justice agenda is necessary to empower the disempowered learners to contribute effectively to the world (Merrett, 2000).

The Finnish national curriculum, among other aims, includes equity and equality (Finnish National Board of Education, 2016). South African curricula changes were largely influenced by social justice. The country is one of the unequal, racial and disempowered nations in the world and in the apartheid educational era, curriculum was used to promulgate racial inequalities, therefore, the new administration is using it to teach against racism, so as to improve social cohesion (Blignaut, 2017). The author made it clear that: the curriculum through its content as well as choice of pedagogies is one of the central vehicles that should be utilised to teach about race and racism. Talking of pedagogy, Lee (2013) contends that, although, social justice has influenced curriculum changes in many countries throughout the world, teachers are always in dilemma as to what to teach in social justice class without hurting anyone. Blignaut (2017) supports the sensitivity involved in teaching social justice but asserts that it can be taught with proper guidelines.

3.3.6. Political responsiveness

Sometimes national and international political events are reasons for curriculum change (Jassen, 2009; Yasar & Seremet, 2009 Kasuga, 2019). Curriculum changes may be influenced largely by political changes in government in order to respond to technological advancement, economic and social needs of the nation (Jassen, 2009). It implies that curriculum is a vital tool for implementing socio-economic and technological development in order to address the needs and demands of any nation (Kasuga, 2019). Kasuga (2019) contends that most African curriculum changes are largely influenced by political decisions. The immediate curriculum changes made by most African countries were predominantly to dismantle colonial education and establish and restore human dignity, premised on preservation and appreciation of national tradition, individual freedom, responsibility, tolerance and respect (Nzima, 2016).

Sometimes, some of these political decisions are simply to undo what other or immediate past government did, just so current governments can take credit for changing the educational curriculum (Kiwia, 2000). Such changes, because they came about through political ideology and are not done by national consensus, most, are usually met with a strong resistance from stakeholders (Kasuga, 2019). Such unpopular political decision was taken in Tanzania by changing the curriculum to reflect a new high school grading system which was met by popular revolt from both educators and learners (Nyabonaki, 2013).

International agencies and their policies have been the reasons for some changes in curriculum of some Africa countries. In Tanzania, policies such as the Universal Declaration of Human Rights (1948), world declaration on Education for All (1990), the Millennium Development Goals and the Dakar Framework (2000) were among the international policies that fuel changes in the curriculum (Kasuga, 2019).

The influence of national and international politics in curriculum changes is not limited to African countries only. Yasar and Seremet (2009) reporting on curriculum 2005 in Turkey speak about how national and international political events influenced curriculum change in that country. According to the authors, the disintegration of the Ottoman Empire influenced the initial curriculum changes in 1973 and the current curriculum 2005 was largely influenced by the political events in Far East and North America.

Curriculum changes in South Africa have been described as a political project especially the Curriculum 2005 (C2005) because it was seen as lacking pedagogical development (Harley & Wedekind, 2003). The political nature of South African curricula has been highly criticised because it failed through its implementation to achieve its intended goals. The implementation of C2005 brought sharp division among stakeholders. While the majority Black educators hailed the change, the minority Whites took it with

scepticism and therefore, its implementation suffered. Harley and Wedekind (2003) state that because of the political nature of the formulation of C2005, it failed to achieve its pedagogical objectives of narrowing the gap between historically-advantaged and historically-disadvantage schools, instead the gap was widened. The curriculum, therefore, failed to achieve the social transformation it was intended for because the implementation of the change was overlooked.

3.4. EDUCATOR PREPAREDNESS TO RESPOND TO CURRICULUM CHANGE

Curriculum formulation alone is not enough, it must go hand-in-hand with its implementation. One cannot formulate curriculum and ignore its implementation since the two concepts are not the same. Blignaut (2017) identifies the two concepts as different and advises curriculum makers to consider implementation in their formulations. In his words:

> "Curriculum reformers often think that they only need to produce a technically sound curriculum and announce it to the world and implementation will proceed smoothly" (p1).

Robertson (2012) is also of the view that curriculum implementation should be considered during curriculum formulation. There are quite a number of researchers, (Bregman & Cohen, 1990; Hargreaves, 2000; Pridmore, 2007; Verspoor & Klosowska, 2008; Agyei & Voogt, 2011; Blignaut, 2017) who contend that the curriculum reforms should translate into classroom practices. Robertson (2012) explains that for curriculum to impact on teaching and learning positively, educators must not be reduced to only implementers but form part of the reformation. This is because educators are the professionals with a body of knowledge, and as experts, they have the professional academic freedom to participate in curriculum reform and implementation. He expresses disgust at the way the current educator status has been challenged by global curriculum and work reforms, by diminishing their participation and autonomy in curriculum reforms and by reducing them to implementers. According to Bregman et al.,

(2008) by involving educators in curriculum planning would not only encourage and empower them but would avoid a top-down approach in curriculum change which usually leads to disempowerment and forcing educators not to teach the reality in the classroom.

The role of educator involvement in curriculum reform and implementation has been echoed by Altinyelken (2010) earlier. According to Altinyelken (2010), by involving educators in the curriculum reform process, this will increase the understanding of the new curriculum and maximize the educators' teaching techniques. He, thus, expresses dissatisfaction about reducing the role of educators in curriculum change to only implementers which most often left them out of the design equation and therefore their teaching and learning strategies often do not match with the change.

While agreeing that leaving educators out of the reform process may result in a lack of understanding of the new curriculum and them resorting to teaching with traditional methods. Agyei and Voogt (2011) and Pryor, Akyeampong, Westbrook, & Lussier (2012) blame the lack of understanding of changes on educators' initial teacher training. According to Pryor et al (2012) a holistic training received by educators from their initial training institutions would make them adjust to new changes with or without any difficulty. Blignaut (2017) agrees that lack of alignment between the school curriculum and educator training institutions also poses challenges. The fact remains that the epistemologies of educators are remarkably determined by the educational training received and from the institution of training, since epistemologies of educator training institutions vary. The next section highlights the preparation of educators through initial training and professional training to deal with the change to ensure smooth implementation.

3.4.1. The path to becoming a qualified and quality Geography educator

Various countries all over the world have different criteria for recruiting educators to teach at high schools. In the same vein, different qualifications and training are given to educators depending on the need of the school subjects, therefore, teacher qualification requirements vary from one country to another. Two established paths, however, have been identified throughout the world: either specialized teacher training or a general degree with one year post graduate education training. The first path leads to four or three years of training to obtain Bachelor of Education degree (B.Ed) (Mastekaasa, 2011). The second path involves educators who had achieved their undergraduate degrees in specialized arts or science learning areas and they take one year post-graduate diploma or certificate in education. In countries such as Japan and South Korea, the minimum requirement for teaching at the high school is a four year Bachelor of Arts with Education (BA.Ed) or Bachelor of Science (BSc.Ed) (Ingersoll, 2014). In other developed and developing countries, for example, in Finland, where the educational system has been regarded as one of the best in the world, only educators with first degree and second degree are recruited (Puryear, 2015). Ghana is an example of countries where primary educators are trained at diploma teacher training colleges while high school educators are trained at the universities and are awarded degrees in education with specialized subjects (Akyeampong, 2003).Currently in South Africa, educators both primary and high schools are trained from the universities where they are awarded degrees (DHET, 2007).

3.4.2. The educator initial training in South Africa

Educator quality is important in achieving successful curriculum reform (OECD, 2013; Spaull, 2015; CDE, 2017). Any educator quality depends largely on quality of education received from initial educator training institutions (IET) (Harris & Sass, 2008; JET,

2014). In South Africa, educator initial training was characterised by unequal training because training was based on race. These differences bequeathed the black educators with poor content and pedagogical knowledge compared to their white counterparts (DHET, 2015; Wilmot, 2017). The current political dispensation is re-organising educator preparation in the handling of the country's diversity and on-going transformation (Wilmot, 2017).

Currently, a qualified educator in South Africa possesses a three- year post-secondary school qualification leading to the awarding of Secondary Teacher Diploma (STD) obtained from a teacher training college. The abolishing of the diploma-awarding teacher training colleges now requires educators to acquire four-year Bachelor of Education degree or a three-year undergraduate degree and top up with a one-year post-graduate certificate in education from the universities. The entry requirement into the teaching services at both primary and secondary schools, therefore, is the four year degree in education leading to the awarding of Bachelor of Education (B Ed) (DHET, 2007). The second requirement is the four-year Bachelor in Geography (BA or BSc) and one year post-graduate certificate in education (PGCE). Researchers believed that the two qualifications have an impact on what is taught in the classrooms. According to Wilmot (2016) the latter has been found to be too generalist in its attempt to prepare educators for both primary and secondary, since the training is more grounded in child psychology and sound pedagogy rather than subject specialties. Even the Geography courses taken were more inclined towards Human Geography at the expense of Physical Geography. Raselimo (2017) believes that those who obtained BSc have more strength in Physical Geography than Human Geography. The teacher education, therefore, needs to find a balance between the two modes of teaching subject specialisation, for secondary Geography.

3.4.3. Professional development

There has been ample evidence and research suggesting that a gap exists between initial teacher trainees and actual classroom teaching. Grundnoff (2007) and Langdon (2007) suggest that it is impossible for teacher trainees to complete one form of training for educators and expect them to acquire all that is required within the time frame at the college or university. The initial teacher training, therefore, should only be the first phase of being a professional educator (Grundnoff, 2007). In this setup, it is normal, hence, to find a gap between an experienced and novice educator. It is imperative to provide guidance, supervision and training required to these novice educators to upgrade their classroom practices.

Continuous teacher professional development (CTPD) has been identified as another path through which educators can be strengthened in their classroom practices, in order to improve learning and teaching. In South Africa, the departments of basic and higher education have initiated a number of programmes to address the weakness in teacher accountability. The first of these is the Integrated Strategic Planning Framework for Teacher Education and Development in South Africa (ISPFTED); the2011-2025 version was launched to address the poor quality of teaching and learning (DBE & DHET, 2011). The second initiative to address the teacher professional development is, the Master Teacher Development Plan (MTDP) (DBE, 2017) which was initiated to encourage and strengthen educator accountability. A point-driven continuous teacher professional development model was launched where all educators are issued a professional certificate to be renewed yearly. The model requires all educators to complete at least 80 hours professional development yearly. Wilmot and Irwin (2016) describe this as good opportunity for Geography educators to enhance their professionalism. The models, however, are not limited to professional development of educators only but also the professional capabilities of teacher unions (Wilmot, 2017).

As important and well-intended these policies are, their impact on implementation is very slow.

The traditional educator professional development has existed to provide varied in-services to uplift the work of educators. The development may be directed at unqualified educators to upgrade them or at qualified educators to prepare them for new roles as curriculum implementation, serving as refresher courses. For any effective professional development, the process must be directed at the educators' knowledge, skills, attitude and beliefs to improve their content or pedagogical knowledge or both (Desimone, 2009). It is imperative that curriculum reforms should be preceded by professional development to adequately prepare educators in their content and pedagogical knowledge, lesson planning skills and the use of diverse methodological approaches.

In recognition of the role played by professional development, both the national and provincial departments have been committing resources toward educator development through the district departments, however, there has been a mixed reaction among Geography educators towards professional development in the country. Some Geography educators consider the development as beneficial but inadequate while others label these trainings as irrelevant and time wasting (Wilmot & Irwin, 2016).

3.4.3.1. Effectiveness of professional development

The professional development of educators, as stated above, must achieve the needs of implementing the new curriculum; for these professional development initiatives to be efficient, they need, therefore to resolve the challenges confronting the implementation of the new curriculum (Mustafa, 2013; Tani, 2014; Fastier, 2016; Massey & Pretorius, 2017; Raselimo, 2017; Wilmot, 2017). The fundamental aim of organising these

programmes is to meet the needs of educators and to achieve the desired results. This means that professional development should not be done on wholesale basis, but rather to support the needs of individual schools and educator. According to Rogan and Grayson (2003) in-service training should support participants with both materials and non-materials needs.

> "The provision of outside support should be informed by the other constructs. The capacity of the school needs to be taken into account in determining the nature and extent of the implementation. Support with the desired implementation then needs to go hand in hand with the development capacity" (p, 1197).

Explaining the needs for workshops to educators, Rogan and Grayson (2003) state that the support should take into consideration the weaknesses and strengths of participants. Educators who have the capacity to implement the new curriculum should not be invited for such workshops since they would find these workshops irrelevant. Raselimo (2017) reports that an in-service training organized for Geography educators during the implementation of Education for Sustainable Development (ESD) curriculum, failed to achieve the intended desires. Most educators found the training uninspiring because the workshop gave very little information or no information on ESD implementation. Rogan and Grayson (2003) agree that workshops, for example, organized for capacitating school laboratory use would be irrelevant to participants from schools where there no laboratories.

To avoid educators' complaints, sometimes just distribution of materials is appropriate. Mustafa (2013) and Fastier (2016) report distribution of materials to participants, during training sessions in their various countries. Mustafa (2013) reports that in Turkey, to avoid wasting of educators' time, relevant materials were provided during the Curriculum 2005 workshops. Fastier (2016) reports that in New Zealand, electronic formats of materials are preferred and made accessible to educators at convenient times to avoid unnecessary time-wasting workshops.

3.4.4 Teacher knowledge and competence

In the middle of arguments involving the role of educators in the participation and implementation of curriculum reforms in both developed and developing countries, it is believed that the role of educator as implementer is crucial. The educator is regarded as an essential determinant of effective teaching and learning, therefore, the initial training and professional development must grant educators the knowledge to use in their practices (Darling-Hammond, 2006; Hattie, 2009). The acquired knowledge must enhance or correct any misconception in the learners' belief about a particular subject. According to Reinfried (2006) learners' understand lessons based on their construct of how the world works which, at times, are inconsistent with experts' views and which must constantly be reinforced through learners' daily encounters; because of the daily reinforcement, some of these informed ideas are often difficult to eradicate (Lane, 2015).

One of the educator's most difficult task is to develop knowledge with specific strategies and activities for promoting learners' understanding of subjects. The development of this knowledge creates awareness of alternate conceptions and difficulties learners have about specific topic areas (Dove, 1998). Shulman (1986) describes this knowledge as pedagogical content knowledge (PCK) which is very central to effective teaching and learning (Shulman, 1987). The pedagogical content knowledge of educators represents how they present content knowledge in ways that learners can understand. This knowledge also enables the educators to place the curriculum in the social, economic and political context in which the reform is placed. PCK is defined as:

> "…the ways of representing and formulating the subject that make it comprehensive to others…an understanding of content makes the learning of specific topic easy or difficult" (Shulman, 1986. p, 9).

Shulman (1986) postulates that PCK consisted of two components -knowledge of multiple methods for representing and organising subject content to make it comprehensible to learners, secondary, knowledge of what makes the learning of a particular content easy or difficult for learners. The former knowledge requires relevant analogies, illustrations, explanations and examples, together with specific strategies and activities that promote learner understanding. The latter knowledge is informed by reorganization of learners' understanding in order to make the learning of a particular subject, easy or difficult. Shulman (1986) postulates that attempt to identify and demystify learners' common conceptions developed prior to instruction is necessary. According to Shulman (1986) and Lane, (2015) overcoming these beliefs is the foundation of the pedagogical content knowledge and it requires development of strategies representations for addressing the misunderstanding. Equally, this knowledge is important for development of valid and reliable assessments to diagnose and address learning problems in schools (Lane, 2015). Important as the second component of the PCK is in identifying learners' common alternative conception in Geography, it has been ignored in geographical research (Lane, 2015).

Exploring knowledge significant for addressing Geography learners' ideas of misconceptions, Lane (2015) argues that educators with well-developed knowledge in this area, are in better position to make sense of learners' actions and beliefs and to develop strategies for addressing these ideas through instruction. Research in science education identified educator orientation as one big factor in realizing this knowledge. According to Magnusson et al (1999) this knowledge defines educators' epistemological beliefs about teaching and learning and serves to shape the purposes and goals of instruction, as well as acting as a lens through which educators view events in the classroom.

Educators who are able to combine this knowledge as derived from their daily practices, are considered practitioners and experts in their field, although, the source

of this knowledge has been contended by researchers (Arenas-Martija, 2017). The author continues by classifying the sources of the knowledge as either, formal or informal. The formal is referred to as scientific discipline educators are trained to teach and are related to their research works. The second source referred to as informal is derived from the educators' experiences from their work environment including colleagues, internet and from teaching materials.

There is an ongoing debate about acquisition of pedagogical content knowledge (Lane 2015; Reitano & Harte, 2016). Lane (2015) argues that PCK is acquired more through teaching experience and therefore, resides more in the experienced educators than in the novice educators. Reitano and Harte (2016) believe that the novice educator does not have a full control over teaching methods and strategies and only depends on the supervising educator's views which may be different from what is supposed to be taught.

3.5. CURRICULUM CHANGE AND TEACHING OF GEOGRAPHY IN THE CLASSROOM

Educators are prepared in readiness to embark on teaching and learning in the classroom through both initial and continuous education. The preparation gives a comprehensive understanding of the curriculum to be taught in the classroom. This section of the literature identifies some key areas focussed upon in the CAPS including, some geographical skills, as well as educational and classroom practices. One of cardinal aims of the new curriculum (CAPS) is to reduce the tendency to overemphasize textbook knowledge and concerns that the previous model was difficult and complicated. The new curriculum seeks to reinforce the links between the curriculum content and learners' real lives, as well as the connection between modern society and scientific and technological advancement. The Geography curriculum emphasizes real

life applications and that learners must appreciate the learning and value of Geography through their personal experiences (DBE, 2011).

The new curriculum, therefore, advocates the development of learners' ability to engage in self-regulated participation, exchange, and exploration as opposed to the previous methods of receptive learning, memorisation and mechanical drills. The new curriculum, therefore, seeks to promote and transform the teaching values and revamp methods of instruction and learning. This section of the literature review examines the impacts of the curriculum reform on instructional practices and learners' learning; such as impacts on teachers' syllabi, teaching methods, and views on learners' performance. The trend towards teacher-centred teaching methods has been reduced and replaced by a learner-centred approach implemented with collaborative learning and inquiry-based learning in the classroom.

3.5.1. Features and classifications of curriculum

Curriculum change is a learning process for both educators and learners, therefore, any curriculum design and change needs to be understood by the stakeholders, especially, educators and learners who are the agents of the change. Even though, curriculum design and change are complex phenomena (Amino, 2009) they must be simplified in order for the curriculum to be understood (Sahlberg, 2006). According to Sahlberg (2009) to demystify the complexity of curriculum process the following must be adhered to and should be the main features of the curriculum.

In the first place the stakeholders must have knowledge about the reform. The curriculum change should be driven by change knowledge from policy-makers, education specialist and educators. Secondly, the curriculum change should be informed by how easily educators and learners can adopt it. The change should be organised to avoid overload, confusion, rather it should be simple, for both educators

and learners. Finally, the new curriculum should specify what is to be taught, how it should be taught, what is to be learnt and how it should be learnt.

In the same vein, curriculum experts believe that curriculum change brings about transformation in teaching culture where emphases are placed on methodologies and learning styles and also the philosophical basis of the curriculum (Tyler, 1949). In both developed and developing countries the change serves as reference point for educators. Official teaching and learning revolve around where textbooks, educator guides and teaching and learning resources are organized, thus, curriculum is directly linked with educator teaching approaches, strategies and practices, classroom activities as well as assessment. According to Alexander (2009), the curriculum becomes more useful and meaningful when educators and learners transform it through classroom activities as educators' and learners' activities in the classroom are mutually exclusive in transforming the curriculum (Bernstein, 1975; Alexander, 2009).

Curriculum development models have been identified throughout the world and are based on four identifiable bases for curriculum development. The first of these is the Outcomes–Based (OBE) curriculum which is described as the most democratic way of learning (Botha, 2002). This is structured with learning outcomes that are to be achieved by learners at the end of their learning experience. The main aim of this curriculum is to prepare learners for the world of work. The instructions and assessments are organised to enable learning to be successful in society.

The content–driven curriculum puts the educator at the centre of knowledge transmission. Bernstein (1975) asserts that this curriculum places emphasis on content with increasing specialisation from lower order of learning to the higher order. The discipline is organised around explaining knowledge to be dispensed and how it should be taught at all levels (Bernstein, 1975).

