Mitigating the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe

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DECLARATION

I, **CONSILIA JANGARA** hereby declare that the thesis entitled "**Mitigating the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe"**, submitted for the degree of Doctor of Philosophy in the Faculty of Education at North-West University has not been previously submitted for a degree at this or any other University. I further declare that all the sources I have used or quoted have been indicated and acknowledged by means of a complete reference list.

Signature: Date: 10/12/2020

DEDICATION

I dedicate this work to my late parents, Boniface and Selapia for inculcating in me the seed of hard work and the S.J.I Sisters for nurturing my talents. It is also dedicated to all fellow school managers who have the mandate of leading the implementation of curriculum reviews.

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ABSTRACT

Schools in Zimbabwe face challenges in the implementation of curriculum reviews. The Zimbabwean education system instituted various initiatives to broaden the curriculum to meet the needs of learners. Regrettably, little was achieved with regards the intended outcomes of these curriculum reviews. The purpose of this study was to suggest mitigations of the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe.

The research follows a qualitative case study design, to identify the challenges encountered by school managers in the implementation of curriculum reviews. Five secondary schools in Gweru Urban District in the Midlands Province of Zimbabwe were selected for this study and from which five school managers were purposively selected. Data were collected through one-on-one in-depth interviews with school managers and from literature reviews and document analysis. The data analysis was done through thematic approach. The study is underpinned by complexity theory whose tenets emphasise that curriculum reviews is a complex process requiring complex procedures.

Three themes emerged from this analysis: challenges encountered by school managers, current practices by school managers and measures that could be deployed to ensure successful implementation of curriculum reviews. The empirical study found that major challenges are inadequate teaching material and policy regulations. The data and literature study established that there is non-involvement of some stakeholders in the implementation of curriculum reviews. The literature study and empirical evidence confirm that availability of teaching material, teacher and learner motivation and involvement of stakeholders influence the implementation of curriculum reviews. The non-involvement of teachers and learners in the crafting of curriculum reviews makes them resist curriculum review changes. Teaching and learning is adversely affected by inadequate teaching material and infrastructure. The study also found out that school managers employ various school-based strategies which do not meet the standards in managing the challenges of implementing curriculum reviews. Schools rely heavily on revenue collected from fees which is affected by policy regulations and, to a lesser extent, schools receive external assistance from Old Learners Associations (OSA) and the business community.

To implement curriculum reviews successfully, school managers need to be empowered and there is need for stakeholders to be involved so that they collaborate towards successful

implementation of curriculum reviews. Given the autonomy they require, schools are capable of effectively implementing curriculum reviews.

To deal with the challenge of curriculum reviews, the study formulated a mitigatory curriculum reviews implementation model based on literature and research findings. This mitigatory model of curriculum reviews implementation is shaped by complexity theory which encompasses communication, connectedness, self-organisation, interaction and evaluation as integral elements in curriculum reviews and its implementation.

KEY WORDS

School managers, curriculum reviews, curriculum implementation, complexity theory; mitigating challenges

LIST OF ABBREVIATIONS AND ACRONYMS

ACARA	Australian Curriculum Assessment and Reporting Authority
ADKAR	Awareness Desire Knowledge Ability Reinforcement
ARTUZ	Amalgamated Rural Teachers union
ASCL	Association of School and College Leaders
BA	Bachelor of Arts
BOSTES	The Board of Studies, Teaching and Educational Standards
CAPS	Curriculum Assessment Policy Statement
CBC	Competence Based Curriculum
CBD	Central Business Centre
CDU	Curriculum Development Unit
CIET	Commission of Inquiry onto Education and Training
DFE	Department of Education
DSI	District Schools Inspector
ESD	Evaluation ad Syllabus Development
ESR	Education for Social Responsibility
GUD	Gweru Urban District
GWENT	Girls and Women Empowerment Network Trust
ICT	Information and Communication Technology
JC	Justice for Children
LO	Life Orientation
MoPSE	Ministry of Primary and Secondary Education
MSU	Midlands State University
NAHT	National Association of Head Teachers
NASH	National Association of Secondary School Heads
NCC	National Core Curriculum