The Process–driven curriculum is integrated in relation to contents, hence, they stand in relation to one another (Bernstein, 1975). This approach gives learners the discretion over what to learn. Assessment is formative, based on personal, coursework, and open–ended assessments (Ross, 2000). Like the competence or outcome–based curriculum, the objective – driven curriculum is organised on a set of learning outcomes which are behavioural in nature. The expected behaviours involving application, analysis and comprehension are organised from simple to complex (Tyler, 1949). The content of objective–driven curriculum is to achieve relevance at the workplace.

3.6. GEOGRAPHICAL KNOWLEDGE AND CURRENT EDUCATOR PRACTICES

The modern Geography is no longer concerned with the land-environment but basically looks at the entire socio-economic and ecological issues (Kross, 1994). The changing of the knowledge base of Geography is also accompanied by the way the subject is taught and learnt. The previous cognitive knowledge where knowledge is processed and stored for the future has been done away with. According to Reinfried (2006) those were the days when learning constitutes perception, keeping in mind, remembering, imagination, planning and problem-solving. The new paradigm, known as ‘constructivist’ aims at getting an idea of a problem or a conflict, to clarify facts, to establish connections and to act reasonably. This knowledge is based on the assumption that learners construct their own knowledge and perception of the world (Reinfried, 2006). Gasser (1999) contends that this knowledge is proactive and makes learners constructors of their own knowledge, can be used not once but in several situations. In this way the knowledge formed by the learners has become part of them and will make them independent thinkers (Gasser, 1999). This knowledge is acquired through self-induced and autonomous learning methods, such as case study, role play, project work, field work, among others.

The post-apartheid curricula - NCS and CAPS - were modelled on this new knowledge. The DBE (2010) stipulates that the new national curriculum of Geography is enacted to allow learners to acquire knowledge, skills and attitudes. The curriculum suggests an integration of knowledge base on local, national and international content, therefore, it outlines suitable learning arrangements based on the constructivist approach such as learner-centred and active learning settings (DBE, 2010). Reinfried (2006) describes these settings as allowing learning to be autonomous.

The new curriculum, therefore, advocates the development of learners' ability to engage in self-regulated participation, exchange, and exploration as opposed to the previous methods of receptive learning, rote learning and mechanical drills. The new curriculum therefore, seeks to promote and transform the teaching values and revamp methods of instruction and learning. This section of this literature review examines the impacts of the curriculum reform on instructional practices and learners' learning; the impacts include those on syllabi, teaching methods, and views on learners' performance. The trend towards teacher-centred teaching methods has been reduced and the learner-centred approach implements collaborative and inquiry-based learning in the classroom.

The next section starts with the general overviews of learner-centred and enquiry-based learning. Secondly, the discussions will examine the two approaches in the constructive paradigm. Finally, focussed upon will be the contestation of the approaches in teaching of Geography in the classroom.

3.6.1. The concept of learner- centred approach

Learner-centred teaching approach is a fundamental paradigm shift from the educator being the centre of attention in the classroom to placing the focus on learners in the

whole teaching and learning process (Reinfried, 2006). The learner-centred approach is a central feature of the constructivist paradigm of learning with learners taking an active part in the lesson. According to Altinyelken (2011), learners are sense-makers developing an organised knowledge based on their previous knowledge. This knowledge can be organised around an individual (learner) being the primary actor in the process of the making meaning in the learning process. In this knowledge construct, learners play an active role and are engaged in the learning activities. This kind of knowledge construct is referred to as 'radical constructivism' (Muzaffar, 2010).

The social constructivist approach builds knowledge construct not only from personal experience but from interaction with others in their environment (Reinfried, 2006). The knowledge in this case, largely resides in the culture and society of the individual learner. The cognitive constructivist approach describes a form of knowledge where knowledge is processed and stored in the brain until it is ready to be used in other contexts. This knowledge is acquired through systematic learning and inductive teaching (Reinfried, 2006).

3.6.2. Features of the learner-centred approach

The learner-centred approach to teaching and learning as enshrined in the constructivist's paradigm of learning, places the learner at the centre of teaching and learning. The overall aim of the concept is to enhance learner knowledge which is dependent on the instructions of the educator**.** In order to achieve the learner-centred approach of teaching and learning, the role of educators in the classroom is minimised. The educator is only to motivate, facilitate, sometimes structure and guide learners to discover their own knowledge (Altinyelken, 2011).

Aitken and Sinnema (2008) outline the role of educators in social sciences education is to allow learners to achieve maximum results in the classroom. This teaching approach should connect the teaching contents and learning objectives to learners' life. In this way, the learners will be able to find the relationship between their own experiences and learning contents. According to Aitken and Sinnema (2008) the learners make sense of the new information, link it to the concepts and store them in memory by process of selecting, sorting and integrating it with their previous knowledge. This sense-making process can be achieved when educators are able to identify and understand the previous knowledge the learners come into classroom with (Reinfried, 2006).

The second feature of the learner-centred lesson is that the educators align the lesson out-comes with learners' previous knowledge through the use of teaching and learning resources (Sinnema & Aitken, 2012). The desired result can be achieved when the educator makes the alignment transparent enough if possible, by using models (Aitken & Sinnema, 2008).

The third feature of the successful operation of the learner-centred teaching approach is for the educator to prepare a conducive environment for teaching and learning to take place. The learning environment should be friendly, accommodating enough for learners to manoeuvre (Sinnema & Aitken, 2012). This learning environment may include the educator teaching the necessary skills needed or the provision of materials or the creating of dialogue situations for the learners to engage in healthy discussions. The engagement is to afford both the learners and the educators the opportunity to operate freely in their spaces (Sinnema & Aitken, 2012).

Finally, another feature is for the educator to present a lesson that is interesting to learners. The presentation of the lesson must be able to motivate and whip the interest in the learners by appealing to their different past experiences. Since learners have

different experiences, and are not equally endowed, the educators must be sensitive towards each learner, not to demoralise causing learners not to participate in the lesson (Sinnema & Aitken, 2012).

The implementation of learner-centred curriculum requires learning strategies that connect lesson to learners' life, afford learners conducive learning environment, connect learners' experiences with the lesson objectives and arouse learners' interests in the lesson. The Geography curriculum prescribes the active learning strategies with emphasis on enquiry-based strategy to achieve the learner-centred approach to teaching and learning (DBE, 2010). The teaching strategies are described in the next section below.

3.6.3. Teaching methods in Geography

Teaching methods are means by which Geography lessons are delivered in the classroom to achieve the subject's intended desires. Different methods are available to Geography educators to create opportunities for learners to participate and understand the lesson in order to create knowledge. Teaching methods have been defined as varieties or combination of strategies that the educator uses to impart knowledge, skills, values and attitudes to learners during teaching and learning process (Fisher, 1998). Different methods are available to educators, such as discussion, project, inquiry, lecture, questioning, field trip, activity based, demonstration, simulation and role, however, the choice or a combination of choices depends on the objective and content of the lesson (Desta, 1984; Olusegun, 2006). In the choice of method(s), an educator must consider the active participation of the learner. Fisher (1998) describes methods that make learners participate actively in Geography lessons as 'active-learning methods'. This is because these methods cause learners to generate knowledge through their own interaction with the lesson (Fisher, 1998). In Fisher's words:

"…..activity where learners are given a marked degree of autonomy and control over the organization, conduct and direction of learning activity, and used to improve level of motivation, recognize inter-disciplinary nature of real-life situations as well as improve the level of students' understanding" (Fisher, 1998:53).

3.6.3.1 Inquiry-based strategy

Geography education encourages enquiry-based learning (DBE, 2011). The IBL takes its roots from the epistemology of scientific research requiring learners to acquire theoretical content, thinking skills and processing skills (Haug, 2014). CAPS within IBL affords learners the opportunity for them to develop scientific skills and think scientifically (DBE, 2011). Inquiry learning technique presents learners' knowledge and information in a very systematic way. According to Olusegun (2006) inquiry learning involves probing, inquiring, investigating, analyzing, discovering, evaluating, questioning, thinking, exploring, experimenting, collecting to update or validate knowledge and information in Geography.

The IBL has been described from empirical research studies to be motivational and stimulating learner interest in learning Geography (Olusegun, 2006). This learning process makes learners autonomous in participating and making decisions as prescribed by constructivist approach of learning. Learners are able to contribute to the development of their own knowledge and also the opportunity to interact with their environment (Olusegun, 2006). Sweller and Clark (2006) suggest that IBL provides learners the ability to keep the developed knowledge and information in memory for long-term. Catling and Willy (2010) corroborate the point that through IBL, learners are able to become critical thinkers and intellectually matured.

As much as are the benefits of IBL as learning strategies, the concept is very blurred to most Geography educators. The lack of understanding of the term is the main cause of its poor implementation in the classroom (Butt, 2002; Roberts, 2003). Since educators fail to understand the term, they are also not aware of the different skills to be employed, as a result they are not able to combine the skills and may stick to the use of only one or use them in isolation (Catling & Willy, 2010). Olusegun (2015) contends that even educators who understood enquiry-based learning also fail to implement the approach because of lack of resources and teaching and learning support in the schools. The success of inquiry learning depends on multiple resources, such as journals, diaries, historical artefacts, not only textbooks which even most schools lack (Prokes, 2009). Scott 2015 stipulates that multiple resources are essential for teaching to achieve skills for life-long learning, communication and critical thinking.

3.6.3.2 Cooperative and group learning methods

Cooperative learning method is another form of promoting learner-centred learning. Cooperative learning is synonymous with group work. In cooperative learning, learners of different learning abilities are put together in group for common task (Salako, Eze and Adu, 2013). What distinguishes cooperative learning from ordinary group work is the interdependence, individual and group accountability, promotion of interaction, social skills and group processing (Hennessey & Dionigi, 2013; Johnson, Johnson & Smith, 2013). This method of learning leads to high success since the group is composed of learners of different gender, social and academic background.

It is advisable for educators to employ different teaching and learning methods and possibly combine them to achieve effective and exciting classroom situations. The success in using a particular or combination of method, however, depends on subject matter to be taught, the objectives to be achieved, teaching material availability, and

some consideration of the sensitivity of the class in terms of gender, ability level and age.

The teaching and learning methods discussed in this section are not exhaustive, as the reviewed literature considered only teaching strategies to achieve learner autonomy through learner-centred approach as prescribed by the NCS and CAPS. The next section considers the influence of these learning strategies on performance of learners in their final matriculation examination.

3.6.3.3. Project work and activity methods

Project method is another form of learning in the classroom. The project method in Geography class involves learners' practicalising concepts. According to Olusegun (2006) it involves learners doing or creating the real world to clarify concepts in Geography. This could involve making of maps, collecting rocks and materials specimens of geographical interest and sometimes drawing to represent ones' experience or an envisaged future (Olusegun, 2006). Learners derive benefits from undertaking projects that create opportunity for them to initiate their own idea, create objects, and derive maximum satisfaction from their efforts (Olusegun, 2006).

Reinfried (2006) states that projects are not frequently used in the Geography classroom, although, they allow learners to have practical hands-on lessons. He attributes educators not using projects to the type of previous training received from training institutions. Reinfried (2006) explains that Geography is a social subject that provides the best opportunities for the use of project, however, large amount of time is needed to prepare project work; lack of teaching and learning materials and infrastructure also contributed largely to the inability of educators to engage learners in project activities.

Closely linked to project work is the activity method, where learners learn through engagement in activities, such as drawing, modelling or collection of materials. This can also be a report from a field trip where learners link what they saw on their trips to their creativity skills. This method is important in linking the outside world and the classroom activities (Olusegun, 2006). These tasks can be undertaken individually or in groups to make the learning effective.

The Geography CAPS policy document prescribes both project and activity works for learners, however, most educators find it difficult to differentiate activities termed ‘project work’ or ‘activity work’. The difference between the two largely rests considerably on the length of time and the initiatives of the learner under the guidance of the educator. In a project work, a long period of time is given for working outside the classroom with little or no guidance from the educator, or the activity can be classroom-based under the guidance of the educator.

3.6.3.4. Discussion method

Discussion method has been described as the most widely used learning strategies in Geography lessons (Olusegun, 2006). This form of learning takes place between educators and learners as well as, learners and learners. It is a daily interaction either within the classroom or outside the classroom. Olusegun (2006) describes this method as an ‘unconscious method’, although, it can be planned and systematically be used in the classroom. The discussions can take the form of questioning and answering where clarifications are sought with the help of the educator.

3.6.3.5. Fieldwork

Learners like to encounter the world, therefore, they prefer teaching strategies that permit hands-on (Reinfried, 2006). Field trips are one the hands-on teaching strategies Geography educators employ in their lesson. Field trip is an educational and well-organised trip or excursion to a place of interest, such as institutions, factories and industries and geographical environments (Oladimeji, 2011). The purpose of the trip is to afford learners a chance to consolidate or discover new geographical knowledge outside the classroom, through an interaction of physical, mental and emotional experiences (Oladimeji, 2011). Olusegun (2006) observes that field work in the teaching of Geography is a “sine qua non” (pp 94) because it affords and enhances learners’ observational and critical-thinking skills.

It is established through several studies that a field trip is an essential strategy in delivering Geography lessons in a practical manner (Willy & Humphreys, 1985; Olusegun, 2006; Oladimeji, 2011). A field trip is acclaimed to be one of the easiest way of teaching abstract topics and higher-level concepts in Geography (Willy & Humphreys, 1985). It also provides the learners an opportunity to practically and physically consolidate whatever has been learnt in the classroom (Olusegun, 2006).

In spite of the importance and numerous opportunities offered to both educators and learners to use the strategy, field work remains one of the few learning methods used in Geography lesson delivery, both in developed and developing countries. Oladimeji (2011) reports that field trips are not utilized in Nigeria, while in the United States of America and many European schools, field trips are often used. The limited use of field trips in the developing countries has largely been attributed to resources and time constraints. This is because most educators consider travelling to far places for their trips instead of their immediate environment, although, the immediate environment is

also relevant for learning geographical phenomenon. Olusegun (2006) explains that educators should familiarise themselves with events and phenomena in their immediate environments.

3.6.3.6. Learner achievement in Geography

The aim of curriculum reform, all over, is to equip educators with new skills to teach and assess learners. Assessment of learners is done at both school and national levels and sometimes international level. So far Geography has not been tested at the international level as is done in Mathematics and Science. The general assertion is that implementation of new curriculum takes a longer period for change in learner performance to be realised. Reinfried (2006) asserts that it takes longer for educators to adjust to changes as they continue to hold onto their old habits and tradition. Geography educators need to receive enough training overtime to adjust to the philosophy of the new curriculum. It is understandable that high result from the national senior certificate examination during CAPS may not be immediate. The final assessment of learners comprises of School-Based Assessment based on promotion marks in Grade 12 which constitutes 25% of the marks and an external end-of-year examination, the National Senior Certificate (NSC) making up 75% (DBE, 2012).

Curriculum Assessment Policy Statement as the name implies puts more emphasis on national assessment and learner achievement. One of the goals of changing the curriculum from the NCS to CAPS is to improve learner performance in all subjects, including Geography, in all schools. The success of the curriculum will largely be determined by the performance of Grade 12 final examination. In the same vein, the performance in the final examination is also a measure of educator's understanding and implementation of the new curriculum. There is an element of contradiction here as the learning approach adopted is the learner-centred which lays emphasis on strategies to

achieve learner autonomy, but not learner achievement. The CAPS emphasis on performance of learners is likely to cause educators to teach with the wrong strategies. Reinfried (2006) states that Geography educators in Switzerland could not teach with strategies involving hands-on activities but they relied on textbooks because they considered inquiry-teaching strategy as time wasting and it would not allow them to achieve the right results in the classroom. Lane (2015) corroborates the view of Reinfried when she finds conflicting epistemological beliefs between educators and the philosophical constructivist curriculum of Australians that is using transmission strategies in their Geography lessons.

The analyses of the NSC result from 2008 – 2013 (the period of NCS) and the 2014 – 2018 show a decline in the previous results in Geography. This is contrary to the expectation of curriculum formulators. Several factors may be responsible for the decline in performance which may be measured against the preparedness of educators to implement the new curriculum.

3.7 CURRICULUM CHANGE AND PROVISION OF INFRASTRUCTURE AND RESOURCES

The main role of educators is to translate the curriculum into classroom reality and most often this is problematic resulting in a great deal of time and money being wasted in developing the curriculum. The curriculum may contain visionary and educationally-sound ideas as the National Curriculum Statement and Curriculum Assessment Policy Statement were hailed by many, however, the desired implementation results are still fully to be realized. In this section the focus is on challenges faced by educators during the implementation of the new curriculum, especially, the change from NCS to CAPS. Much discussion has been held by various authors and researchers on the implementation of the new curriculum and some theories regarding challenges were formulated (Porter, 1980; Verspoor, 1989; De Feiter et al*.,* 1995; Rogan & Grayson, 2003). Several factors were identified in the literature, which can restrict curriculum innovation. Factors such educator training and qualification have been discussed

earlier. However, other factors relating physical infrastructure, instructional materials, clarity about the curriculum change, public examination, time and organizational arrangements are discussed in the subsequent sections.

3.7.1. Infrastructure needs of schools

Blignaut (2009: p, 88) summarises that:

> "If the contextual realities in which educators are working are added to the existing problems, it becomes clear why it is so difficult to bring about change".

Teaching and learning is made easy when good infrastructure is available, therefore, curriculum implementation cannot be successful without the relevant infrastructure. The lack of school facilities, such as classrooms, libraries, resource centres, school halls, desks among others impede effective implementation of the new curriculum (Verspoor, 1989; Hopkins & MacGilchrist, 1998; Blignaut, 2009). In most underdeveloped countries, the education sector is unable to adequately fund schools and this affects provision of quality facilities and affects teaching and learning in such institutions (Kelly, 1996).

Infrastructure in government schools in Ghana has been described as inadequate. Those that are available are also reported to be in deplorable state and unsafe to use (Kelly, 1996). The situation according to Kelly (1996) is worse in the remote rural schools where shifts are run to take care of the deficits in infrastructure. In South African context, schools are classified as historically advantaged and disadvantaged schools. The historically-advantaged schools have magnificent buildings and well-designed educational programs in contrast to the broken and mud buildings scattered in the locations and informal settlements (Rogan & Grayson, 2003).

The deficit in infrastructure development in schools makes it impossible to implement curriculum change on the same scale. Hopkins and MacGilchrist (1998) suggest that implementation of new curriculum should consider strategies directed at different schools based on their infrastructure capacity. A blanket implementation of measures across schools regardless of their infrastructure needs may only benefit the advantaged schools. Jansen (1999) argues that a new curriculum like NCS and CAPS in South Africa must take cognisance of these measures in order not to disadvantage the already disadvantaged. He advocates a strategy that is deliberately directed positively towards the disadvantaged schools.

3.7.2. Lack of equipment and materials

The infrastructure needs of schools are closely linked with provision of facilities. Schools should have well-furnished classrooms with desks, tables and chairs, libraries stock with relevant books and computer centres ready for implementation of new curriculum. Kelly (1999) reports limited supply of instructional materials and equipment, such as science equipment, library and even writing materials, such as chalk in schools in Sub-Sahara Africa. He explained that the inadequacies and battered materials are to be shared by a large population of learners creating over-crowding which makes it impossible for effective learning and teaching to take place (Kelly, 1999). This kind of imbalanced situation will not promote effective implementation of a new curriculum.

Most schools in South Africa are battling with inadequate facilities and equipment. There are still schools without computer centres, libraries and laboratories and constant supply of electricity. National Educational Infrastructure Management System (NEIMS) report of 2016 indicates that there are over 5000 schools without laboratories, about 1500 are without computer centres and about 343 schools without electricity. This rather

bleak situation poses a threat to teaching and learning of Geography since all these facilities make teaching and learning of the subject effective (NEIMS, 2016)

3.7.3. Availability of Resources

3.7.3.1. Textbooks

Resources form part of the essential tools for the implementation of curriculum reforms; one such resource is the textbook. Most new curricula shy away from textbooks as they are thought to encourage rote learning, however, it is still a valuable resource for the success of implementing the new curriculum (Tani, 2014). It is necessary, therefore, to prepare textbooks according to the new curriculum in order to achieve the defined pedagogy and learning strategies (Yasar & Seremet, 2009; Tani, 2014). As a guide to curriculum development and implementation, textbooks must have contain what is required to be taught in the Geography classrooms and must be available at the start of the implementation of the change. In Finland, Geography textbooks are written and often treated synonymously as curriculum, hence, the textbook content is what is taught in the classroom (Tani, 2014).

One important characteristic of Geography textbook is that it must give enough space to discovery, exploratory and expository learning strategies (Yasar & Seremet, 2008). These learning strategies must capacitate and encourage learners to take part in research and increase learner motivation in the teaching-learning process (Yasar & Seremet, 2009). Yasar (2008) further states that Geography textbooks should be written clearly and concisely and take into consideration all cognitive levels; both low order and high order should be satisfied. Reinfried (2004) is of the view that Geography textbooks must be written clearly with illustrations and pictures since learners prefer pictures to enable them encounter the real world, however, there has been some concern expressed about the standard and quality of high school Geography textbooks.

Researchers have found that some textbooks do not meet the right standard and quality, because they do not have the required materials and are written with very scanty information (Ramatlapana & Makonye, 2012; Wilmot & Irwin, 2015; Manik & Malahlela, 2018). In an analysis of six Geography textbooks, Ngubene (2009) identifies some shortcoming with regard to the content and assessments. His first assertion was that the textbooks contain only formal knowledge with limited everyday knowledge of the learners. The textbooks were found to have unbalanced assessment tasks, contrary to Yasar's (2008) view that Geography textbook should have balanced information on the different cognitive levels. Most of the questions in the text were on understanding, with few questions challenging learner cognitive levels of reasoning (Ngubene, 2009). Similar study in the Scandinavia schools identifies various degrees of anomalies in the Geography textbooks. Manik and Malahlela (2018) identify a mismatch between texts and illustrations especially in the human Geography textbooks.

Despite the short comings in the writings and material contents, it is worrisome to realise that schools do not receive textbooks before the start of the program. In South Africa, textbook distribution to schools has been a contentious issue (Blignaut, 2009 ; Mtshali, 2013; Manik & Malahlela, 2018). Textbook supply to schools in South Africa is constrained by funding. The issue of selection and availability of textbook must be addressed by the curriculum formulators. Failure to address these issues would cause educators to teach the old things from the previous curriculum instead of the new one (Mustafa, 2013).

3.7.3.2. Information Communication and Technology and Geographic Information Systems and teaching and learning

The NCS and CAPS have embraced the inclusion of Information Communication Technology and it is receiving increasing attention (Department of Education, 2003). In

Geography education in South Africa, there is an increasing focus on Geographic Information System (GIS). This current computer technology was introduced in the GET and FET phases to improve teaching and learning of map work and the technology includes the use of hardware and software (DoE, 2003). The hardware includes equipment, such as computers, laptops, DVDs, scanners and whiteboards while the software includes operating systems and program (DoE, 2003). Van de Schee (2003) postulates that the use of technology in the classroom to teach opens learners to better understanding of Geography lessons, especially, difficult concepts. In Singapore, technology affords learners an opportunity to handle computer devices (Lim & Lee, 2004). The use of ICT was an opportunity for enquiry learning in Geography where learners were afforded the opportunity to analyse digital images of the earth features and other geographical phenomena (Lambert & Bladerstone, 2000; Bėneker, Palings & Krause, 2015)

Even though, studies have not proven a strong relationship between the usage of technology as method of teaching and learner performance in the final matriculation examination, the learner participation in class has been encouraged (Ncube, 2018). The challenge faced by township and rural schools in the use of ICT and GIS has been attributed to number of factors. NEIMS (2016) suggests that as high as 67% schools are without computers while about 6% do not have electricity. This report clearly shows that a high number of schools cannot utilize ICT nor GIS.

3.7.3.3. Instructional materials and teaching learning

The educator's ability to teach to the current methods of instruction of the new curriculum depends on availability of instructional materials. Fisher (1998) confirms that instructional facilities such charts, drawings, maps (topographical and orthographic photo), drawing instruments and computer technology are very vital for teaching and

learning of Geography. If learners are to accomplish skill and abilities in Geography, resources are vital. The problem of teaching map work in schools is gradually becoming problematic for both teachers and learners. The teaching of geographic information systems most of the time is reduced to paper exercises instead of practical use of computers and accompanying software (Eikli, 2013; Fleischmann & van der Westhuizen, 2017).

3.7.3.4. Time utilisation and curriculum implementation

Curriculum implementation and teaching and learning are time-bound. Depleting of class time on other things rather than teaching is detrimental. Significantly, most of the time lost is due to educator and learner late coming, not going to class on time, not going to class at all, not maintaining learning activities during classes and leaving the schools during school hours for training, union meetings (NEEDU, 2013 as cited in NEEDU, 2014). Many educators, especially those in the rural areas face transportation and housing problem and do not get to school on time and cannot stay in school until schools close. According to Wilmot (2017) educator staying far from school contributes to about 10% teaching lost time, annually.

Time is very important in teaching of Geography, especially, tasks involving mapwork. In his research work on curriculum implementation in Turkey, Mustafa (2013) identified time as a constraint on teaching mapwork. Educators in Turkey find the time allocated to teaching Geography insufficient and failed most at times to complete their curriculum.

3.8 CHAPTER SUMMARY

Chapter 3 described the theoretical and empirical evidence supporting the effects of curriculum change and teaching of Geography in Grade 12. The study has been placed in the constructivist approach where curriculum change is to bring about change in the classroom situations. This change must be reflected in the way teaching and learning is conducted in the classroom to provide economic, socio-cultural and political knowledge for learners. The chapter explored the preparedness of educators to effect change, either through their initial training or professional training. In the midst of change, infrastructure and resources play a vital role in ensuring the desired results, otherwise there is no change. The next chapter discusses the blue print followed in the conduct of the study.

CHAPTER FOUR

RESEARCH METHODOLOGY AND PROCEDURES

4.1. INTRODUCTION

Research may be considered as being in the knowledge domain and is consumed by very large populations including, academics, policy formulators, planners and government for developmental purposes. As a result, a careful approach is needed to produce and publish accurate results. Research is seen as solution to a problem, hence, a systematic approach is needed to arrive at the final result through collection, analysis and interpretation of data. In so doing, the research work can serve as a crucial tool for not only advancing academic knowledge but promote progress in society. The processes and practices that were followed in arriving at the aim and objectives of this research have to be outlined. A well-thought out approach was followed considering the long-term effects this result would have on the future of South African education. The entire chapter four is dedicated to explaining the research process from conception of ideas till the final result.

This chapter is presented in two sections. The first section deals with the methodological issues, while the second section dwells on the research methods. Most often the two concepts are used synonymously by researchers (McGregor & Murnane, 2010). The researcher, however, will attempt to differentiate between them. The research methodology is explained in terms of philosophical position and theory of knowledge that guided this research. The research methods are explained in terms of procedures which include, research design, data collection instruments, the data collection process including sampling techniques, data analysis and data interpretation.

The chapter ends with the various ethical considerations taken to avoid compromising the final research result.

In outlining the research methodology, the reviewed literature on curriculum and implementation in South Africa and elsewhere has influenced the entire research work. The result tries to establish a positive relationship between quality curriculum development and implementation and teaching and learning of Geography in schools perhaps, not only in South Africa but the world at large since the literature had a wide coverage.

4.2. RESEARCH METHODOLOGY

A research is to produce a new knowledge either in the social or natural sciences domain. The new knowledge is intended to inform scholarship or the economy. A researcher is therefore guided by a set of principles, assumptions, concepts, values and practices to produce trajectory for the scholarly environment. I must therefore, hold a world view that serves as the standard guiding what is being studied. Two major world views have been identified in the past that serve as main philosophy guiding researchers. These world views are to serve as a standard or a philosophy to be followed in soliciting information from the participants and the role of the researcher in the whole information gathering. The revolution led to another world view that opposed the positivists philosophy. The new formation believed that relying on the positivists approach would not enhance the integrity of the social sciences. These philosophies underpin the entire research including the research questions and the procedures such as sampling, data collection, data analysis, conceptual or theoretical frameworks and the manner to report the final research.

The main point of departure of the two philosophies has been (i) what counts as knowledge and how this knowledge come to people (epistemology), (ii) what counts as nature, reality, feeling, existence or being (ontology), (iii) what is acceptable as rigour and interferences in the development of judgements or insight (logic) and (iv) what counts as fundamental values and what counts as consciousness (moral choices, ethics and normative judgments) (axiology). This research will be underpinned by the interpretive philosophy

4.2.1. The interpretive paradigm

Interpretive is a theoretical and philosophical position that allows researcher to understand and view the world through the perceptions and experiences of the participants. These experiences are then used to construct, interpret and gain understanding from the data collected. This study is positioned in the interpretive philosophy. This is because the study seeks to explore the experiences of Geography educators in attempting to uncover the reality of teaching Geography away from the previous curriculum to a new one. This is opposed to the empirical view that truth is determined through cause and effect (Creswell, 2003).

4.2.1.1 Ontological position

Since research is about generating knowledge, the researcher is concerned about the existence of this knowledge. The study of the existence of the knowledge is ontology, therefore, ontology of a research is the position and assumption taken on what constitute the nature of social reality (Creswell, 2003). This position concerns what object should be studied, what it looks like, what units make it up and how these units interact with one another (Creswell, 2003). The multiple interpretations of events lend

credence to the fact that reality is indirectly constructed based on individual interpretation and creates meaning for events.

Even though, the fact that the different interpretations given by the educators may be subjective I also have knowledge to add meaning to resolve some subjectivity. The educators' views cannot be objective or the same because they operate in different environments and do not have equal control over resources, therefore, educators' perception about the new curriculum cannot be as objective as the position held by the empirical researchers.

4.2.1.2 Epistemological positions

The generation of new knowledge such as effects of curriculum change and consequences on teaching and learning of Geography requires a standard scientific approach. Epistemology is what counts as knowledge and how this knowledge comes to people (Mack, 2010). The position of positivists and the interpretivists differs also in what counts as knowledge and advocate different methods of acquiring the knowledge. The position as held by the positivists is that knowledge exists and there are identifiable causes for curriculum change and its effect on teaching and learning of Geography is flexible, however, the point of departure is that this knowledge cannot be measured objectively using hypothesis or knowledge generated deductively from theory because it is not constant in all contexts (Cohen et al., 2007). The differences that exist among Geography educators required different strategies to gain this knowledge and is not dependent on rigid methods as advocated by the natural scientists. Smith (1993) postulates that there is no particular right or wrong path to knowledge and no special method leads to intellectual progress. A combination of both semi-structured interview guide and a structured questionnaire was utilised to acquire data. The interviewing

method ensures an adequate dialogue between the researcher and the participants and this collaboration can construct a meaningful result (Creswell, 2009).

4.2.1.3 Logical positions

One crucial part of research is drawing conclusions that will or may change situations. Conclusions can only be arrived at when people are able to understand and make meaning from arguments, insight and judgments advanced by the researcher (McGregor & Murnane, 2010).Validity and reliability are the two cases identifiable with positivist in achieving intellectual rigor, however, the interpretivists believe in trustworthiness and unbiased criteria such as credibility, transferability, dependability and conformability (McGregor & Murnane, 2010). The logical position of this study was achieved through the structured-questionnaire main tool for measuring the experiences and the perceptions of the Geography educators. The questions on the questionnaire were subjected to statistical test to ascertain its validity rather than credibility and reliability, rather than trustworthy.

Despite using the questionnaire as the main data collection tool, no hypothesis was formed and used as guide. Inductive reasoning rather than deductive rational was followed in attempting to interpret the reality from Geography educators' experiences of teaching using the new curriculum, in trying to find a common way of approaching it.

4.2.1.4 Axiological positions

Axiology concerns with what counts as fundamental values and researcher consciousness. Axiology deals with moral choices, ethics and normative judgments and

therefore, is set to explain the role of the researcher and the participants in the research process (Mack, 2010). Axiology is a branch of philosophy that studies judgements about values. It engages in assessment of the role of the researcher's own value for all stages of the research process. The concept tries to seek a clarification position, in explaining or predicting the world or in seeking to understand it. Axiology focuses on what a person values in a research.

In qualitative research these values must be known and one must report one's biases as well as the value-laden nature of the information gathered from the field. Positivists believe that research must be undertaken in a value-freeway and the researcher is independent from the data and maintains an objective stance as opposed to interpretivists who are value-bound by involving themselves in the researched phenomena and they cannot be neutral, therefore, are subjective (Creswell, 2003).

4.2.2. Methodological approach

A decision to use a particular research methodology is influenced by the ontological, epistemological, logical and axiological positions of the research. The literature identifies two main research methodologies as quantitative and qualitative (Guba & Lincoln, 1989). The quantitative research methodology arguably, has been long in existence, as a means of organising knowledge.

Trying to understand the implementation of the new curriculum through the Geography educators, the multiple realities can be established by interacting with the educators in order to obtain their views on how their interpretations of the effects of the implementation of the curriculum in the teaching and learning of Geography in the classroom. The most suitable methodology applied because of the ontological and

epistemological orientations was both quantitative and qualitative research following a survey study design.

4. 2. 2.1. Qualitative research approach

The qualitative approach to data gathering allowed the Geography educators to express their views using semi-structured interview schedules in line with the objectives of the study. Educators expressed themselves on reasons for curriculum change, their interactions and practices in the classroom and challenges faced during implementation.

Qualitative research method is closely associated with interpretivist philosophers (Thomas, 2003; Willis, 2007; Fekede, 2010). The world view from the interpretivist's standpoint is that reality is socially constructed, complex and non-consistent; this made the qualitative method a favourable approach (Thomas, 2003). Willis (2007) explains that for the complex nature of the knowledge to be understood, interpretivist used methods, such as interviews and case study methods to fully understand the context. Consistent with Willis' (2007) assertion, Creswell (2009) explains that interpretivists favour qualitative approach because they seek to establish in depth connections between humans and their environment, where their social interactions form part of them. In Creswell's (2009) view, participants in whom the knowledge resides are the best to give interpretations to the reality.

This study seeks to understand the experiences of Geography educators in teaching learning process through the implementation of new curriculum, hence, the qualitative approach is best suited. This approach is crucial to the study in that it allowed the collection of in-depth information through attentiveness and an empathetic manner. The

interview method enables researchers to explore elaborate reasons why the curriculum was changed, their experiences in using the new approaches in teaching and learning and some challenges they faced during this transition.

The qualitative approach enables the selected participants who are homogenous and one does not have to go through any rigorous statistics methods and obtain information suitable for the study. Additionally, it enables one to ask broad questions designed to explore, interpret and understand the social contexts of the study. The interviewing technique was an opportunity bringing the researcher and the participants close and interact freely in their own set ups. It also allows one to present the study report in narrative form (Marguerite, Dean & Katherine, 2006).

The underpinning truth is that the use of qualitative approach does not render the study unscientific and unempirical in nature (Johnson & Onwuegbuzie, 2004; Guba & Lincoln, 2005; Rowlands, 2005;). Qualitative research can be very scientific and empirical in nature if the methodology followed is positivistic (Guba & Lincoln, 2004). Johnson et al (2004), however, contend that when the basic assumption of the qualitative approach is no longer scientific and empirical, then qualitative is no longer positivistic.

4.2.2.2. Quantitative approach

A quantitative research approach has been a dominant method used by the positivist and considered as a scientific approach in research. In the past, the approach was associated with the natural sciences. The proponents of quantitative research believe that knowledge is derived through careful observation and experiment which may lead to gaining causal determination, prediction and generalisation of results. The procedures used during research including sample selection, instrumentation, data

collection and analysis are geared towards achieving causality, generalisability and predictability.

The choice of quantitative approach in collaboration with the qualitative approach, arises from important factors derived from the literature that need to be measured, therefore, the closed-ended questionnaire was designed to systematically measure those factors (Johnson & Onwuegbuzie, 2004). Although not necessarily to generalise the result, samples were selected using probabilistic and non- probabilistic techniques from among the population of Grade 12 Geography educators. Knowing very well this approach would yield the desired result of getting the opinion and experiences of the participants, interviews were conducted with few participants to generate knowledge and understanding.

4.3. PROCEDURE FOR DATA COLLECTION

4.3.1. Quantitative data collection

The population of this research consists of all the Grade 12 educators teaching in public high schools in the King Cetshwayo District of KwaZulu-Natal. The district consists of heterogeneous schools with unique features: urban schools, township schools and rural schools. The variety and specific features of the schools made King Cetshwayo district a study area for me. The district consists of both independent and public high schools. However, the choice is the public high schools because the independent schools run a curricular different from the CAPS.

4.3.1.1. Sampling procedure

The sampling frame for the respondents consists of all 180 public high schools offering Geography in the district. Since there are 180 public schools offering Geography, I decided to use all of them. The 180 Grade 12 educators from each of the schools form the sample since the number is manageable. The first step was to identify and locate the schools and their contacts. The district subject advisor was contacted and the lists of schools, educators and contact numbers were established. Secondly, a Grade 12 educator from each school was contacted through the cell phones to explain the main objective of the research. The calls were made during the break periods to avoid class disruptions. I then made an arrangement to meet with them during their gatherings. The opportunity came in early part of July during the moderation of their learners' Continuous Assessment mark where all Geography educators were gathered including Grade 12 educators. The gathering took place in each of the ten circuits. I met with the Grade 12 educators and the ethical consideration and the concern forms were signed. The questionnaires were distributed to them. Out of the 180 questionnaires distributed 129 were returned forming about 74% which is considered as a fair representation. .

4.3.1.2 Instrumentation

Two principal instruments were used in this study - structured questionnaire and interview schedule. The questionnaire was the main instrument, designed by the researcher and it was used to collect primary data eliciting personal information and the views of respondents on the teaching of Geography in their schools.

4.3.1.3 Questionnaires

The questionnaire was suitable for obtaining the facts as stated in the literature and from people with knowledge about specific issues. The questionnaires were administered to Geography educators seeking their opinion about the effect of curriculum change on their way of teaching and learning in Grade 12. The questionnaires were self-administered and returned to me. As it was a self-administered questionnaire, I made sure that the questions and statements were very simple and short, avoid double-barreled items and maintained the same rating scale to avoid ambiguity and confusion.

The questionnaire consisted of 46 closed-ended items. The majority of these were Likert-like items on a scale of “strongly agree” to “strongly disagree” and “very large extent” to “lesser extent”. The questionnaire was categorised into two sections: Section A elicits factual biographical information, including the gender, highest academic qualifications, subject specialisation and teaching experience of the Geography educators. The Section B elicited information based on the four objectives of the research, with the following headings: rationale for curriculum change, educators’ preparedness for implementation of new curriculum, the actual teaching and learning of Geography in the classroom, the availability of teaching materials, challenges or difficulties and interventions associated with teaching Geography.

The questions in the questionnaire were constructed with the help of my supervisor. After the initial questions were corrected by the supervisor, the instruments were then sent to ten (10) Grade 12 Geography educators in Zululand District of KwaZulu-Natal Province. The samples were tested to check for ambiguity and complexity of the instruments. A number of suggestions were offered and further corrections were made to the instruments. The actual participants were from a different District to avoid influencing the research participants by them having a prior knowledge of the instrument. The piloting was to ascertain the content validity of the questions on the

instruments (Creswell, 2009). That process went a long way to improve the questions, format, and scales (Creswell, 2009). From the target total of 180 schools offering Geography in the district, two schools were without permanent Grade 12 Geography educators and others did not return their questionnaires. The total 180 questionnaires sent out, 129 educators return their questionnaires. This formed about 74% response rate and considered to be enough for generalization (Braun and Clarke, 2006). The remaining 26% might have decided later not to continue the research which is considered as their right.

4.3.2 Qualitative data collection

The questionnaires were not the only method of data collection as it may not be able to capture all of the respondents' feelings, thinking and intentions on a particular question, therefore, an interview was used to solicit information that cannot be obtained through the questionnaires.

4.3.2.1 Sampling procedure

The participants for the interview were selected through purposive sampling techniques. Ten high schools were identified. These high schools formed part of the 51 schools that did not return their questionnaires. They also represent the socio-cultural dynamics of district and serving different geographical needs. Two formal multi-racial schools, four township schools and four rural schools formed the sample. One Grade 12 Geography educator was identified from each of the ten high schools to obtained ten participants. However, only five educators agreed and granted the interview comprising of two females and three males. The selection of the schools for participating in the interview was highly influenced by accessibility.

4.3.2.2 Instrumentation

The Interview schedule consists of few semi-structured open-ended questions. The semi-structured guides were used to avoid restriction of subjects from expressing themselves (Bogdan & Biklen, 2007). The interview was also conducted for ease of comparison of responses from the participants and to provide new ideas and issues to enrich the research (Bogdan & Biklen, 2007). The questions were centred on the four main research questions. Five participants were interviewed with each interview session lasting for not more than 45 minutes. The interviews were recorded with permission from the interviewee to address ethical issues (Creswell, 2009). The semi-structured guide was used to enable for more and deep probing of the participants so as to illicit more information. Again the semi-structured interview was used to enable data to be to be compared across the participants (Braun and Clarke, 2006; Bogdan & Biklen, 2007). This form of interview also allowed for more follow up questions for emergence of new ideas (Creswell, 2014). The five Geography educators answered questions relating to their knowledge on curriculum reform, preparations and preparedness to implement the new curriculum, their use of the curriculum in teaching and challenges faced during the implementation.