NCES	National Catholic Education Commission
NCLB	No Child Left Behind
NCS	National Curriculum Statement
NEAB	National Educational Advisory Board
NQF	National Qualification Framework
NUT	National Union of Teachers
OBE	Outcomes-Based Education
OECD	Organisation for Economic Cooperation and Development
PED	Provincial Education Director
PISA	Programmefor International Learners Assessment
(P.S.)	Problem Solving
PS	Permanent Secretary
PSC	Public Service Commission
PTUZ	Progressive Teachers Union of Zimbabwe
REAP	Reading and Acquisition Programme
SDC	School Development Committee
SI	Social Interaction
STEM	Science, Technology, Engineering and Mathematics
TaLi	Tag a Life International
TIE	Tanzanian Institute of Education
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
WCoZ	Women's Coalition of Zimbabwe
ZBC	Zimbabwe Broadcasting Corporation
ZIMASSET	Zimbabwe Agenda for Sustainable Socio-Economic Transformation

ZIMSEC	Zimbabwe School Examinations Council
ZIMTA	Zimbabwe Teachers' Association
ZNCWC	Zimbabwe National Council for the Welfare of Children

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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

The implementation of curriculum reviews is fraught with challenges. These challenges are experienced mainly by school managers who are supposed to lead in the implementation of reviewed curricula. This study seeks to identify mitigations of the challenges encountered by school managers who are teachers entrusted with the responsibility of providing smooth functioning of educational activities in the implementation of curriculum reviews in Zimbabwe.

Educational activities include the development of the school in all respects to the satisfaction of learners, teachers and non-teaching staff. Apart from this, school managers are also in charge of guiding and supervising teachers during educational activities. School managers are therefore extremely important for the fulfilment of the schools' vision and mission (Turabik, 2013:4). Kobola (2007:33) notes that while being proactive in the technical aspects of the implementation of the reviewed curricula, school managers sometimes fail to be proactive in the distributive and emotional aspects as well as values and belief systems which are critical in the successful implementation of the curriculum reviews.

According to Shizha & Kariwo (2011:16), Zimbabwe's education system has a complex history rooted in a colonial system that divided education along racial lines. When Zimbabwe gained independence from colonial rule in April 1980, the majority of black people did not have the opportunities and facilities for equal access to formal education. The education system was restrictive for the Black population and most of them only finished six or seven years of primary schooling. In 1980, the new government inherited a system of education that was racially biased and unequal in both governance and quality. The colonial Rhodesian government made European education compulsory and universal and spent as much as twenty times more per European child than the African child (Shizha & Kariwo, 2011:19).

Across the world, the curriculum has a holistic meaning encompassing not only subjects, but also the connections between subjects, teaching methods and aspects of schooling that result in the educational experience the learner receives (SU, 2012:154). Sharma (2011:278) proposes that

curriculum change is only likely through active discussion and the opportunities for professional development and ownership of change by all stakeholders involved within the process.

According to Rao (2010:243) curriculum review is the process through which we ask and answer questions about effectiveness of a curriculum and the extent to which it enables teachers to support children in achieving curriculum aims. Curriculum review is integral to system improvement; it involves gathering, analysing and reporting information about how the curriculum is experienced by learners, teachers, principals, parents and others, in order to improve it. It is the key to ensuring that a curriculum remains responsive to the needs of its intended beneficiaries who are principals, teachers, parents and ultimately learners. No matter how it is arranged, there are often members of staff who lose out on account of change. Yilmaz and Kilicoglu (2013:14) emphasises that such staff must be made to feel that the organisation is willing to spend much time and energy on their unique problems.