4.3.2.3. Data collection procedure

The interviews were recorded using digital voice recorder (Samsung A10 cell phone). Notes were taken during the interview to supplement the recording in order to avoid loss of data. I followed the interview guide which consists of set of questions to guide the interview. Each participant was interviewed separately and at different time. All the five participants were interviewed and the interview lasted for about 45 minutes. The participants were well informed in advance before the slated dates for the interview to

enable them prepare enough. Before the start of the interview participants were again reminded of their right to participate in the interview. Permission was sort to record the interview on tape which was granted. There were times that i switched off from the main questions to enable me probe for further clarifications (Creswell, 2014). The audio recording was very helpful because it enable me to focus on the participants to have their full attention (Braun and Clarke, 2006).

The recorded data were transferred from the voice recorder to the computer to be transcribed with the Google word processor. I transferred all the interview data into my Laptop computer and played the recordings using the google word processor to transcribe them. The details of transcript were maintained including meanings, pauses, hesitations, throat clearing and mannerisms for best analysis(Braun and Clarke, 2006).. The transcript was then cleaned to remove any unnecessary mannerism and colloquial features, however, the main ideas and understanding were maintained. The final transcribed document was presented to the interviewee for verification to avoid misrepresentation since parts of the documents were removed. No new data were added since the process was only for verification, hence, the participants gave their agreement for publication.

4.3.3. Ethical considerations

A number of steps were taken to provide an ethical standard for this research. The first step was an application to the University of Zululand Research Ethics Committee (UZREC) for clearance; second was the application to the KwaZulu-Natal Provincial Department of Basic Education (DBE) for access to site and the participants (schools) and finally, obtaining participants' consent.

The UZREC approval was granted on the basis that the research holds no risk to the participants and the environment. This means that the conduct and findings of the

research should have no foreseeable inconveniences, discomfort and controversies. This is because the participants are adults and the data were collected through surveys and interviews. In addition, the research data were not sensitive to the participants and the information gathered remains an academic work or was a way to influence change of policy. A letter of approval was issued to me granting permission to carry out the research (Appendix A).

The KwaZulu-Natal Department of Education granted permission for the researcher to have access to their schools for a two-year period, during the study. The permission was given based on application put in indicating the purpose of the study and the benefit thereof for the Department. Assessing the benefits, the Department stand to gain from the findings, approval was granted to conduct the study in the King Cetshwayo District (Appendix B).

The consent of participants is imperative in ethical issues, in empirical research. This is because the respondents are humans and had the right to say ‘no’ or ‘yes’ to getting involved in the research. A consent form was distributed to all participants indicating the purpose of the study, the procedures to be followed in collecting data and the dissemination of the information generated from the research. It was also explained that there were no material benefits to be derived and that participation is purely voluntarily and participants can withdraw from the study. (Appendix C).

4.3.4. Data analysis

Data analysis involved computation data collected to search for patterns and to establish relationships to make a sound judgment of results of the study (Creswell, 2014). Closely related operations were performed including organizing the collected data in a manner to answer the research questions. The quantitative data gathered through close-ended questionnaire was analysed statistically. Identification number was generated for each questionnaire to facilitate data capturing and organisation of the

data. The data on each questionnaire was entered into spreadsheet according to the origin. . The data was transferred from the spreadsheet and later input into the SPSS (version 21.0) programme. The programme classified, tabulated and organised the data as generated tables analyzing frequency and percentages.

The percentage is a number expressed as a fraction or part of 100. Frequency on the other hand is the number of occurrences of a repeating event. The generated tables of each response showed the number of times each item on the questionnaire occurred and expressed as percentage. The percentage (%) was the bases for my decisions in the study.

The Qualitative data generated from the field was analysed through themes. These themes were identified through identification, analysis and reporting of patterns from the field data (Braun & Clarke, 2006). This process allowed for only relevant details to be captured answering the research questions. Braun and Clarke (2006)'s six phased analysis was followed.

The first phase involved data familiarization: the transcription of audio tape offered an opportunity to read through the data to know the contents. Several readings were made to be conversant with the data. The second phase allowed the data to be defined. The data was defined according to the ideas expressed in the transcripts. The ideas were arrange using the languages and matching it with the research questions. The codes were reviewed number of times to remove the irrelevant materials (Lichtman, 2010). The third phase was to organize the codes into categories through classification. The classification allows for identification and recognition of relevant concepts in relation to the research questions (Braun & Clarke, 2006). The categories were moved round and combined to form major themes.

Phase four involved reviewing of the themes; phase five the themes were named and defined according to the research questions and in phase six reports were produced.

The themes were illustrated with quotations of the views of the participants extracted from the interview transcript. The participants' views were assigned codes: E1, E2, E3, E4 and E5 to represent Educator (E1) to Educator (E5).

4.4. CHAPTER SUMMARY

A mixed methods (quantitative and qualitative) research design was adopted in order to answer the research questions as to what are the effects of curriculum change on teaching and learning in Grade 12 Geography classroom. The research is underpinned by the interpretive paradigm so as to provide understanding and explanation of Geography educators' beliefs about implementation to meet the curriculum needs.

A total of 134 participants took part in the research. out of 134 participants, 129 responded to the questionnaire while additional 5 participants were selected to be interviewed. The questionnaires and the semi-structured interview schedules were the two data collection instruments. The questionnaires were analysed using the SPSS package version 21.0and presented as descriptive statistics in tables and percentages. The interview was recorded and transcribed and analysed qualitatively to form themes. The next chapter (Chapter 5) describes the presentation, analysis and discussion of the data collected.

CHAPTER FIVE

PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION OF THE DATA

5.1. INTRODUCTION

The previous chapter dealt with data collection strategies. The research was underpinned by interpretive research philosophy and data were collected using the mixed method approach where questionnaires were used to collect predetermined data and then followed by in-depth interviews. These were done to provide a vivid explanation to help readers to understand how the new curriculum is being implemented and its effects on teaching and learning of Geography in Grade 12 in King Cetshwayo Educational District of KwaZulu-Natal Province in South Africa. In this chapter, the result from the field are presented in order to answer the research questions related to: rational for curriculum change in South Africa; preparations made in terms of training of educators to deliver in the classroom, the actual classroom teaching in delivering the contents of the new curriculum and availability of resources for educators to deliver the curriculum contents in order to translate it into learner performance.

The result from data gathered through closed-ended questionnaires is presented as descriptive statistics using tables, frequencies and percentages. This is followed by the interview results presented verbatim. The findings are discussed with the related literature in order to draw conclusions. The results are based on the research questions of the study:

- What are the causes of changes in the Geography curriculum after the apartheid era in South Africa?
- How were Grade 12 Geography educators prepared for the implementation of the new curriculum?

- What effect does curriculum change have on Grade 12 Geography educators' teaching and current educator practice in translating the process into learners' achievement?
- What are the challenges experienced by Geography educators in implementing changes in Grade 12curriculum?

5.2. BIOGRAPHICAL INFORMATION OF RESPONDENTS

This section deals with the personal information on the respondents and determines competence level of Grade 12 Geography educators. The personal information is not the main focus of the study and therefore, their impacts were not discussed. Rather, the details were sought to express a representation of the calibre of respondents who are to effect the curriculum change. The analysis involves respondents' gender, qualifications, subject specialisation and teaching experiences.

5.2.1 Gender

Table 5.1: Participants distribution by gender

Gender	Frequency	Percentage
Male	81	62.8
Female	48	37.2
Total	129	100

Table 5.1 represents the result on respondents' gender. There were 81 men representing (63%) and 48 females making up (37%). This result suggests a wide gap between the respondents in terms of gender distribution, with more males than females. The result means that there are more males teaching Geography in Grade 12. This must be because females do not feel comfortable teaching Grade 12.The gender

representation was sought only to inform readers that the participants represent both genders.

5.2.2 Highest academic qualification

Table 5.2: Academic qualification of respondents

Qualifications	Frequency	Percentage
Secondary Teacher Diploma	29	22.5
BA/BSc with PGCE	42	32.6
BEd/ Honours	53	41.1
Master Degree	5	3.9
Doctoral Degree	0	0
Total	129	100

Table 5.2 shows the result representing respondents' highest professional qualifications, showing that all respondents are professionally qualified to teach. Respondents with direct professional degree and honours were 53 (41.1%) with 42 (32.6%) representing respondents with first degree with postgraduate certificate in education. Those with ordinary teacher diploma were 29 (22.5%) while 5 respondents possess master's degrees. The analysis shows that the educators are experienced enough to critique the curriculum implementation and have enough knowledge on topics in the curriculum that are relevant to learners.

5.2.3 Major teaching subject

Table 5.3: Respondent major teaching subject

Geography as major	Frequency	Percentage
Yes	126	97.7
No	3	2.3
Total	129	100

The results in Table 5.3 show that the majority of respondents, 126 (97.7%) have qualification in Geography education with either Geography with education, Geography only or Geography combined with other subjects, however, 3 (2.3%) were without qualification in Geography and had rather studied other subjects. The result reflects a situation in the Department of Basic Education where some educators teach subjects they have no specialisation in. The fact that an overwhelming majority (97.7%) hold Geography qualification is an indication they were qualified to understand and explain the effect of curriculum change on their classroom practices.

5.2.4 Teaching experience

Table 5.4: Teaching experiences of respondents

Experience (year)	Frequency	Percentage
0 - 10	63	48.8
11 - 20	42	32.6
21- 30	24	18.6
Total	129	100

The data in Table 5.4 show the teaching experiences of respondents. It shows that 66 (51%) of the respondents had been teaching for more than 10 years and 63 (49%) had

been teaching for less than 10 years. Based on the data shown, less than half the number of educators had served less than 10 years. The result suggests that there are many experienced Geography educators teaching in Grade 12. The high number of educators with more than 10 years teaching experience in Grade 12 shows that most respondents were in employment before the new curriculum was introduced. The differences in teaching experience will give diverse responses to enrich the discussions.

5.3. EDUCATORS' RESPONSES ON REASONS FOR CURRICULUM CHANGE

The first objective of the study deals with reasons for curriculum change. The questionnaire analysis looks at the perceptions of educators as to whether, they understood the reasons for curriculum change and hence the implementation. Participants had to tick an appropriate box on a 5-point Likert scale that reflects their knowledge regarding reasons for the curriculum change. Different understanding and views were expressed by participants as recorded in the tables, and views expressed through the interviews presented verbatim, their implications and discussions with regard to the trends in literature. Various reasons were advanced by the participants which include - relevancy to the development of learner skills, updating outmoded curriculum in terms of methods of teaching to enhance teaching and learning, to enhance the socio-economic developmental needs, addressing the social injustices of the past by colonial masters and the past apartheid regime and promotion of political ideology of the current democratic regime.

5.3.1 Curriculum change is to improve learner skills

Table 5.5: Curriculum design to improve learner skills

Responses	Frequency	Percentage
Strongly agree	60	46.5
Agree	45	34.9
Not sure	15	11.6
Disagree	1	0.7
Strongly disagree	6	4.7
Total	129	100

Table 5.5 shows the understanding and views expressed by respondents regarding the reasons for curriculum change. Sixty (46.5%) respondents strongly agree with the view that curriculum change took place to improve learner skills while 45 (34.9%) respondents agree with the statement and 15 (11.6%) of the respondents could not tell whether the new curriculum was implemented to improve learner skills. On the contrary, 6 (4.7%) strongly disagree, with only one respondent disagreeing. The result suggests that the majority of the respondents are in agreement that the curriculum was changed to enhance learner skills. This demonstrates that majority of educators have a good understanding that curriculum change was to enhance learner skills and values. Educators believe that the curriculum will go a long way to improve learner ability to seek information and draw conclusion from them. In interview an E1 stated that:

> "Learners are the one to benefit from the curriculum change since the curriculum laid an emphasis on learner skills. Learners information seeking will be enhanced through the inquiry learning approach introduced into the new curriculum."

The new curriculum is formulated to have positive effect on developing and improving learner skills through effective teaching and learning. The new curriculum is dominated

by changes involving knowledge transmission to open avenue for learners to understand the world (Young, 2009). Lambert, Solem and Tani (2015) contended that knowledge must be powerful enough to propel learners to understand events of the world.

5.3.2 Curriculum change was updated to correct the problem of implementation from the previous curriculum

Table 5.6: Curriculum updated to correct the problem from the previous curriculum

Responses	Frequency	Percentage
Strongly agree	21	16.3
Agree	81	62.8
Not sure	6	4.7
Disagree	15	11.6
Strongly disagree	6	4.7
Total	129	100

Table 5.6 demonstrates the responses of participants with 21 (16.3%) strongly agree, and 81 (62.8%) agree, while 15 (11.6%) and 6 (4.7%) disagree and strongly disagree respective, however, 6 (4.7%) of the respondents were neutral. More than half of the respondents 102 (79%) expressed the view that the curriculum change was to correct the problems identified from implementation of the previous curriculum. The result suggests that there were problems identified that impacted negatively on implementation and to realise the full benefits of the previous curriculum including teaching and learning. This implies that the current curriculum change was focused on changes that will impact positively on teaching and resulting in good performance of learners. The respondents who were undecided might not have participated in the

previous curriculum and failed to express their views on the implementation or simply do not know the reasons for the change in respect of the previous curriculum. Some educators identified some difficulties in the previous curriculum and the implementation bottlenecks. E3 expressed the following view:

> "Immediately the NCS was introduced we complained because there lots of things we didn't understand. The most difficulty I experienced was the differences in the LOs and ASs. The too much paper work was just unbearable and didn't know what to do. So I saw the new curriculum as solution to our frustrations."

Another educator (E2) explained that the:

> "The previous curriculum was much concerned about non-sexist and non- racial society that there was no emphasis on teaching and learning. However, this current CAPS came to promote teaching and learning through learner centred pedagogy."

Some educators also believed that the change might be beneficial but the practical implementation is just same as the previous ones, therefore, they do not see the reasons in changing the curriculum. E1 reported that:

> "I don't believe that the new curriculum is different from the old in terms of implementation. As educators, our complains in the previous curriculum were about too much paper work and is too much examination oriented. What did we have, the same things are being implemented."

The result suggests that the previous curriculum was problematic for educators with most of them failing to understand what exactly the curriculum was about, however, the new curriculum brings some sanity by throwing more light on what to be taught in the classroom for the benefit of learners. This finding is in agreement with Jassen (1999) who pointed out that South African post- apartheid curricula were to change direction of teaching and learning. This follows that frequent examination and revisions of the exiting curriculum should be encouraged. It is also an indication that enough information was not sought from educators who are the implementers of the curriculum. This revelation agrees with Blignaut (2017) suggestion that curriculum formulation and

implementation be considered concurrently through enough consultation with stakeholders.

5.3.3 Curriculum change is to promote educator pedagogical knowledge to promote teaching and learning

Table 5.7: Curriculum updated to enhance educator pedagogical knowledge

Responses	Frequency	Percentage
Strongly agree	21	16.3
Agree	72	55.8
Not sure	18	14
Disagree	15	11.6
Strongly disagree	3	2.3
Total	129	100

Table 5.7 shows respondents understanding regarding curriculum change and promotion of educator pedagogical knowledge. From the table, 21 (16.3%) respondents strongly agree and 72 (55.8%) agree to the statement that curriculum change promotes educator pedagogical knowledge, however, 15 (11.6%) and 3 (2.3%) disagree and strongly disagree respectively to the statement that current curriculum promotes educator pedagogy. Eighteen (14%) of the respondents were undecided. The majority of the participants agreed that the current curriculum came to enhance educators' effectiveness in handling classroom situations. This in effect will promote good classroom practices, leading to success in teaching and learning. Educators are of a firm belief that the new curriculum clearly promotes sound pedagogical approaches to teaching and learning. Educators acknowledged that methods to be applied in teaching

Geography were outlined in the curriculum. Here is a comment expressed by E5 during the interview in support of pedagogical approaches.

> "Unlike the NCS we didn't know how to approach teaching clearly, but with CAPS the guideline document spelt out clearly the use of learner-centred approach though on itself is problem."

> "The new curriculum did not only spelt out how we should teach but place more emphases on assessment. This is one most important difference between the previous curricula where assessment standard were mention but with practical way of achieving it". Remarked by E4

The finding suggests that the curriculum change is in accordance with changes to bring about change in the teaching culture and emphases are laid on learning styles and assessment. This finding also suggests that the new curriculum systematically has responded to the methodological deficiency that characterised the previous curriculum. Jassen (1999) described the previous curriculum of lacking a clear communication between educators and learners in the classroom. However, some educators appeared to be lost as to exactly what they should be doing in the classroom and may result to facilitating in the classroom instead of controlling teaching and learning (Fullan & Promfret, 1977). These educators consistently need to be educated through workshops and seminars to realise the right approaches to adopt in the classroom

5.3.4 Curriculum is updated for economic developmental needs of the country

Table 5.8: Curriculum updated for economic developmental needs

Responses	Frequency	Percentage
Strongly agree	18	14
Agree	84	65.1
Not sure	21	16.3
Disagree	3	2.3
Strongly disagree	3	2.3
Total	129	100

Table 5.8 shows that, regarding the curriculum change to meet the developmental needs of the country, 18 (14%) strongly agree, 84 (65.1%) agree, 3 (2.3%) disagree, 3 (2.3%) while quite a number 21(16.3%) of respondents were not sure whether the new curriculum was to meet the developmental needs of the nation. The responses suggest that the majority of the respondents, 102 (79%), believe that the curriculum change is to bring about developmental change to the country. The educators in the interview session stated that the curriculum is designed with topics to make learners marketable in the world of work. However, fewer respondents who disagreed are of the view that the curriculum change should not be all about economic needs. E4 expressed the view as:

> "Yes, the curriculum connects with the social and economic development needs of the country. The curriculum is in response to produce learners who can be sources for employment. Although unemployment is high in the country but I believe after Grade 12 most of learners can be employed."

> "The inclusion of economic Geography in the curriculum although not new is an indication that the government wants learners to be abreast with economic situation in the country and prepare for them.

The findings indicated that the curriculum change was driven by the global economic agenda and will make learners respond to the global competitive system. This means that the curriculum planners have established a connection between high school education and world of economy and business. This finding agrees with Carmody (2004) and Kelly (2006) who contended that the Zambians current curriculum was bored from the failure of the previous national curriculum to provide learners with the requisite skills to respond to the economic needs of the country. The finding also confirms the assertion that the globalised economies especially of the developed countries are becoming competitive and influencing the high school learners to be trained to have marketable and employable skills to respond to the neoliberal times re (Lambert, Solem & Tani, (2015). However, the few respondents who do not support the idea of the curriculum change solely be based on economic needs of the country, support the assertions of the likes of Lee & Butt (2014) and Blignaut (2017). Lee and Butt (2014) reacting to South Korean 2009 curriculum noted that tailoring curriculum on economic needs is always detrimental to teaching and learning in Geography. Blignaut (2017) also contends that curriculum change that solely aimed at preparing learners for work force in a market economy may produce non-functioning citizens who cannot appreciate their own society. A curriculum with overemphasise economic developmental needs may hamper other aims of learner development.

5.3.5 Curriculum updated for socio-cultural tenets of the changing world

Table 5.9: Curriculum updated for socio-economic tenets of changing world

Responses	Frequency	Percentage
Strongly agree	18	14
Agree	90	69.8
Not sure	15	11.6
Disagree	3	2.3
Strongly disagree	3	2.3
Total	129	100

Table 5.9 shows the respondents understanding on curriculum change as meeting the socio-economic tenets of the changing world. Of the 129 participants, 18 (14%) strongly agree, 90 (69.8%) agree, 3 (2.3%) disagree and 3 (2.3%) strongly disagreed to the statement, however, 15 (11.6%) were not sure if the change was meant to meet the socio-economic tenets of the world. The result demonstrates that, the majority of Geography educators are very aware that the curriculum is designed to meet the socio-cultural tenets of the changing world and it would be able to teach learners to achieve that. This means that the curriculum is to provide skills to empower social and cultural change.