Aldosari, Alhajri, Almuzain, Alqahtani & Alajmi (2015:123) indicate that there should be a conducive environment that allows people to overcome their anxieties about change, the anxieties caused by fear of incompetence and loss of self-esteem. It is important also to mention that acceptance and commitment to curriculum change do not happen automatically when people are exposed to a good idea, but they are created through a process of involvement. Aldosari et al (2015:125) states that people are more apt to support something they helped to create, are more willing to believe information they helped to collect and more energised to work on problems they helped to define.

Resistance towards change can be reduced by training that makes staff more flexible, honest and open with each other. The school manager must generate a staff development programme to the proposed change. The training should take out the individual from entrenched positions, enabling them to look at the problem from several angles and making them more receptive to change. To this end, Hayes, Pistorello and Lewin (2012:982) indicate that persons move from the acceptance phase into the commitment phase if they perceive that the benefits of the change exceed the costs of disruption.

According to Parker (2012:3) during change, the school manager should move from a reactive-oriented performance improvement approach to a proactive, preventive approach that focuses on

identifying what educators do well and creating growth and development plans that maximise their contributions. This approach suggests that successful curriculum implementation is the result of training that builds on educators' strengths while managing their weaknesses. Thus, the school manager should adopt a developmentally oriented philosophy whereby their efforts are dedicated to teachers' continuous improvement based on their strengths.

It is important for the school managers to know that even if change is received enthusiastically, there is no guarantee that it shall be satisfactorily implemented (Kobola, 2007:32). Noor, Don, Husin and Khalid (2018:37) state that an instructional leader provides curricula direction for the team, inspires and energises the team, motivates and mediates educational policy to the team, mentors and supports the team and monitors the progress if effective curriculum implementation is to take place.

A lot of research has been conducted on the implementation of curriculum reviews such as by Ifeoma(2010); Kobola (2007);De Waal (2004); Gathi (2012);Jamila (2012);Pansiri (2014); Mkandawire (2010); Badugela (2012), but very little has been said about mitigations of the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. A mitigation is an activity which strives to eliminate or reduce loss arising from the effects of a disaster. It is a precautionary measure, and in this specific study the mitigation is directed at the challenges encountered by school managers in curriculum reform and renewal.

1.2 Statement of the problem

Three decades after Zimbabwe attained independence, several curriculum reviews have not achieved their objectives at the stage of implementation. There is a general sense that most of the education reform programmes around the world have failed to achieve their objectives (Harris 2006:13). According to Munikwa (2011:23), the Zimbabwean education system has made various initiatives to broaden the curriculum through curriculum reviews to accommodate the varying interests and aptitudes of learners. Among these were Education with Production (EwP) in 1981 and vocationalisation of the school curriculum in 1986 and 1996. Regrettably, very little was achieved with regards the change proposed by these reviews (Nziramasanga, 1999; Mavhunga, 2002 and Redmann, 2005). One of the major drawbacks has been that while

schools adopted curricula reviews in the past decade, the degree of their actual use in the classroom has been limited partly due to lack of support. “Education with Production” was designed to marry theory with practice in every school subject.

This was followed by “Schools o`n the shop-floor” programme in the early 1990s.This programme strove to link schools with the workplace and vocationalisation of the school curriculum. The government’s effort to vocationalise secondary education by twinning schools with factories was only taken aboard by a few schools in the urban centres (Nziramasanga, 1999). Efforts to vocationalise the curriculum through the 1996 Education Act did not yield much success. From the foregoing, it can be argued that initiatives have been undertaken to broaden the secondary school curriculum to cater for the various interests and aptitudes of learners with very little success (Munikwa, 2011:23).

Pedzisai, Tsvere and Nkhonde (2014) conducted research on the Zimbabwe two-pathway education curriculum. The study focused on gaining insights into the policy implementation, challenges and opportunities. A major finding pointed to non-uniform implementation of the two-pathway education by schools as a result of lack of information and the unavailability of both human and material resources. Lack of finance for infrastructural development also contributed to non-uniform implementation.

Following recommendations of the Nziramasanga Commission of 1999, the Zimbabwe Ministry of Primary and Secondary Education introduced a reviewed curriculum in January 2015 which was organised into three learning levels namely; Infant School Curriculum, Junior School Curriculum and Secondary School Curriculum. The reviewed curriculum was set to be implemented in seven phases (2016 – 2022) and implementation commenced in January 2017.

Nkala reported in the Zimbabwe National News of 7 January (2017:1), reported that the Minister of Primary and Secondary Education was criticised for rushing to implement the reviewed curriculum without proper consultations with stakeholders. Nkala also reported that Takavafira Zhou, the Progressive Teachers Union of Zimbabwe (PTUZ) president, argued that the updated curriculum was complex and involved new technologies for all schools, when most institutions in the rural areas lacked the requisite infrastructure and most teachers were not computer literate.

1.3 RESEARCH QUESTIONS

The study on the mitigation of challenges encountered by school managers is based on the following main research:

1.3.1 Main research question

What mitigation strategies could school managers design to overcome challenges in implementing curriculum reviews in Zimbabwe?

1.3.2 Sub questions

The following sub questions focus on the mitigations of the challenges encountered by school managers in the implementation of curriculum reviews:

- What challenges do school managers encounter in the implementation of curriculum reviews in Zimbabwe?
- What are the current practices by school managers in overcoming the challenges?
- What measures could school managers deploy in mitigating the challenges encountered in implementing curriculum reviews in Zimbabwe?

1.4 RESEARCH AIM

The aim of the study is to identify and clarify mitigations of the challenges encountered by school managers in implementing curriculum reviews in Zimbabwe.

1.5 OBJECTIVES OF THE STUDY

This study sets out to achieve the objectives designed to:

- Determine the challenges which school managers encounter in the implementation of curriculum reviews in Zimbabwe.
- Establish the current practices by school managers in overcoming challenges encountered in the implementation of curriculum reviews.

- Suggest measures that school managers can deploy in mitigating the challenges encountered in the implementation of curriculum reviews.

1.6 PRELIMINARY LITERATURE REVIEW

This section reviews literature relating to mitigating challenges encountered by school managers in implementing curriculum reviews in Zimbabwe. It commences by offering an overview of curriculum reviews globally and factors that prompt curriculum reviews. Subsequently, the section proceeds to analyse the roles of school managers in curriculum implementation and the challenges they face in implementing curriculum reviews. In the penultimate part, it looks at what should be done to redress the situation. The section terminates in an appraisal of models in educational change, with the aim of developing ideas from these models to formulate mitigations that may be used by Zimbabwean school managers to deal with challenges encountered in implementing curriculum reviews.

Based on the works of Dambudzo (2015:20), school leaders contribute in a variety of ways to the design and successful implementation of the school curriculum. Curriculum implementation entails putting into practice the officially prescribed courses of study, syllabi and subjects. The process involves helping the learner acquire knowledge and new educational experiences. It is important to note that curriculum implementation cannot take place without a learner. Implementation takes place as the learner acquires the planned or intended experiences, knowledge, skills, and attitudes that are aimed at enabling the same learner to function effectively in a society (University of Zimbabwe, 1995:8).

Schools are a complex web of inter-dependent parts. Responsibilities of school leadership include getting the system to better achieve the school's mission. (Dambudzo, 2015:20-21). Excellent school leadership involves creating the conditions necessary for the teachers' potential to be actualised. Teachers themselves should be viewed as leaders. They lead in the classroom by making the curriculum real to learners and creating opportunities for learner learning. Teachers as reflective practitioners can also play an important role in school improvement and become positive agents of institutional change.

In consonance with (2011:47), teaching and learning in schools are expected to be aligned with the demands of curriculum reviews. School managers are the driving force in any school and the key to improving the quality of the learning process. School managers engage in the implementation of curriculum reviews every day of their school leadership life as they initiate curriculum changes and implement decisions on educational matters. However, the school manager does not need to be considered as an expert in educational matters. Instead, the curriculum and instructional leadership role of the school manager is more appropriately configured as the facilitator of a process of collaborative inquiry, problem-solving and school development (Ramalepe & Zengele 2014:10).