The finding from this study agrees with earlier researches (Firth, 2016; Nzima, 2016 Blignaut, 2017). Firth (2016) contended that schools are agents of social change and must therefore, be seen as preserving traditional intellect. Nzima (2016) reacting to curriculum change in Tanzania stated that curriculum should teach learners to be civil and cultural and to reflect citizenship and dedication. Blignaut (2017) stipulated that curriculum change is a vehicle for driving social issues in our society. In reference to

South Africa, He argued that the current social ills such as racial issues, individualism confronting the nation can only be resolved by a very socially-inclined curriculum.

However, the findings contradict the earlier works of Lee and Butt (2014) who stated that over reliance on socially-influenced curriculum leads to creating healthy atmosphere for learning. They argued from a curriculum change in South Korea that was described as “creating morally-sound Koreans’’ but brought about unhealthy development of high school subjects, such as Geography where the contents were highly compromised.

5.3.6 Curriculum updated to address past social injustices

Table 5.10: Curriculum updated to address past injustices by colonial masters

Responses	Frequency	Percentage
Strongly agree	36	27.9
Agree	63	48.8
Not sure	12	9.3
Disagree	9	7
Strongly disagree	9	7
Total	129	100

As indicated in Table 5.10, 36 (27.9%) of the respondents strongly agree, 63 (48.8%) agree, 9 (7%) disagree and another 9 (7%) strongly disagree with the statement, however, 12 (9.3%) respondents were not sure if the curriculum was to address past injustices committed by the colonial masters. The result indicates that the majority, 99 (77%) of the respondents agreed that the curriculum change was to correct the

injustices perpetuated by the past colonial masters. The result suggests that there were some injustices in the past and need to be corrected. E1 had this to say:

> "The curriculum needs to bring us together; we study everything together to avoid the former divisions in our society including power relations and discriminations."

Some educators, however, indicated through the interviews that curriculum that is designed to achieve vindictiveness is likely to fail to achieve intended success. E2 explained during the interview:

> "I agreed that there were some things that were done in the past and need to be corrected. Like Blacks were not properly treated by the apartheid government, no good schools we were not taught well but we can do this without trying to pay back because we still need to live together."

The findings suggest that there had been perpetuation of injustice in the past not only in education but in the entire national life that call for redress in the country. Educators believed that the new curriculum addressed the injustices of the past by empowering learners and educators to contribute effectively to national and international issues, regardless of race, sex and colour of the skin. This finding confirmed the assertion made by Blignaut (2017) that the new South African curriculum promulgate racial equality and promote social cohesion through teaching on race and racism. The finding also agreed with aims of most international curricula. The Finish National Board of Education (2016) proclaimed that the new curriculum is aimed, among other things, to promote equity and equality among its citizens.

Some educators, however, were sceptical about the implementation and realising of social justice in the classroom. Here is an explanation given by E5:

> "Social justice, yes, but one has be very careful when teaching or talking about this. I find it difficult to teach about social justice with fear that learners of different races may understand it differently. You try teaching about issues not favourable to one race and the other think you are against them. It is really tough."

The difficulties of educators in teaching social justices have been confirmed by Lee (2013) and Blignaut (2017) in their respective findings on teaching on social injustices. Lee (2013) contended that social justice dominated most curriculum changes throughout the world, however, educators are in a dilemma as to what to teach in social justice class without hurting anyone. Blignaut (2017) asserted that because of the sensitivity of teaching social justice, proper guidelines are needed to avoid hurting anyone. The views expressed by educators showed that no proper guidelines were designed for educators to teach social justices in their classrooms.

5.3.7 Curriculum updated to promote political ideology

Table 5.11: Curriculum updated to promote political ideology

Responses	Frequency	Percentage
Strongly agree	18	14
Agree	77	59.7
Not sure	10	7.8
Disagree	24	18.5
Strongly disagree	0	0
Total	129	100

Table 5.11 shows the respondents understanding and views on whether curriculum change was meant to promote political ideology of the current ruling government. Of the total of 129 respondents, 18 (14%) strongly agree, 57 (44%) agree while 10 (23%) were not sure if the change is to promote political ideology. Twenty-four of the respondents disagree with the theme. The result shows that the majority of the respondents (75) agree that the curriculum is to promote political ideas of the ruling government. The minority view suggests that some educators are not aware of the political undertone,

however, the implication is that curriculum that solely focuses on political ideological redress is likely not to promote effective teaching and learning which may result in poor learner achievement.

In the interview, E4 expressed the view that government continues to change curriculum just to benefit them and not the nation.

> "We have not finished fully implementing the NCS and then came CAPS, the problems are still the same. So if it is not politics then what do you call it."

This finding is consistent with the findings of Jassen (2009), Yasar and Seremet (2009) and Kasuga (2019). Kasuga (2019) postulates that the curriculum changes in Kenya were fundamentally influenced by political ideologies and the implementation was met with resistance from educators. Such politically-promoted curriculum changes, because of the resistance, do not meet the intended desires and lead to poor teaching and learning. Nzima (2016) on the other hand, postulated that curriculum change that is influenced by political decisions are mostly accepted by educators and implemented to the fullest. In reference to the curriculum change immediately effected after the coming into office of the first democratically elected government of South Africa, Jassen (2009) stated that educators and opinion leaders hailed the new curriculum but did not consider its impact on teaching and learning. The curriculum was accepted just because it was changed by the majority elected black government but its implementation failed. Harley and Wedekind (2003) contended that such politically-motivated curricula changes mostly lack the pedagogical approaches and lead to poor teaching and learning. The fact remains that politics has played a role in curriculum change throughout the world, however, the modern system should be devoid of politics, it might have worked in the past but must be avoided now.

5.4. CURRICULUM CHANGE AND EDUCATOR PREPAREDNESS

Educators agreed in section 5.3.7 that the curriculum is to enhance the pedagogical knowledge of the educator. The second objective looks at the preparations made before and after curriculum change to prepare educators to achieve effective teaching and learning of Geography.

5.4.1 Educators were adequately informed about the curriculum change

Table 5.12 Educators were adequately informed about the curriculum change

Responses	Frequency	Percentage
Strongly agree	12	9.3
Agree	33	25.6
Not sure	21	16.3
Disagree	51	39.5
Strongly disagree	12	9.3
Total	129	100

Table 5.12 shows the responses of educators on the adequacy of information available to them before the curriculum change. Twelve (9.3%) of participants strongly agree, 33 (25.6%) while 21 (16.3%) were not sure, however, 51 (39.5%) participants disagree with the statement and 12 (9.3%) strongly disagreed. The majority of participants 63 (49%) who answered the question disagreed with the statement implying that educators were not informed adequately before the change. The educators who were not sure if there was adequate information on the curriculum change could be the educators who joined the service after the implementation of the new curriculum and could not tell whether

others were adequately informed. It could also be that the experienced educators who simply do not care about the curriculum change and took it as one of such changes they have been through. Some educators expressed their dissatisfaction with the process of the introduction of the new curriculum. Some educators also indicated during the interview that they were not consulted about the topics to be included in the new Geography curriculum. This finding corroborates the reports in where Geography educators were not adequately informed before the introduction of a new environmental curriculum in Lesotho (Raselimo, 2017). E5 had this to say:

> "I have been teaching for well over twenty years, we were never informed officially about any of the curricular changes.

Some educators, however, confirmed seeing the new curriculum on the internet but could not make any inputs. As vital as the new curriculum is to educators, adequate information about it through personal contacts in workshops and conferences would have been better than the internet where most educators have no access to. This development also shows that those who responded to change and provide inputs might not be practicing educators but rather professional geographers promoting their own agenda. The implementation of such curriculum may affect teaching and learning negatively. A number of researchers conceded that curriculum reform implementation start with involvement of educators in the process of formulation (Hargreaves, 2000; Pridmore, 2007; Bregman et al., 2008; Altinyelken, 2010; Agyei & Voogt, 2011; Robertson, 2012). Robertson (2012) explained that curriculum implementation will achieve positive result if educators who are professionals with the knowledge of teaching, participate adequately in the reform processes. Bregman et al (2008) supported the assertion that involving educators in curriculum planning would not only encourage and empower them but avoid top-down approach in curriculum change, which will lead to disempowerment and forcing educators not to teach the reality in the classroom.

Contrary, to these findings are the proponents that formal training received by educators is enough for them to adjust to any curriculum changes without necessarily being involved in the change (Pryor et al., 2012; Blignaut, 2017). Pryor et al (2012) postulated that receiving holistic training from initial training institutions is adequate to make educators adjust to any change with or without difficulty. Blignaut (2017) concurs that lack of alignment between school curriculum and educator training institutions poses a challenge to implementation. This implies that epistemologies of educators are significantly determined by educational training received and the institution of training since epistemologies of educator training institutions vary.

5.4.2 In-service training was provided to capacitate educators with strategies to cope with the changes

Table 5.13 In-service training were provided to capacitate educators with strategies to cope with the changes

Responses	Frequency	Percentage
Strongly agree	6	4.7
Agree	75	58.1
Not sure	12	9.3
Disagree	33	25.6
Strongly disagree	3	2.3
Total	129	100

Regarding in-service training being provided to capacitate educator with strategies to cope with the curriculum change, 6 (4.7%) of the respondents strongly agree while 75 (58.1%) just agree, whereas, 12 (9.3%) were undecided, 33 (25.6%) disagree and 3 (2.3%) strongly disagree. The result from Table 5.13 shows that the majority of

respondents 81 (62.8%) agree that they have participated in an in-service training and were capacitated in implementing the new curriculum. The respondents who disagreed were employed after the implementation of the new curriculum and did not have the chance to participate in the initial trainings. The finding indicates that although educators were not part of the formulation but were informed and trained towards the implementation. The in-service training provides Geography educators with knowledge to implement the new curriculum effectively. This was confirmed by some educators during the interview sessions that they have benefited from the INSET received. This is an explanation from E3

> "I can't remember exactly how many times we undertook the workshops but we were rained on the new CAPS before its implementation and it has helped greatly in my teaching of the subject in the classroom."

Other educators stated that they have participated in the in-service training but received nothing new to help with teaching and learning. E1 has this to say:

> "The trainings I attended were only about what was included in the new curriculum but there was nothing informing me about how to teach. Invariably the in-service training did not promote any teaching and learning but only to inform me about the changes made."

The findings from the study indicated that some educators benefitted while others did not. The finding is in support of the findings on in-service training workshop of Geography educators in implementation of Education for Sustainable Development (ESD) curriculum introduced in Lesotho. Raselimo (2017) reported that in-service training organised for educators during the implementation of ESD failed to achieve the intended desire because most educators found the training uninspiring and complained that no new information was provided. This means that in-service training did not address many issues related to the implementation of the new curriculum. It could also be that some educators have enough information about the new curriculum, therefore, did not see any importance of the training. It is conclusive to say that in-service training may not meet the need of all participants since each person attended the workshop with different desires and expectations (Massey & Pretorius, 2017; Raselimo, 2017; Wilmot, 2017).

5.4.3 Educator professional development workshops were conducted by trained experts

Table 5.14 Educator professional development workshops were conducted by training experts

Responses	Frequency	Percentage
Strongly agree	24	18.6
Agree	51	39.5
Not sure	15	11.6
Disagree	30	23.3
Strongly disagree	9	7
Total	129	100

As Table 5.14 indicates, 24 (18.6%) of the respondents strongly agree while 51 (39.5%) agree that the training workshops were conducted by experts in the field. On the other hand, 30 (23.3%) respondents disagree and 9 (7%) strongly disagree with the assertion, however, 15 (11.6%) could not tell the level of knowledge of the workshop facilitators. The analysis shows that more than half of the participants 75 (58%) were satisfied with the level of trainer expertise. The high level of trainer expertise is an indication that the majority of the respondents were satisfied with the level of knowledge acquired during the training workshop and may be prepared to implement the new curriculum. Some educators did not appreciate the level of knowledge exhibited by the trainer. This implies that the participants at the workshop were at different levels of knowledge and these levels were not considered in organising the workshop. Educators who were dissatisfied with the level of trainer's knowledge complained the training manuals were just read to them. E1stated this during the interview:

> "I was completely disappointed in the trainer, because all that took place at the workshop was to read through the training manuals without any further explanation and that made

the workshops wasting of time and boring. We should have just been given the training manuals to read all by ourselves to avoid the time wasted."

This finding is in line with other researchers who contested that in-service training and any professional developments of educators should consider the needs and desires of the participants to achieve desired results (Rogan & Grayson, 2003; Fastier, 2016). Rogan and Grayson (2003) postulated that in-service training should be conducted after considering the weaknesses and strength of participants. They explained that participants who can implement new curriculum should not be invited for in-service training because they find the training irrelevant. Fastier (2016) explained that New Zealand solved the issues of time wasting during in-service training of Geography educators by making relevant training manuals available to educators at convenient time and online. Provision of training is necessary however, the materials should be simple and self-explanatory.

5.4.4 Sufficient materials on the changes were distributed during the training workshops for educators

Table 5.15: Sufficient materials on the changes, were distributed during the training workshop for educators

Responses	Frequency	Percentage
Strongly agree	12	9.3
Agree	42	32.6
Not sure	15	11.6
Disagree	57	44.2
Strongly disagree	3	2.3
Total	129	100

The data in Table 5.15 represent responses from participants on distribution of sufficient teaching and learning materials during their training sections. Twelve (9.3%) participants strongly agree that sufficient materials were given, while 42 (32.6%) agreed. 15 (11.6%) participants were unable to decide while the remaining respondents 57 (44.2%) disagree and 3 (2.3%) strongly disagree with the statement. The majority, 60 (46%) disagree that the material distributed were sufficient. The undecided participants are likely to represent the number of educators who do not see the need to attend the initial in-service training and could not tell what really took place. Some educators were of the view that the materials distributed were enough and relevant to the training. E4 who was satisfied with the training manuals has this to say:

> "I can say that I received enough materials on the change during the training workshops. One of such materials was the curriculum and assessment policy document which prepares us as to what to teach at any time."

Other educators were, however, dissatisfied with the training manuals and complained that the manuals were just read to them instead of just serving as guide to the training.

> "E2 burst out angrily: "We could equally be given the manual to go and read instead of calling us to a meeting just to waste our time"

This implies that enough materials to provide educators extra support were supplied to participants to explain the changes and to promote efficient and smooth transition into the implementation of the new curriculum to promote teaching and learning. this finding reveals the assertion that training manuals and materials distribution to participants may ease the training of the participants (Mustafa, 2013; Fastier, 2016). Contrarily, the finds also suggest that the intended manual and materials were to be mailed to them and not call for a workshop that serves as time wasting. This supports the view of Fastier (2016) that electronic format materials are convenient way of educating or training educators to avoid unnecessary time-wasting.

5.4.5 Continuous development of educators during and after installation of the new curriculum

Table: 5.16 Educators are continuously developed to enable them to handle the challenges brought about by the changes

Responses	Frequency	Percentage
Strongly agree	15	11.6
Agree	94	72.9
Not sure	6	4.7
Disagree	11	8.5
Strongly disagree	3	2.3
Total	129	100

Table 5.16 shows the responses from participants on continuous professional development during and after the implementation of the new curriculum to address their challenges. Of the 129 participants, 15 (11.6%) strongly agree, 94 (72.9%) agree while 6 (5%) were not sure, however, 11 (8.5%) disagree while 3 (2.3%) strongly disagree with the statement. The majority of the respondents, 109 (84.5%) agreed that there had been continuous professional development even after the new curriculum was rolled out. This result implies that educators were developed professionally to handle the new curriculum. In fact, continuous professional development is important to enable educators to have the requisite skills and knowledge to teach effectively, especially, the novice educators. A number of educators revealed during the interview that they have attended content-based workshops where some difficult and new topics were dealt with. E5 expressed the view as:

> "I can confirm that I attended series of workshops organised by the department of education regarding the difficult and the new contents of the Geography curriculum. I attended one on mapwork and GIS, most difficult topics for me."

Some new entrants to the teaching profession also expressed their views about the workshop they attended. E4 explained:

> "I benefited a lot from the content workshops organised by the department. They were very useful especially as a newly trained educator there were lots of stuffs that I was not familiar with, however, the workshops strengthened me sometimes through interaction with experienced educators during the workshops."

There were other educators who indicated they have never attended workshops. They explained that the content workshops were a waste of time and did not want to take time away from their teaching to attend such workshops. E2 explained:

> "I did not attend any single workshop not because I was not aware but sometimes I feel things are just repeated. Besides that, workshops are organised during school hours and I have to waste the whole day."

This finding suggests that there is a gap between initial teacher training and actual classroom teaching. This confirms the findings of Grundnoff (2007) and Langdon (2007) that continuous professional development of educators is vital to introduce new things or for revitalisation. Langdon (2007) explained that educator initial training alone is not sufficient to complete one form of education and acquire all that is required within the time frame at the training institutions. This gap can adequately be filled through professional development initiatives (Grundnoff (2007) and Langdon (2007). There is the need for regular training sessions, especially the newly trained educators. Besides, workshops must be made compulsory for every educator and the heads of schools enforcing by making sure their educators are released to attend. The workshop facilitators should be competent enough to inspire confidence in the attendees.

5.4.6 Professional development of educators increases their knowledge in instructional practices

Table: 5.17 Educators are professionally developed to increase their knowledge in instructional practices in the new curriculum

Responses	Frequency	Percentage
Strongly agree	3	2.3
Agree	45	34.9
Not sure	3	2.3
Disagree	75	58.1
Strongly disagree	3	2.3
Total	129	100

The Table 5.17 indicates the responses of participants as to whether the professional developments programs help to increase their instructional knowledge in the classroom. Three (2.3%) of the respondents strongly agree while 45 (34.9%) just agree. On the other hand, 75 (58.1%) did not agree and 3 (2.3%) strongly disagreed with the statement. however, 3 (2.3%) were undecided. From the analysis it shows that the majority agreed that they were not professionally developed in classroom instructional issues. E3 stated that:

> "I didn't achieve much from the workshops attended because of time constraints. We didn't have time to achieve much. Worse of all, the work was conducted in hurriedly and therefore much was not covered."

The implication of this result does not necessarily mean that Geography educator's knowledge in classroom instructions is lacking rather they found the workshops not fruitful an uninspiring. This means that the professional developments were not effective in achieving educator's knowledge, skills, attitudes and belief to improve their content and pedagogical knowledge. The mixed feelings of the participants agrees with the

findings of Rogan & Grayson (2003) who were the view that the training sessions are not truly addressing the professional needs of educators and are considered by educators as irrelevant and time wasting (Wilmot & Irwin, 2016). This finding also agrees that professional development should not organised on wholesale basis but rather the needs of the individual educators be considered. Professional development in Africa has not been inspiring. Raselimo (2017) reported a similar uninspiring in-service training sessions for Geography educators during the implementation of Education for Sustainable Development Curriculum in Lesotho. The workshops and all training sessions should be done considering the needs of participating educators.

5.5. EDUCATOR KNOWLEDGE OF CURRICULUM AND CLASSROOM PRACTICES

Section 5.5 deals with educators' knowledge of the curriculum contents and how relevant it is to learners. The section also looks at the educators' knowledge of the curriculum and their implementation in the classroom to attain the relevance of the curriculum. The data presented below are the opinions taken from educator questionnaire based on their current experiences of teaching Geography in Grade 12.

5.5.1Geography educator's knowledge about contents of Geography curriculum

Table 5.18: The contents of the Grade 12 Geography are in line with main themes of Geography

Responses	Frequency	Percentage
Strongly agree	30	23.3
Agree	96	74.4
Not sure	0	0
Disagree	3	2.3
Strongly disagree	0	0
Total	129	100

In Table 5.18, participants expressed their understanding and views relating to the contents of the Grade 12 curriculum. Of the 129 participants, 30 (23.3%) strongly agree and 96 (74.4%) agree with the statement that the themes in the new curriculum was linking human and physical environments in the study of Geography, however, 3 (2.3%) disagreed. The majority of educators agreed that the topics in the new curriculum are in line with the themes of Geography. In the analysis of educator's interview, using the four themes of Geography, almost all educators expressed the themes in terms of traditional interrelationship. An explanation was given by E2:

> "Geography is the study of interrelationship between people and their environment and between nations, people and individuals on the earth surface."

Other educators (E3) also understood the themes in terms of synthesis where they include the interrelation with other disciplines:

> "Geography topics expressed understanding about people, places, cultures and physical world and interaction from other disciplines to enable to manage human life on earth."

This educator's perspective on interrelation among the themes is in line with CAPS document policy indicating that: "Geography is a science that studies physical and human processes and spatial patterns on earth in an integrated way over space and time."