In executing a facilitation role in the curriculum, there is lack of a deep understanding of the foundations of curriculum development and the contributing disciplines of psychology, philosophy and sociology and how these function in integrated ways in the entire curriculum (OECD, 2001:17-18). School managers are not always specialists in curriculum issues hence they lack deep understanding of the philosophy and sociology behind curriculum reviews. Appointments of school managers are based on experience rather than expertise in curriculum design and evaluation.

There is lack of leadership power which is crucial in the school's implementation of curriculum reviews, continuous nurturing and promotion of knowledge and skills of teachers. A number of instructional support strategies, such as making suggestions, giving feedback, modelling, using enquiry and soliciting advice and opinions from teachers and giving praise are lacking among the majority of school managers. There is also lack of team building, teacher empowerment, delegation of authority, garnering support for school programmes, use of information technology and increased community participation in the implementation of curriculum review process (Leithwood & Jantzi, 2006:223).

McConnel (2015:231) argues that policy makers usually change policies with little regard for firstly, the existing 'on the ground realities' of local, cultural and classroom situation and secondly, to the reaction of people affected by the change, especially the teachers. This lack of engagement leads to the failure of a particular initiative if not seriously investigated to inform policy for future reviews. Often with the failure of one change effort, policy makers move on to another change effort which may also fail because the initial one failed. As wolf – Wendel, Ward

& Kinzie (2009:416) notes, policy makers rarely make public statements about unsuccessful initiatives and it is even rarer to hear them admit that reasons for failure have anything to do with their own policy making. Instead, it is customary to blame school managers and teachers for their inability to understand and/or implement new practices.

Mpolomoka, Mwanza, Mabenga, Muvombo, Matimba, Nguni & Banda (2019:3) assert that most of the large-scale change initiatives in education are top-down where decision making remains limited to policy makers in consultation with educationists, particularly those perceived to be top in the hierarchy of the education system in universities. This practice reduces the sensitivity to and inclusion of a 'people's reality' or a 'practitioner's reality' in the content and process of change. This has serious implications for subsequent stages of the change initiative, especially the institutionalisation of practices/processes. However, there is an increasing realisation that without the ownership of the change by the people responsible for implementation, change cannot achieve the desired results.

Kobola (2007:44) says it is very difficult for school managers to facilitate effective implementation of the curricular if the education system has limited funding capacities. Underfunding raises a lot of other implications for the curriculum. The economy of a nation determines the success of curriculum implementation. Although government introduced tuition fees in secondary schools and higher institutions of learning, institutions are still experiencing liquidity problems. This has a negative effect on curriculum implementation. In such situations, teacher effectiveness is hampered and it becomes almost impossible for the school manager to ensure effective implementation of the curriculum (Bush &Bell, 2002:72).

A major challenge any school manager has concerning implementation of curriculum reviews is to motivate the staff to accept the envisaged change. Mason (2001:41) states that motivation should be understood as a management strategy to persuade people to change, to release staff's trapped potential and to bring out the best in people, to improve teaching and learning.

School managers encounter teachers who are negative with any review in the curriculum. Since the curriculum package is often taken as a blueprint, teachers lack active participation in the implementation of the reviewed curricula for they fear being deskilled. What is available from the literature are challenges of implementing curriculum reviews the world over and in Zimbabwe in particular. There is lack of local solutions or school-based solutions to these

challenges implying that school managers are not proactive in the implementation of reviewed curricula (Sharma, 2010:130).

1.7 THEORETICAL FRAMEWORK

Quality academic writing demands that a plan has to be made before putting pen to paper or hand to computer. This requirement pertains to the conduct of research as well (Chawira, 2017:37). The plan that is made in academic writing is the equivalent of the theoretical framework in conducting research for a thesis. Anfra & Mertz (2006:1) say that a theoretical framework provides an anchor for the problem of investigation/ statement, literature study, research questions and methodology.