There are other educators who expressed their understanding of the themes of Geography in terms of spatial distribution. They see Geography as analysis of spatial relations. The views of E4:

> "Topics in the current Geography enjoy as teaching spatial distribution, relations processes and their effects on the physical and human phenomena over the earth surface."

Very few educators could identify the theme 'place' and they perhaps have taken it as the same for spatial distribution. They could not express the theme in Geography as study that locates, describes and theories about places in order to foster sense and appreciation of place and that Geography is concerned with information and characteristics of places, regions and countries.

There is evidence that educators understood the themes in the traditional context focusing on people-places and environment. However, could not defined Geography considering the paradigmatic changes in Geography from the past. These findings confirm those of Reinfried (2004) where Geography educators recognised the traditional physical-human relationship as the main theme in Geography and failed to recognise the spatial-place relations. The themes in the curriculum policy document defining Geography had been taken, by educators, for granted. This is an indication that most educators have taken to reading pace setters which serves as work schedule at expense of CAPS document. The teaching of educators is largely influence by the meaning attached a subject and topic (Reinfried, 2004). This finding is also attributed to result of training received by educators as observed by Reinfried (2004) among trainee educators in Switzerland. The trainees were specialist educators with post-graduate

degrees, yet, they understood geographical themes only in their area of study and concentrate on teaching what they know best (Reinfried, 2004).

5.5.2 The subject content of the new curriculum is interesting to learners

Table 5.19: The themes of Geography in the new curriculum are interesting to young learners

Responses	Frequency	Percentage
Strongly agree	30	23.3
Agree	96	74.4
Not sure	0	0
Disagree	3	2.3
Strongly disagree	0	0
Total	129	100

In Table 5.19, participants expressed their understanding and views on the themes in the new curriculum. Of the 129 participants, 30 (23.3%) strongly agree and 96 (74.4%) agree with the statement that the themes in the new curriculum are interesting to young learners, however, 3 (2.3%) disagree with the statement that themes in the Geography curriculum are not interesting to young learners. The majority of the participants agreed that the themes are interesting to young learners. From the majority's perspective, it means that the themes of the new curriculum are interesting and will make teaching and learning interesting, therefore, will impact learners positively. During an interview session, E1 explained how interesting the contents are:

> "I believe that the Grade 12 Geography contents are not boring to learners as it uses to be in the past. The contents include their local environmental and sustainable issues, the economy of the country, social issues and water problem facing them."

Some educators attributed the interest of learners to the logical arrangement of the topics. The fact that what you teach is related made it very interesting and it makes teaching very lively. E1 expressed the view as:

> "Sometimes it is not just the topics that make the subject interesting but rather the approach to teaching by the educator. For me I make sure I involve my learners in the teaching process and in so doing they become interested and teaching becomes lively."

The finding indicates that some educators are doing everything possible to make teaching and learning of Geography interesting. They have also recognised that the new curriculum has provided the opportunity through continuity of topics from Grade 11 to 12. The new curriculum enable learners to enjoy the subject because it have contents that they relate to positively, while others enjoyed the lessons because the educator expressed the subject contents in manner that suited them (Vithanapathirana, 2006; Sinnema & Aitken, 2012).

5.5.3 The themes in the new curriculum relate to learners' everyday life

Table 5.20: The themes in the new curriculum relate to learner everyday life.

Responses	Frequency	Percentage
Strongly agree	21	16.3
Agree	81	62.7
Not sure	6	4.7
Disagree	15	11.6
Strongly disagree	6	4.7
Total	129	100

In Table 5.20, 21 (16.3%) participants strongly agree and 81(62.7%) agree that themes in the Geography curriculum relate to learners' everyday life, however, 15 (11.6%) disagree with 6 (4.7%) strongly disagreeing with the statement, while 6 (4.7%) were not sure. The result indicates that the majority, 102 (79%) agreed that the themes relate to learners' everyday life. Since the themes relate to learners' everyday life, this implies that teaching and learning will be interesting and will impact positively on learners, however, some educators expressed their dissatisfaction on the relevance of topics to learners' everyday lives. Some learners display apathy towards Geography as a result of lack of relevance to their lives: The thought of E4poignantly portrays this:

> "Learners do not actively participate in class work and failed to complete their home works and sometimes class works. I think is because they couldn't relate the lesson to their daily life. This affects learner's performance during end of term examination and the final examination."

Some educators also believed that they are to be blamed for learner apathy toward Geography lessons in the classroom. They expressed time constraint as factor for them failing to teach lessons relevant to learners' everyday lives:

> "As educator, I failed to relate class lessons to children everyday lives this is because when you want to teach and relate to learners everyday life you don't get to finish the syllabus." E2 explained.

The acquired knowledge of educators enable them to be determinant of effective teaching and learning and must enhance and correct any misconception of belief in their environments. This can be done through constant daily reinforcement (Lane, 2015). The finding suggests that some educators do not develop the necessary knowledge and skills with specific strategies and activities to promote learner understanding of the Geography. However, the majority of the participants have demonstrated their ability to to use their content and pedagogical knowledge to relate lessons to learner's everyday live. The finding also suggests that rote learning and educator-centred approach to teaching is taking place in some classrooms. Perhaps, the fewer educators who could not achieve this are the novice educators who are yet to acquire more teaching experience (Reitano & Harte, 2016).

5.5.4 The course contents are integrated enough to promote continuity from other grades

Table 5.21: The course contents are integrated enough to promote continuity from other grades

Responses	Frequency	Percentage
Strongly agree	15	11.6
Agree	99	76.7
Not sure	0	o
Disagree	9	7
Strongly disagree	6	4.6
Total	129	100

Table 5.21 indicates that 15 (11.6%) of the participants strongly agree while 99 (76.7%) agree that the Grade 12 course contents are integrated with other grades, however, 9 (7%) of the respondents disagree and 6 (4.6%) strongly disagree with the statement. The result indicates that the majority agreed that the course contents are well integrated to promote teaching and learning. In the interview educators explained integration as being very relevant to teaching the Grade 12 curriculum as being related to Grades 11 and 10:

> "Teaching topics such as weather and climate, one needs not waste much time teaching basics because the basics were done in Grades 10 and 11 and this make it easy to teach it. It sometimes looks like one is just revising." E1's view.

Some educators indicated that the continuation is, however, rather a daunting task since learners find it difficult to recall lessons taught a year or two earlier. E3 complained during the interview that:

> "I think some of the topics should not be studied during two separate study years at the FET. The topics should rather be taught in same year. So it may be advantageous and disadvantageous, it's dicey, Eish."

The integration of the curriculum by linking the previous and current lessons is a clear indication to promote teaching and learning. The continuity is a clear indication that learners will benefit from the lessons by building on the previous lessons in Geography from their previous classes or the immediate current class lessons. Any strong continuity allows learners to acquire skills, knowledge, understanding, values and attitudes (Beets & Le Grange, 2008). Unfortunately, some educators do not recognise continuity as an advantage and would ignore strengthening of these particular lessons, blaming their weak pedagogical knowledge level on the importance of continuity to learners understanding (Beets & Le Grange, 2008).

5. 5.5The course contents are completed in time for the final examination.

Table: 5.22 Educator is able to complete the course content in time before the final examination.

Responses	Frequency	Percentage
Strongly agree	21	16.3
Agree	31	24.1
Not sure	0	0
Disagree	57	44.2
Strongly disagree	20	15.5
Total	129	100

Table 5.22 indicates, 21 (16.3%) of the respondents strongly agreed and 31 (24.1%) agree that the annual course content is covered before the final examination while 57

(44.2%) disagreed and 20 (15.5%) strongly disagreed. The result shows that more than half, 77 (59.7%), of the respondents were not able to complete their annual lessons in time for the final examination, thus, there is no enough time to cover the lessons and this will have a negative impact on teaching and learning. A significant number of educators attributed their inability to complete the curriculum on time management. E2 explained that:

> "I must admit that significant time for teaching is lost during the year. This is because my school is in the deep rural area and I also stay in the town which is a distance far from the school and make use of public transport that arrives late at school and I also have to catch up the transport timely in order not to be left behind after school."

E4 also revealed during the interview that:

> "I am always dealing with large class size and this is making it difficult to finish the curriculum on time. This is because I tried most at times to attend to learners needs in the class and result to spending less time in delivering the curriculum."

The analysis shows that educators' inability to complete the curriculum on time was not due to the insufficient time allocation to the curriculum, rather due to educator inability to get to class on time and stay in class till end of the lesson. NEEDU (2014) asserted that significant teaching and learning time is lost because of educator absenteeism and truancy. Some rural schools have altered their time table by reducing the time allocation on the time table. Time is very important in teaching Geography, especially, tasks involving mapwork, therefore, depleting teaching and learning time, on other businesses, is rather detrimental to learner performance. Therefore, the necessary steps need to be taken to curb unnecessary lost of teaching time. I suggest staff quarters be built within the premise of the schools to accommodate educators.

5.5.6 Educator is able to promote learner-centred learning approaches and individual learning in learners

Table 5.23: Educator is able to promote individual learning in learners

Responses	Frequency	Percentage
Strongly agree	12	9.3
Agree	79	61.2
Not sure	5	3.9
Disagree	30	23.3
Strongly disagree	3	2.3
Total	129	100

Table 5.23 shows that the majority of participants, 79 (61.2%) agreed that they teach to promote individual learning while 12 (9.3%) participants strongly agreed to the statement. Large number of participants 30 (23.3%) disagreed and 3 (2.3%) strongly disagreed. The result shows that the majority of educators, 91 (70.5%) believed that they promote individual learning among learners in their classes while 33 (25.6%) thought they have not been able to promote learner-centred learning through their teachings. The data imply that if educators concentrate on individual learners, this will maximise teaching and learning. The participant educators stated the use of learner-centred pedagogical approach to implement the new Geography curriculum, however, during an interview educators expressed their various understanding of the concept: E1 comments that:

> "I stick to the prescribed learner-centred teaching approach in all my Geography lessons instead of the popular teacher-centred approach. I introduce the lesson with statement and learners take up the discussion."

There are quite a few educators who could not promote individual learning and attribute this to large classes and the numerous continuous assessments to be done during the year. In the interview, E5 stated that:

> "I would have loved to assist my learners by providing enough attention for each learner but the Geography syllabus is so wide with a lot of work. You also need to complete about seven informal and formal tasks before the end of September. As if that is enough I have over 50 learners in Grade 12. Yoooh!! It's difficult."

The comments are clear indication that educators do not understand the learner-centred approach. The explanation shows that educators understood learner-centred to mean paying attention to individual learners. Educators did not consider the holistic classroom engagement including their role in the teaching and learning process as part of the concept. Educators are to interpret and influence curriculum change through their epistemological orientations (Beets & Le Grange, 2008; Blignaut, 2008; Alexandre, 2009). These epistemological orientations are based on the assumption that educators should be well-equipped with content and pedagogical knowledge to produce quality result among learners, through quality teaching and learning (Blignaut, 2008). The fact that some educators failed to promote the concept of learner-centred pedagogy is an indication that true teaching and learning is not taking place as prescribed by the new curriculum and may impact negatively on learner performance.

5.5.7 Educators promote co-operative learning among learners

Table 5.24: Educators are able to promote co-operative leaning among learners.

Responses	Frequency	Percentage
Very large extent	9	7%
Large extent	96	74.4
Lesser extent	9	7
Not at all	15	11.6
Total	129	100

From Table 5.24it is noted that, 9 (7%) respondents promote co-operative learning to very large extent and 96 (74.4%) promote co-operative learning among learners to large extent. The rest of the respondents 9 (7%) promote co-operate learning to a lesser extent while 15 (11.6%) did not engage their learners in co-operative teaching and learning. The result shows that the majority of the educators, 114 (88.3%), have contributed to co-operative learning among learners. Educators are promoting cooperative learning to maximise teaching through interdependent group interaction among peers (Hennessey & Dionigi, 2013; Johnson, Johnson & Smith, 2013). This method also promotes a greater academic success because the groups are made up of different genders, social and academic backgrounds. This is reaction of an E1 who constantly uses cooperative teaching:

> "I use the group work to encourage my learners to help one another through discussion among themselves. Yeah, it enables them to freely express themselves regardless of their back ground as long as they are among their peers."

> "I have an existing group made up of weak and strong learners in the class to facilitate the process. I then provide them the topic for discussion. I then move round the groups to see if each member is actively involved to encourage learners to work together. I then ask them to present their answer." E3 gave his experience.

> “I only group my learners whenever, there is insufficient materials to be shared among them, not necessary as a tool for teaching. I know it will enhance the teaching and learning but most at times time is a factor.”E4 explained during the interview

The finding also indicates that some educators are not comfortable to engage their learners in vigorous group discussion for fear of losing potential teaching time. Such, educators however, have deprived their learners of engaging their peers, expressing themselves and taking control over the learning process. Perhaps, such educators lack the skills of organising group work and deprive learners the opportunities to advance their learning through engagement of their peers.

5.5.8 Educators promoting inquiry-based learning

Table 5.25: Distribution of respondents according to the use ofInquiry-based learning methods

Responses	Frequency	Percentage
Very large extend	12	9.3
Large extent	78	60.5
Lesser extent	6	4.7
Not at all	33	25.6
Total	129	100

The Table 5.25 shows the responses of participants on the extent to which they use the enquiry-teaching approach during lessons in the classroom. Of the total number of participants, 12 (9.3%) to a very large extent and 78 representing (60.5%) were largely positive to the statement. Thirty-three (25.6%) do not use at all and 6 (4.7%) to a lesser extent. The result shows that the majority of Geography educators have been creating environment for learners to participate in scientific research to acquire theoretical

content thinking skills and process skills. Learners are also able to collect, organise, process and analyse data. Some educators explained that their schools were well-equipped with structures and facilities to undertake the inquiry. E1 has this to say:

> "I must say that my school is blessed with computers and electronic white board. There is an access to internet and that bring learners close to current news in the country and international. This, I can say that brought learners to the realities of the subject and open them to lot of information."

Educator (E4) explained during the interview:

> "Unfortunately, some of these methods can't be implemented by some of us simply because the facilities and resources are not available in my school. For example if I gave my learners something to research on they don't have the resources and facilities both at the school and the community."

Educators could not indicate fully their understanding and the best approach to achieving inquiry teaching and learning techniques, rather, they reduced it to research and assignments. Educators confused research and assignment as the only means of processing information. This finding does not follow the aim of CAPS curriculum that allows learners to process information in very systemic way (DBE, 2011). This result is not surprising as some educators are not able to apply inquiry method to promote teaching and learning in Geography. Catling and Willy (2010) contended that some Geography educators do not understand the inquiry method and the skills to be use and therefore cannot apply it in their classrooms. Olusegun (2015), however, argued that lack of teaching and learning support materials are the main factors preventing educators from applying inquiry method as a tool for effective teaching and learning.

5.5.9 Educator promoting the use of project work

Table 5.26: Respondents distribution according to the use of project work

Responses	Frequency	Percentage
Very large extent	6	4.7
Large extent	75	58.1
Lesser extent	40	31
Not at all	8	6.2
Total	129	100

Table 5.26 reflects the participants' ability to teach Geography through project work to create opportunity for learners to think in Geography. Of the total number of respondents, 6 4.7%) indicated to a very large extent and 75 (58.1%) large extent to the statement of creating opportunity for learners, however, 40 (31%) and 8 (6.2%) use it to small extent and not at all, respectively. A large number of educators (81) created space for learners to practicalise concepts. The educators who engaged learners in project activities are from well-resourced schools and can afford apparatus to undertake such project, however, there are other educators who could not afford learners this opportunity. E3explained that:

> "I don't have the resources to embark on project work. My school has no Geography room and equipments where such project can take place. I tried to draw such project to be developed on the chalk board for the learners."

> "I find it difficult to teach topics involving project because resources are not available for us. Most of the exercises involving projects were rather doing activities."An explanation given by E4 during the interview.

It is evident from the interview that some learners are privilege to undertake practical hands-on projects but other learners were denied much practical activities. Reinfried

(2006) explains that Geography is one social subject that provides the best opportunities for the use of projects, but a large amount of time is needed to prepare project work and also lack of teaching and learning materials and infrastructure also contributed largely to the inability of educators to engage learners in project activities.

5.5.10 Educator use of discussion teaching method

Table 5.27: Respondents distribution on the use of discussion teaching method

Responses	Frequency	Percentage
Very large extent	27	20.9
Large extent	84	65.1
Lesser extent	18	14
Not all	0	0
Total	129	100

Table 5.27 shows that 27 (20.9%) respondents use discussion method to a very large extent and 84 (65.1%) of the participants use discussion to a large extent; 18 (14%) felt that they have use discussion as teaching at a small extent. This result indicated that most educators prefer to interact with learners through discussion. Some educators through the interview explained the various ways they achieve this in the classroom. E1 stated that:

> "I use the question and answer techniques because it allows learners to participate actively in the class. I start the lesson with questions that relate to their life and link to the topic by so doing I link their previous knowledge to the lesson. I believe is one teaching method that achieve maximum success in the class and makes more learners to participate in the lesson."

> "I think learners tend to understand the lesson and don't easily forget. The fact that learners can retain the information because is coming from them, it makes them to produce the information during examination and result in high pass rate."Response received from E2.

Other educators expressed their frustration over the use of discussion method in Geography class. E3 explained:

> "One major problem I encounter using discussion method is that it is time consuming. Sometimes, I will ask question and learners are not prepare to give answer, insisting on learners providing response ended up wasting the teaching knowing that our curriculum is time bound."

The finding indicated that some Geography educators engaged in lecture methods to enable them cover the curriculum before examination instead of teaching to enhance learner understanding of the lesson. A well-planned and systematic use of discussion method in the classroom can achieve high result (Olusegun, 2006).

5.5.11 Educators provide opportunity for fieldwork

Table 5.28: Educator provides opportunity for project work involving field trips

Responses	Frequency	Percentage
Very large extent	3	2.3
Large extent	78	60.5
Small extent	12	9.3
Not at all	36	27.9
Total	129	100

Table 5.28 indicated that 3 (2.3%) used field trips to a very large extent and 78 (60.5%) respondents expressed their ability to introduce their learners to fieldwork to large

extent. Meanwhile, a significant number, 36 (27.9%) in the sample did not use fieldwork during the introduction of the new curriculum 12 (9.3%) indicated that they used it but much often. The majority of the Geography educators have subjected their learners to fieldtrips in ordert0 have practical first-hand information to consolidate their theoretical lessons in the classroom. However, a significant number of educators did not subject their learners to fieldtrips. Further interviews revealed number of reasons for such results.E1 explained that:

> "I am bless because my school is located very close to the Richard's bay industrial hub and therefore give my learners assignment to go to the companies to find information. And learners always come back with the right information. Some topics such as the strategies for industrial development and informal economies provide opportunities to visit the industries for first hand."

E4 has this to say:

> "I know the importance of field trip and would like to use it often in enhancing my teaching in the classroom but the problem is money. The trip involves travelling but there is no money. The school doesn't have fund and the parents of the learners are very poor cannot provide money for the trip".

Educators appreciate fieldwork as an important teaching technique in enhancing teaching and learning in a very practical manner especially in Geography but were constraint in applying it. Schools situated in urban areas have the advantage of exposing their learners to fieldtrips. Unfortunately, their rural counterparts are disadvantaged because of limited factors as funding and large class size could not adhere to the tenet of the new curriculum. This finding is consistent with the works of Olusengu (2006) and Oladejime (2006) who found out that field trips were being used more in urban schools than rural schools and cited lack of fund to be limiting factor preventing high school Geography educators from embarking on fieldtrips. One thing that was very clear from the finding is that educators did not consider their local environment as important enough to be utilised for such trips (Oladejime, 2006). What the finding simply means is that some educators are not adhering to the fieldtrip as a teaching method prescribed by the new curriculum. Non adherence to fieldtrips denies

learners opportunities of interacting between physical, mental and emotional experiences as presented by the fieldtrips and may not only to poor performance but also deprived learners of critical thinking (Oladejime, 2011).

5.5.12 Educators' language of instruction in the classroom

Table 5.29: Educator teaches in the official language of instruction and learning

Responses	Frequency	Percentage
Very large extent	15	11.6
Large extent	84	65.1
Lesser extent	24	18.6
Not at all	6	4.7
Total	129	100

In Table 5.29, the respondents expressed the frequency of using English and Afrikaans as official medium of instruction in the classroom. Fifteen (11.6%) and 84 (65.1%) of the respondents agreed to have used English and Afrikaans languages to a very large extent and large extent respectively, however, 24 (18.6%) used them to a lesser extent while 6 (4.7%) did not use it all. The adherence to the use of language of instruction in the classroom is encouraged. It means most educators use the official languages during their lessons. There were a few educators who resort to code switching. Educators who frequently use the official language are those in the urban areas while most rural schools used both the English language and local language (isiZulu). E4 explained:

> "It is not my intention to teach in the local language because I do know we are not supposed to teach in isiZulu. My learners hardly speak English and therefore teaching in English without explanation in local language will do me and the learners no good."

The literature has identified English language as medium for learning Geography in every classroom and forms a major part in preparation and delivery of lessons (Butt, 2003). Language in the Geography classroom communicates what has been learnt and to help learners to understand and perform activities such class works and final examinations (Slater, 1989). The use of code switching as practiced by some educators may not be helpful to the learners since English is the language of examination and is the language across the curriculum. These learners not being taught in the medium of instruction are likely not to perform well in their final examination. Sticking to the language of instruction as prescribed is likely to enhance the development and understanding of geographical concepts (Butt, 2003) and to produce better results.

5.6. CURRICULUM CHANGE AND LEARNER ACHIEVEMENT

The curriculum change is aimed at leaving learners better educated citizen. This section deals with the achievements of learners during the implementation of the new curriculum.

5.6.1The curriculum change influences learner performance in Geography positively

Table 5.30: The curriculum change influences learner performance in Geography positively

Responses	Frequency	Percentage
Very large extent	9	7
Large extent	72	55.8
lesser extent	45	35.13
Not at all	3	2.3
Total	129	100

The influence of curriculum change on learner performance was expressed in diverse ways. From Table 5.30, those who agreed to a very large and large extent that the new curriculum influenced learner performance positively constituted 9 (7%) and 72 (55.8%) respectively, while 45 (35.13%) agreed it is to a lesser extent and 3 (2.3%) believe that the new curriculum does not influence learner performance positively. The majority of educators agreed that the new curriculum influenced learner performance positively. The result suggests that the new curriculum is designed to produce responsible learners to solve the problems of their environment through critical thinking. The following are the responses of E4 when interviewed:

> "Geography generally is a subject that allows learners to understand their environment and to address the problems in their environment and in the country as whole."
>
> "The curriculum is to create knowledge and therefore, I have no doubt that the new curriculum promotes analytical reasoning through inquiry learning that makes them highly analytical and becomes critical thinkers." E3 explained.
>
> "I think so. The Geography curriculum established a link between learners' everyday challenges to the classroom lessons. This enables learners to link the critical learning skills in the classroom in number of ways especially the immediate environment. Most of the discussions in the Grade 12 syllabus relates to societal challenges including social and economics."E2 explained.

A significant number of respondents did not believe that learners are trained to solve problems either in their environment or elsewhere. They believed that the curriculum is more examination-oriented rather than training the learners for their environment. E1 has this to say:

> "Yes. The curriculum is designed to create opportunity for learners to be problem solvers through critical thinking but I bet to say that the reality is negative. All we do during teaching is to make sure learners are prepared enough to pass their examination. None care about your attempts to make your learners to be useful to their society all they care about is your examination results."

Various studies both, national and international indicated the relevance of Geography to society and the learners. Lane (2015) highlighted that learners must be connected to the reality of their societies through their classroom activities; once they are disconnected from their reality, they tend to be dissatisfied and. It is an accepted fact that Geography is to empower learners and prepare them to be good citizens and to take up the development of their societies. Alexander (2009) contends that curriculum becomes more useful and meaningful when educators and learners have transformed their abilities through classroom activities. The current content-based learning and educational topics adopted by educators are not provoking learners to recognise the importance of Geography, let alone understanding their socio-economic environments. From the findings one concludes that learners' lifelong learning is not given any prominence in the classroom. The outcomes-based curriculum has turned into content-driven curriculum and therefore learning cannot be successful (Botha, 2002).

5.7 CURRICULUM CHANGE AND PROVISION OF INFRASTRUCTURE AND RESOURCES

This section looks at the infrastructure and support needs of schools for smooth implementation of the new curriculum. The section looked at the physical infrastructure such as school building and a Geography laboratory. Availability of teaching and learning materials such as relevant textbooks, electronic equipment and teaching and learning instruments were also investigated.

5.7.1 Physical infrastructure in the schools

Table 5.31: Availability of Geography teaching and learning centres

Responses	Frequency	Percentage
Yes	24	18.6
No	105	81.4
Total	129	100

From table 5.31 a large number of respondents 105 (81.4%) indicated that they have no Geography centres with teaching and learning material. Very few respondents, 24 (18.6%) noted that they have Geography centres from where they teach their learners. This result indicates that most schools do not have a place where geographical basic teaching aids, such as globes and wall charts are stored. A well-designed Geography teaching centre promotes learning development among learners. This is the assertion of E1:

> "I have large Geography centre well equipped and capable of accommodating over fifty learners at a time. This gives as a lot of space as an educator to manoeuvre and attend to every learner".

This finding suggests that in well-designed Geography centres, learners become free and focussed and there is always an atmosphere to manoeuvre and promote orderliness, however, the absence of such infrastructure and facilities encourages overcrowding resulting in disorder and misbehaviour in the classroom. E5 indicated that:

> "My Geography lessons are held in a congested classroom where all learners cannot be attended to during practical lessons".

The essence of developing a new curriculum is to translate it into the classroom to achieve effective teaching and learning. Therefore, curriculum implementation should be followed by provision of infrastructure facilities such as classrooms, libraries, resources, laboratories and desks. The availability of infrastructure promotes smooth

implementation of curriculum (Blignaut, 2009). However, the finding shows that the vast majority of schools are without appropriate infrastructure especially classrooms and Geography centres. The unavailability of infrastructure in schools in the study area supports the earlier finds that school infrastructure in Sub-Sahara Africa is non-existent (Kelly, 1996; Rogan & Grayson, 2003; Blignaut, 2009). The findings suggest that infrastructure in South African has not seen any significant improvement and that only few former Model C schools have appropriate infrastructure (Rogan & Grayson, 2003). The implication of this find is that schools are not promoting effective teaching and learning since classrooms are congested.

5.7.2 Availability of relevant text books for teaching and learning

Table 5.32: Availability of relevant text books for teaching and learning

Responses	Frequency	Percentage
Yes	90	69.8
No	39	30.2
Total	129	100

Table 5.32 indicates that most respondents, 90 (69.8%) have the relevant text books in their schools to enhance teaching and learning. The remaining respondents, 39 (30.2%), stated that they do not have the relevant text books. The fact that 39 schools are without relevant textbooks is an indication that there are schools in South Africa without relevant textbooks and this affects teaching and learning in those schools. It is rather worrisome that there are still schools without the relevant text books, although, this study reveals what other researchers have found in their studies with regard to text book supply immediately and after curriculum implementation to enhance teaching and learning. The findings of Manik & Malahlela (2018) and Mtshali (2013) revealed that most schools in South Africa have limited text books. Similar findings were discovered

in Turkey (Mustafa, 2013) where schools start implementation of a new Geography curriculum without relevant text books. Implementing new curriculum without relevant textbooks may disadvantaged teaching and learning since educators may be forced to teach with the old textbooks with old ideas (Mustafa, 2013).

Apart from the shortage of text books, most educators lamented about the poor quality content. In the interviews some educators stated that there is no single text book with complete curriculum content. E2 explained:

> "You have to put a lot of books together to get scanty information for learners. It is worst when you give learners home work to do. They cannot write comprehensively because the text books have scanty information."

The findings from the interview show that even the available textbooks do not have the relevant information to increase learners' knowledge in and out of the classroom. This confirms the earlier assertion that most Geography textbooks in South Africa have inadequate information. Manik and Malahlela (2018) and Wilmot and Irwin (2016) and expressed their reservations about Geography text books in South Africa claiming that most textbooks do not meet the required standard and have very scanty information. This situation will not promote effective teaching and learning resulting in limited formal geographical knowledge offered to learners (Ngubane, 2009).

E4 also complained about lack of comprehensive assessment tasks in the text books during the interview session:

> "I can't get standard assessment task for my learners and I ended up giving them just very few tasks for class work and home work. I cannot be blamed even though I know it affects learners."

Assessment is one way of consolidating learning among learners. This finding shows that the limited information delivered by the textbooks means that learners are also deprived of assessments at the end of the lesson. This finding was highlighted by Ngubane (2009) who found Geography textbooks in high schools in South Africa to lack

assessment tasks and sometimes some mismatch of texts and illustrations. The effect of this is that learners have few tasks to practice in class and after school. The less the learners practice the less they acquired and are ill-prepared for their final examination.

5.7.3 Availability of instructional materials.

Table 5.33: Availability of computers for studying GIS

Responses	Frequency	Percentage
Yes	13	10.1
No	114	89.9
Total	129	100

From Table 5.33 very few schools, 13 (10.1%), have computers while the majority of the schools 114 (89.9%) do not have computers. This shows that more than half of the schools in the District do not have computers. It is not surprising that earlier reports suggest that more than half of schools in South Africa do not have computers (NEIMS, 2016). The absence of computers in most schools is an indication that teaching and learning of the newly-introduced GIS is hampered. GIS was introduced in the new curriculum to enhance teaching of mapwork by moving away from the traditional paper map to technological mapwork (Fleischmann & van der Westhuizen, 2017). Educators may not be able to teach GIS effectively without the computers and the needed software and learners may be learning GIS without hands-on activities. Learners may find such lessons very boring and uninspiring and may lose interest, resulting in poor performance.

Educators reacted to the absence of computers and software in their schools and how it impact on teaching and learning of GIS.

"The only computer we have is in the principal office and cannot be used because it is only one. I therefore, teach GIS as it is in the textbook".E5 lamented.

"I remember some years back I used to take my learners to computer centre in town where they are assisted but these day I don't do that because the schools doesn't have fund for that" was a response from E4.

The result is an indication that a large number of our learners are not benefiting from the analysis of digital images and location of geographical phenomena using computers (Paling & Krause, 2015), although, the few schools with computers and software will benefit since the use of technology in Geography lessons opens learners to better understanding of Geography concepts (Van de Schee, 2003; Lim & Lee, 2004)

5.7.4 Availability of sufficient learning and teaching support materials

Table 5.34: Availability of sufficient topographical and orthographic photo

Responses	Frequency	Percentage
Yes	78	60.5
No	51	39.5
Total	129	100

In Table 5.34, the respondents reported on the availability and sufficiency of maps in their schools. The majority, 78 (60.5%) of respondents, have sufficient topographical and orthographical maps. The remaining 51 (39.5%) indicate availability but perhaps not sufficiency. Maps are basic resources for teaching and learning in Geography; the fact that some schools do not have them is a cause for concern and this may impact negatively on teaching and learning. The voice of E3 on the issue:

"You won't believe it is very difficult to get topographical and orthographical map. There are no charts, no wall maps and even common globes in the school."

The result suggests that there are schools which are teaching Geography without much mapwork and therefore, not promoting the teaching of Geography effectively. This result is consistent with Fisher's (1998) claims that instructional facilities such as charts, drawing instruments, topographical and orthographical are lacking in schools and are depriving effective teaching and learning. It follows that schools without these facilities are likely to have problem with teaching and learning and this will impact on learner performance.

5.8. CHAPTER SUMMARY

The biographical data reveals that all the participants are qualified Geography educators except three of them who possess qualification in other subjects instead of Geography. The educator academic qualification shows that all participants are professionally qualified however, quite a number of educators still hold teaching diploma. Most participants have long service in the profession. The findings of the research revealed that the educators have a high knowledge of the reasons for the curriculum change and agreed that the change was vital for the teaching and learning of Geography. Educators have experienced some challenges which inhibited the positive realisation of the objectives of the Geography and smooth implementation of the curriculum. Respondents identified lack of infrastructure development in their schools as a factor impacting on smooth and effective teaching and learning in the Geography curriculum. The prescribed learner-centred pedagogical approaches for teaching and learning become irrelevant when educators relied on content-driven approach. Another revelation from the finding was that educators were challenged to relate the Grade 12 Geography curriculum to everyday experiences of learners. This revealed that instead of lifelong curriculum it had been reduced to examination-oriented. One of the challenges was that educators had to race with time to complete the curriculum in time for learners to take their final examinations. The next Chapter gives a brief summary of the entire research, conclusions reached and recommendations. The conclusion deals

with the main outcomes of the research while the recommendation stressed the point on the implications of the research on policy formulation and academia.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1. INTRODUCTION

In the previous chapter, analysis, interpretation and discussion of data collected from educators was done. I discussed in detail the reasons for frequent curriculum change and some implementation problems. The pedagogical approaches and teaching strategies formed part of the discussion in order to find out how the new curriculum is being implemented in the classroom to achieve the positive effects of the change. Chapter six is the concluding part of this study in which a summary of the study is provided by outlining the importance of the study, implication on policy, practices and research. The chapter is divided into two main sections. The first section summarises the entire research, the second and the third sections take a look at the conclusion and recommendations, respectively.

6.2. SUMMARY

Much has been said about the deterioration of educational level in the country. This is reflected in the low pass rate in the final National Senior Certificate examination. The continuous low pass rate will have negative impact on socio-economic and political impact of the country. The general low performance in the final examination is visible also with Geography. The indication is that Geography is not being given the classroom attention it deserves, therefore, the teaching of Geography is incapable of imparting

knowledge, skills, attitudes and values needed to protect the human environment and places.

The concept of Geography has evolved over centuries but one thing is certain, that the subject matter remains the earth and the earth surface. The subject has moved away from mapping location of places to more purposes for it as an academic Geography. Academic Geography interprets Geography in terms of four units: the spatial traditions, area traditions, man-land traditions and earth science traditions (Pattison, 1964; Robinson, 1979). The four traditions further gave rise to two main divisions as Physical and Human Geography. Modern Geography is seen as the bridge between the two divisions. Geography is, therefore, seen as integrated discipline that examines both physical and human process over space and time (CAPS, 2011).

The knowledge base of the discipline has also evolved over time to create space for growth and development. The evolution was necessary in establishing the theoretical bases, beliefs, values and attitudes that are shared by members of a community and a scope to be included in curricula (Kuhn, 1970). The Geography curricula all over the world introduce specialised topics to be studied and the approaches to teaching and learning them.

This research is positioned within geographical education, especially, curriculum changes and implementations. This study is underpinned by the curricula reforms in post-apartheid South Africa. Reinfried (2006) postulates that curricula reforms and implementation have a limited impact on the educator' classroom practice as a result the differences between intended and enacted curriculum. A number of factors have been identified to be responsible for the wide gap between formulation and implementation, including the role played by educators in the process.

The post-apartheid South Africa witnessed implementation of Curriculum 2005 (1997), National Curriculum Statement (2000), Revised National curriculum Statement (2008) and Curriculum Assessment Policy Statement (2012) to change the socio-cultural, political and economic trajectory of the country. It is, therefore, of great importance to find out how these changes have been implemented within the classroom to achieve its intended result. To investigate the effect curriculum change has on classroom practices, the following main question was formulated: What is the effect of curriculum change on teaching and learning of Geography in Grade 12 classrooms?

The research question was answered using the quantitative and qualitative research approaches, within the pragmatist paradigm. Data was collected from participants through a survey. In all 129 Grade 12 Geography educators were sampled through purposeful technique and a non-probabilistic sampling approach to select the participants. The participants were selected from among Grade 12 Geography educators from public high schools in the District. The selection of participants was done to represent both genders. Apart from 3 educators who do not have Geography as major teaching subject, the rest had specialised in Geography and all professional educators. The majority of the participants have over 10 years teaching experience.

The research was conducted in mixed-method tradition therefore field data were collected using two instruments. The 129 participants were given questionnaires to respond to while data was also collected from five other participants using a semi-structured interview guide. The interview was conducted to corroborate the responses from the questionnaires. The quantitative data was analysed using the SPSS package to generate tables. The interviews were recorded and then transcribed verbatim. The research findings were presented as percentages corroborated by specific quote from the participants as extracted from the transcript.

The findings show that the new curriculum was forced on Geography educators and are implementing it for compliance sake. The participants also have limited knowledge of what the main objectives for curriculum changes were and have failed in their attempts to impact this positively to learners. The majority of participants disapproved of the top-bottom approach to curriculum formulation and implementation, however, some participants were satisfied with the trainings received during their orientation workshops. Educators were able to identify with the main themes of the new curriculum but could not acknowledge their integrated nature. This may result in most participants failing to promote integrated teaching approach prescribed by the curriculum documents. The major factors hindering the implementation of the new curriculum were lack of infrastructure and resources in the schools.

6.3. CONCLUSIONS AND RECOMMENDATIONS

The research investigated the effect of curriculum change on teaching and learning of Geography in high schools in (Grade 12) in South Africa. The main aim of the research was to identify the implementation of the new Geography curriculum and barriers encountered by educators. Conclusions have been drawn based on the research questions that guided data collection process and the entire research work. These questions are:

- What are the reasons that cause changes in the Geography curriculum, especially, immediately after apartheid?
- What effect do curriculum changes in Geography have on educators teaching in Grade 12 classroom?
- How does Geography teaching and current educator practice translate into learner's achievement?
- What are the challenges experienced by Geography educators in implementing curriculum change in Grade 12 classrooms?

6.3.1. Conclusions

The conclusion is drawn based on each of the research questions which are treated as separate sections.

6.3.1.1. What are the reasons that cause changes in the National curriculum immediately after apartheid?

The curriculum change was entirely to change the direction of education in the country. The change took place within the overarching political shift from apartheid to post-apartheid. The previous curriculum was perceived to have perpetuated social segregation and economic deprivation of the marginalised Africans. The curriculum was a shift to enable equal opportunities to train learners not only for higher education but subject to the economic and social needs of the country. Furthermore, varied opportunities were created the broader and more differentiated curriculum to study without limitations.

In addition to cater for the needs of learners the challenge of teaching has also been addressed by providing guidance that promoted pedagogical strategies that is believe to raise the standard of teaching and learning through the prescribed teaching methods and was the broader strategy to reform the classroom teaching from the heavily educator centred approach to learner centred approach. The teaching approach is to give all learners equal opportunity irrespective of their social and economic background and prepare them for higher education. The teaching approach increases learner knowledge, skills, attitude and values to appreciate socio-cultural, political and economic changes not only in their immediate environment but on the global landscape.

6.3.1.2. How were educators prepared for the change in teaching of Geography in Grade 12 classroom?

The formation of the new curriculum has been described as typical top-down approach. This is because of heavily exclusion of educators as important stakeholders from the formulation of the new curriculum. Much information was not communicated to educators before the formulation, however, in-service training and professional development workshops were organised for the smooth implementation of the curriculum. Majority of the participants were content with the professional development and expressed their satisfaction about the participation and the facilitation. Enough materials were given to participant to enhance the development of the implementation. Fewer educators did express their displeasure about the conduct of the in-service training. They complained about the mode of delivering the content-oriented training workshop. Such approach to training did not promote the intended desire to achieve effective teaching and learning. This has made educators to rely heavily on their previous knowledge to implement the new curriculum. The participants who found the training uninspiring previewed information on the curriculum change from other sources rather than from the workshops.

6.3.1.3. How does Geography teaching and current educator practice translate into learner's achievement?

Geography educators were knowledgeable about the contents of the new curriculum and agreed that topics are in line with the main themes of Geography. Educators applaud the new curriculum for content and continuity. The content of the Geography curriculum has been described as progressive and will promote learner knowledge. Majority of educators their delight about the content and expressed their satisfaction about inclusion of environmental sustainability and socio-cultural issues to improve

social cohesion. However, the educators' view of the subject Geography is still derived from the traditional definition of man-land relationship leaving the pragmatic nature of Geography. Only very few educators could identify the theme of Geography as embodiment of people, places, cultures and physical world and interactions.

The fact that some educators viewed Geography in the light of the traditional man-land relation and not the integrated nature is likely to promote educator-learner pedagogical approach. While, the new Geography curriculum promotes an integrated approach to the teaching and learning educators with difficulties of approaching the subject in a pragmatic manner are likely to be using their old way teaching through presentation of facts as done in the past.

Varied teaching methods and strategies were employed by educators in their classrooms during Geography lessons to achieve learner-centred approach to teaching and learning. Nevertheless, number of barriers prevented most educators from using the appropriate strategies in their classrooms. Well resourced schools and urban based schools were able to undertake fieldtrips to enhance learner-centred approach to teaching and learning while their counterpart in the rural areas are constraint by large class sizes and funding. Some educators also compete with time to finish the curriculum on time and saw fieldtrips as waste of time. The large class sizes also promote the transmission teaching approach with educators dominating the lessons instead of the learners.

In addition to the teaching strategies adopted, majority of the educators use the Afrikaans and English which are the official languages for instruction. Some educators were not adhering to the use of the official languages and therefore resorting to code switching.

6.3.1.4 Challenges to implementing new curriculum

The new curriculum provides opportunities for Geography educators for successful implementation of the curriculum however, number of challenges were numerated to have prevented successful implementation. The first of such challenges is the infrastructure gap that existed in schools. Most educators indicated that they do not have basic infrastructure for teaching and learning. The basic infrastructure such as learning centres, classrooms, libraries, laboratories and furniture. Most of these schools without the basic infrastructure were in townships and rural schools.

Secondly, most participants expressed the unavailability of some basic resources such as computers, maps and charts which are very vital for teaching Geography. The absence of computers in most schools is an indication that teaching and learning of GIS is hampered. Participants also expressed unavailability of prescribed textbooks. The absence of maps and drawing instruments also deprives learners from undertaking practical mapwork in the classroom.

Additionally, prescribed Geography textbooks in schools were inadequate. This is because the available textbooks in the schools did not have adequate information and hampers the effective teaching and learning of Geography.

The reality is that twenty five years after democracy in South Africa, inequality still exists in our schools. The result is an indication that schools were not prepared enough for successful implementation of the new curriculum. The curriculum changes failed to address the issues of the infrastructure gap that existed between the formal Model C schools on the hand and township and rural schools on the other.

6.4. RECOMMENDATIONS

In this section, I deal with recommendations on technical issues and on future research. The technical recommendations address issues on factors affecting the successful implementation of new curriculum by Geography educators as well as the implications of this study on future research work.

6.4.1. Implications on technical issues

The effect of implementation of new curriculum can be more successful when educators are involved in the change. This involves the planning stage, formulation and implementation. The concerns of the subject educators should be infused into the new curriculum and this would enable the implementation of the curriculum to receive support from all subject educators. This development will increase professionalism among educators to counter the current discontent in the teaching profession. The participatory and bottom-up approaches to curriculum design and implementation are likely to increase educator skills, therefore, a successful curricula implementation.

Educators are to be capacitated to acquire knowledge on implementation of the new curriculum. The curriculum change must be integrated into pre-service and in-service training programmes for educators to be assisted by expert facilitators knowledgeable in both content and pedagogy. Educators view their subject advisers as guidance and counsellors and therefore, they must be involved in the training programmes in order to make sense of the curriculum implementation. Training and support help educators to acquire new skills in order to implement curriculum changes. The teaching of the four core components of Geography education, involving knowledge, skills, attitudes and values must take the centre stage of teaching and be taught with the range of teaching

techniques. Corporate bodies may be involved in the funding of excursion to enhance fieldtrip teaching techniques.

Infrastructure and resource needs can hamper the implementation of new curriculum. The previously-disadvantaged schools had a shortage of classrooms and Geography centres, laboratories, textbooks, computers, hence, these formed barriers to implementation of the new curriculum. No curriculum implementation can be successful without corresponding infrastructure and resource development.

6.4.2. Implications for research

This research has opened a flood-gate for other researches. Firstly, I recommend that a further study be conducted in the use of appropriate teaching method for a particular geographical concept to assist educators in planning and executing their classroom teaching and learning. This will go a long way to train educators to move away from the use of traditional approach to all lessons and to embrace the inquiry and learner-centred methods.

Secondly, this research serves as a base for further studies using comparative approach involving younger educators with less than five years teaching experience and those with more than ten years to identify their perspectives on the use of appropriate pedagogical approaches in teaching geographical concepts. This is likely to identify pedagogical transformation taking place in the educator training institutions in South Africa and to realign their training programmes to prepare students teach Geography in an integrated manner.

6.5 LIMITATIONS

The measure of strategies used in the classroom by educators could not be properly done through the use of questionnaires and the interview schedules. The observation method would have lent more credence to the other tools.

The major limitation of the research was detected in the high response rate of participants of “not sure” to some important statements. These large numbers affected the analysis but not the research outcome. These were believed to be educators with less than five teaching experiences and were employed to teach Grade 12 some years after the curriculum implementation. The perceptions of the recently-qualified educators on the effects of curriculum change on teaching and learning varies from educators with more than ten years teaching experiences.

6.6. CLOSING REMARKS

The study was set to spark conversations on the effective teaching and learning in the Grade 12 Geography classrooms in South Africa so as to address the issue of not only improve performance in the final national senior certificate examination results but the issues of lack of skills, values and attitudes. The aim of the curriculum is to impart knowledge, skills, attitudes and values to enable learners to appreciate issues within their local and global environment which could be achieve through Geography education. The highlight of the study is the development of a model on formulation and implementation of curriculum to achieve more effective teaching and learning in the classroom.

However, the study explains the differences that exist between the intended and enacted curriculum. From the educators’ perspective, the followings were revealed:

- Educators do not focus much on the aims of the Geography curriculum;
- Educators were not consulted on what should be included in the new curriculum;
- They were not adequately trained on the pedagogical approaches as prescribed by in the policy documents;
- Some educators engaged in traditional teaching methods and were promoting rote learning;
- They have difficulties in implementing learner-centred learning approaches; and
- Infrastructural and resources were some of the barriers to the smooth implementation of the curriculum.

The current development can be address through a conscious effort on the part of the Department to enhance the professional development of educators through:

- Addressing the classroom practices of educators by providing comprehensive in-service training to be conducted by highly-qualified facilitators.

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APPENDIX A: ETHICAL CLEARANCE

UNIVERSITY OF ZULULAND
RESEARCH ETHICS COMMITTEE
(Reg No: UZREC 171110-030)

RESEARCH & INNOVATION
Website: http://www.unizulu.ac.za
Private Bag X1001
KwaDlangezwa 3886
Tel: 035 902 6731
Fax: 035 902 6222
Email: LundallN@unizulu.ac.za

ETHICAL CLEARANCE CERTIFICATE

Certificate Number	**UZREC 171110-030 PGD 2017/190**						
Project Title	**Effects of Curriculum Change on Teaching and Learning of Geography in Grade 12 within King Cetshwayo District**						
Principal Researcher/ Investigator	Phillip Kwashi Atiso Ahiaku						
Supervisor and Co-supervisor	Prof P. Kutame		Dr B.T Gumede				
Department	Human and Social Sciences						
Faculty	Education						
Type of Risk	Low risk – Research						
Nature of Project	Honours/4th Year		Master's		**Doctoral**	x	Departmental

The University of Zululand's Research Ethics Committee (UZREC) hereby gives ethical approval in respect of the undertakings contained in the above-mentioned project. The Researcher may therefore commence with data collection as from the date of this Certificate, using the certificate number indicated above.

Special conditions:

(1) This certificate is valid for 1 year from the date of issue.
(2) Principal researcher must provide an annual report to the UZREC in the prescribed format [due date-01 December 2020]
(3) Principal researcher must submit a report at the end of project in respect of ethical compliance.
(4) The UZREC must be informed immediately of any material change in the conditions or undertakings mentioned in the documents that were presented to the meeting.

The UZREC wishes the researcher well in conducting research.

Mahlomaholo Geoffrey MAHLOMAHOLO

Professor Gideon De Wet
Chairperson: University Research Ethics Committee
Deputy Vice-Chancellor: Research & Innovation

CHAIRPERSON
UNIVERSITY OF ZULULAND RESEARCH ETHICS COMMITTEE (UZREC)
REG NO: UZREC 171110-30
26 -11- 2019
RESEARCH & INNOVATION OFFICE

26 November 2019

APPENDIX B: KZNDE AUTHORISATION LETTER

education

Department:
Education
PROVINCE OF KWAZULU-NATAL

Enquiries: Phindile Duma Tel: 033 392 1063 Ref.:2/4/8/1417

Mr PKA Ahiaku
PO Box 1481
Empangeni
3880

Dear Mr Ahiaku

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **"EFFECTS OF CURRICULUM CHANGE ON TEACHING AND LEARNING OF GEOGRAPHY IN GRADE 12 WITHIN KING CETSHWAYO DISTRICT",** in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the
Intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 11 January 2018 to 30 June 2020.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma at the contact numbers below
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

King Cetshwayo District

Dr. EV Nzama
Head of Department: Education
Date: 15 January 2018

KWAZULU-NATAL DEPARTMENT OF EDUCATION Postal Address: Private Bag X9137 • Pietermaritzburg • 3200 • Republic of South Africa
Physical Address: 247 Burger Street • Anton Lembede Building • Pietermaritzburg • 3201 **Tel.:** +27 33 392 1063 • **Fax.:** +27 033 392 1203• **Email:**Phindile.Duma@kzndoe.gov.za **•Web:**www.kzneducation.gov.za Facebook: KZNDOE....Twitter: @DBE_KZN....Instagram: kzn_education....Youtube:kzndoe

APPENDIX C: LETTER TO PRINCIPALS

University of Zululand
P.O. Box 32
Empangeni
3880

The Principal

PERMISSION TO CONDUCT RESEARCH IN YOUR SCHOOL

I am Philip KwashiAtisoAhiaku (Student number: 20120008) a registered student at the University of Zululand. I am currently undertaking Doctor of Education (D.Ed) with focus on Geography education in high schools in King Cetshwayo District.

This letter is requesting for permission to work with your teachers favourably. I would like to work with Geography teachers who are currently teaching grade 12 with regard to my research topic: Effects of curriculum change on learner's performance in Geography in grade 12 within King Cetshwayo District**.**

The insights gained from this research work will benefit education as a whole and Geography education in particular both in the district and province, and probably the country as a whole.

Please do not hesitate to contact me if you need more clarifications.

Thank you for your co-operation.
Yours truly

(PKA Ahiaku, BA, Hon UCC, Hon & MEd (UZ)
Email:mangoees@yahoo.com.
Cell: 0794477525

APPENDIX D: CONSENT FORM

EFFECTS OF CURRICULUM CHANGE ON TEACHING AND LEARNING OF GEOGRAPHYIN GEOGRAPHY IN GRADE 12 WITHIN KING CETSHWAYO DISTRICT

You are asked to participate in a research study conducted by: **Philip KwashiAtisoAhiaku, from Social Science Department, Faculty of Education, University of Zululand.**

The result of this research will contribute to Doctor of Education dissertation and publication in journal articles. You were selected as a possible participant in this study because you are teach Geography at high school (FET) grade 12

The study is designed to establish **Effects of curriculum change on teaching and learningofGeography in Grade 12 within King Cetshwayo District.**

The participation in this is voluntary and no monetary benefit will be received. As a participant you will be asked to fill in a short questionnaire to provide details about yourself and your perception about Geography curriculum changes and implementations. Such details will enhance my understanding of your classroom practices.

You will be asked to participate in an interview or respond to a questionnaire or both lasting not more than 30 minutes. The interview will be audio-taped so as to collect the data for interpretation and analysis. The recorded interview will be destroyed as soon as the data is transcribed to avoid getting into the hand of a third party.

There are potential benefits in participating in the research. You are likely to get expose to new ideas, an opportunity to reflect on your practice in the teaching of Geography as a subject. Through this teachers and learners might acquire knowledge and skills to improve their performance and encourage other learners to offer Geography.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality and anonymity of data obtained from each participant will be maintained by means of pseudonyms when I refer to you as in the thesis or in the journal articles. The name of your school will not be mentioned.

The information could be released to my supervisor should the need arise and he is aware of the university regulations concerning the protection of participant confidentiality and anonymity. The information could be released only if I experience problems analysing the data.

You can choose whether to participate in this study or not. If you volunteer to be in this study, you have the right to withdraw at any time without any consequences of any kind. You may also refuse to answer any questions you do not want to answer and still be in the study. I have the right to terminate your participation if found not to be co-operating accordingly.

Any further questions or concerns regarding the research, please do not hesitate to contact me through the following contacts

Philip K.A. Ahiaku (MEd)
Department of Social Sciences
Faculty of Education
Mangoees@yahoo.com
0794477525

The information above was described to me in English and was given opportunity to ask question and those questions were answered to my satisfaction. I hereby consent voluntary to participate in this study. I have been given a copy of this form.

.....

Name of participant

..... **28/08/2017**

Signature of participant **Date**

I declare that I explained the information in this document to the participant. He/She was given enough time and encouraged to ask questions. This explanation was done in English..

..... **28/08/2017**

Signature of researcher **Date**

APPENDIX D:STANDARD ETHICS PROTOCOL

I am Philip KwashiAtisoAhiaku (Student number: 20120008) a registered student at the University of Zululand. I am currently undertaking Doctor of Education (D. Ed) with focus on Geography education in high schools in King Cetshwayo District in Kwa-Zulu Natal Province.

Your willingness to participate in this research is very much appreciated. I would like to assure you that as a participant in this research, you are protected by ethics of research. Your rights to participate in this research include:

- Voluntary participation
- Refusal to answer questions any time
- Withdrawal from the research at any time
- Using language of your choice
- Your confidentiality and anonymity

Remember part or a whole of this information would be use for thesis and publication of journal articles. Your name or name of your school would not be used or published either in the thesis or the journal without your permission.

.....

Signature of participant

..... . 28/08/2017

Name of participant Date

APPENDIX E: QUESTIONNAIRE FOR GEOGRAPHY EDUCATORS

CURRICULUM CHANGE AND TEACHING AND LEARNING OF GEOGRAPHY QUESTIONNAIRE

The purpose of this questionnaire is to collect data on Effects of curriculum change on teaching and learning in Geography in Grade 12. Any information provided will be treated with uttermost confidentiality and will be used for academic purposes only.

SECTION A: DEMOGRAPHIC INFORMATION

For each of the following items, indicate what applies to you by marking the appropriate number in the box:

1. Gender

Female	1
Male	2

2. Age

21 – 30 years	1
31- 40 years	2
41-50 years	3
51-60 years	4

61 years and older	5

3. Highest academic qualifications

Secondary Teacher Diploma	1
BA or BSc with PGCE	2
B.Ed. or Honors' Degree	3
Master's Degree	4
Doctoral Degree	5

4. Geography as a major teaching subject

Yes	1
No	2

5. Teaching experience in years

0 – 10 years	1
11 – 20 years	2
21 – 30 years	3
31 – 40 years	4
41 and more	5

SECTION B: EFFECT OF CURRICULUM CHANGE AND TEACHING AND LEARNING OF GEOGRAPHY IN GRADE 12

For each of the following statements, indicate the extent to which you Agree or Disagree about your knowledge in curriculum change and effects on promoting teaching and learning of Geography in Grade 12 by marking in the box that applies to you.

Reasons for curriculum change	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
1. The new Geography curriculum is designed to improve learner skills	1	2	3	4	5
2. Curriculum updated to maintain the relevance of the subject to modern developmental concepts	1	2	3	4	5
3.To enhance current knowledge of learners to bring them to socio economic tenets of changing world	1	2	3	4	5
4. Changes to the curricula is to address the past injustices perpetuated by past colonial master	1	2	3	4	5
5. The change is to address the past injustices perpetuated by the previous administration	1	2	3	4	5
6. The new curriculum is to promote political ideology of the ruling party to bring about social cohesion	1	2	3	4	5
7. The new curriculum is to correct the problems identified from the implementation of the previously existing curriculum	1	2	3	4	5

Reasons for curriculum change	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
8. The curriculum change is to promote political decision in order to dismantle the colonial powers	1	2	3	4	5
9. The change is to promote teaching and learning approaches from teacher-centred to learner centred.	1	2	3	4	5
10. Curriculum change is to improve learner performance.	1	2	3	4	5
11. To enhance pedagogical knowledge of educators to bring them to current tenet of teaching and learning	1	2	3	4	5

Curriculum change and educator preparedness for the change to promote teaching and learning	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. Educators were adequately informed about the changes in curriculum from the onset	1	2	3	4	5
2. Inputs were invited from educators to be included in the new curriculum	1	2	3	4	5
3. In-service training capacitates educators with strategies to	1	2	3	4	5

Curriculum change and educator preparedness for the change to promote teaching and learning	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
cope with changes in curriculum					
4. Educators are adequately trained to promote teaching and learning in the new curriculum	1	2	3	4	5
5. Educator professional development workshops are conducted by training experts	1	2	3	4	5
6. Sufficient materials were distributed during training for educators to use in their schools	1	2	3	4	5
7. The teaching and learning materials provided are revised materials necessary for the change					
8. In-service training workshops attended have an impact on quality of teaching and learning of Geography	1	2	3	4	5
9. Teachers are continuously trained to enable them to handle the challenges brought about by the changes	1	2	3	4	5
10. Educators are professionally developed to help them to increase their knowledge regarding instructional practices in the new curriculum	1	2	3	4	5
11. Induction workshops of novice educators are conducted to help them understand the new curriculum	1	2	3	4	5

Educator knowledge of curriculum and classroom practices	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
1. The themes of Geography in the new curriculum are interesting to young people	1	2	3	4	5
2. The lessons are motivational to learners because they relate to everyday phenomena that appear in news and social media	1	2	3	4	5
3. The grade 12 curriculum is well structured with the topics arranged logically	1	2	3	4	5
4. The course contents are integrated enough to promote continuity from other grades	1	2	3	4	5
6. There is enough information in each course content when taught deeply	1	2	3	4	5
7. You are able to teach the course in time before the start of matriculation examination	1	2	3	4	5
8. There are too many things to teach during the one year course	1	2	3	4	5
9. The matriculation examination is well structured to cover all the course contents	1	2	3	4	5
10. Educator commands ability to select suitable and user	1	2	3	4	5

Educator knowledge of curriculum and classroom practices	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
friendly textbooks for learners					
11. Educator is able to promote individual learning in learners to maximize learning	1	2	3	4	5
12. Educator is able to promote co-operative learning in learners to maximize learning	1	2	3	4	5
13. Educator is able to create opportunities in terms of time for learners to think in Geography	1	2	3	4	5
14. Educator is able to provide opportunities in terms of space for learners to think in Geography	1	2	3	4	5
15. Educator provides enough guidance to learners to affect discovery ability in learners	1	2	3	4	5
16. Educator provides learners with skills in identifying, collecting, interpreting and analyzing data	1	2	3	4	5
17. Educator provides opportunity for project work involving field trips	1	2	3	4	5
18. educator teaches in the language of instruction and learning always	1	2	3	4	5

Educator knowledge of curriculum and classroom practices	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**

Curriculum change and learner achievement	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
1.The curriculum change influences learner performance in Geography positively	1	2	3	4	5
2. The curriculum change influences learner performance in Geography negatively	1	2	3	4	5
3. The grade 12 Geography curriculum provides learners to be problem solvers	1	2	3	4	5
4. The grade 12 Geography curriculum provides learners to be critical thinkers	1	2	3	4	5
5. The grade 12 Geography curriculum provides learners to	1	2	3	4	5

Curriculum change and learner achievement	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
be creative thinkers					
6. The grade 12 Geography curriculum provides learners to work effectively as individuals	1	2	3	4	5
7. The grade 12 Geography curriculum provides learners to work effectively as a team player	1	2	3	4	5
8. The new curriculum content enable learners to debate issues locally	1	2	3	4	5
9. The new curriculum content enable learners to debate issues nationally	1	2	3	4	5
10. The new curriculum content enable learners to debate issues internationally	1	2	3	4	5

For each of the following statement below, indicate by marking Yes or No the availability of the resources and infrastructure to promote teaching and learning.

Infrastructure and resources as challenges in implementing new curriculum	YES	NO
1. Do you have Geography centre with subject learning and teaching	1	2

Infrastructure and resources as challenges in implementing new curriculum	**YES**	**NO**
support materials?		
2. Do you have the relevant textbooks available for learners to study with?	1	2
3. Do you have enough computers for studying Geographic Information Systems?	1	2
4. Is there relevant software for studying Geographic Information Systems?	1	2
5. Does your school have sufficient topographical map and orthographic photo?	1	2
6. Is there constant and uninterrupted electricity supply in your school to operate the computers?	1	2

APPENDIX F: SEMI-STRUCTURED INTERVIEW SCHEDULE

How does curriculum change affect teaching and learning of Geography in Grade 12?

This question is broken down into the following sub-questions to provide a guide for data collection:

1. What are the basic reasons that cause changes in the Geography curriculum especially immediately after apartheid?
2. What effect do curriculum changes in Geography have on educators teaching in Grade 12 classroom?
3. How does Geography teaching and current educator practice translate into learner's achievement?
4. What are challenges experienced by Geography educators in implementing curriculum change in Grade 12?