The complexity theory is a scientific ontology which is used to explain the nature and problems of change. The scientific ontological argument is that the future is a possibility but not a certainty. Curriculum reviews could therefore be understood from the context of this ontological position. For example, the complexities of curriculum reviews relate to dynamics emerging at school, district, provincial and state levels. The dynamics come from the nature of human relations as individuals or groups which have a direct connection in the process that develop from unpredictable patterns. Distributed control and communication are some of the key principles used to manage emerging dynamics (Pansiri, 2014:27). This implies that for effective implementation of reviewed curricula, there is need to involve and engage teachers and learners since they are directly affected by the curriculum change. Their involvement makes them own curriculum programmes and challenges them to put planned programmes into practice.

Complexity theory helps the researcher to identify stakeholders in curriculum implementation who are policy makers, school managers, teachers and learners. Complexity theory also helps the researcher to understand that curriculum implementation is a complex process which should not be approached in a linear fashion. This theoretical lens helps the researcher to understand that curriculum implementation requires communication (connectedness), collaboration and interaction (engagement) as key ingredients (Stacey, 2000:106).

The Complexity theory thrives on collaboration, interaction and communication, which determine even the data collection. In view of this research, complexity theory influences the

choice of the research design and research methodology which are in line with the communication, collaboration and interaction imperatives of the paradigm. Curriculum implementation involves people and getting information from the participants in data collection hence the need for communication, collaboration and interaction (April, McDonald &Vriesendorp, 2000:34).

1.8 RESEARCH DESIGN AND METHODOLOGY

1.8.1 Design

Complexity theory helps in choosing the research design. Multiple case study gives us a complexity study area unlike a single case study. Since we are dealing with a complex study which is curriculum implementation, complexity theory assists in the choice of data collection methods which should be multi-faceted so as to have a deep understanding of the complex subject of the implementation of curriculum reviews.

The research design is a multiple case study involving five schools in Gweru urban cluster. The school managers were the participants. The use of multiple case study was interpretive as the data collected was interpreted to give meaning in suggesting mitigations in overcoming the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe.

Implementation of curricular reviews is a complex problem which requires in-depth understanding of multiple cases of the phenomenon. Data from one case was cross checked, triangulated against data from other cases so as to have a better understanding of the phenomenon. Multiple case study was a suitable design which derives from complexity theory. Multiple case study yielded data that generated possible mitigations in overcoming challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe.

A multiple case study methodology was adopted to collect data for suggesting mitigations in overcoming challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. Starman (2013:29) outlines the characteristics of case study as the portrayal of participants' lived experiences and feelings about a situation. A case study essentially probes the phenomenon in its real-life context.

The research explores the experiences of school managers in the process of implementing curriculum review; therefore, it is based on the challenges and experiences in the process of its implementation. This study gathered data on ways of overcoming the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. A multiple case study was adopted to present and interpret data on overcoming challenges in the implementation of curriculum reviews through in-depth study and analysis of the individual experiences of those implementing the curricula review. The multiple case study design was best suited for the purpose and focus of this research. Cohen Manion and Morrison (2007:254) indicate that case studies probe, examine and interrogate participants' lived experiences of a specific phenomenon.

1.8.2 METHODOLOGY

Walters (2006:35), highlights that says methodology is the frame of reference for the researcher which is influenced by the paradigm in which the researcher's theoretical perspective is developed. Somekh and Lewin (2005:346) also define methodology as both the collection of methods and rules by which a particular piece of research is undertaken and the principles, theories and values that underpin a particular approach. Tuli (2010:102) extends this arguing that methodology is a research strategy that translates ontological and epistemological principles into guidelines that show how research is conducted, and principles, procedures and practices that govern research. The research methodology of this study is guided by theoretical perspectives of interpretivism and constructivism.

1.8.3 Site selection

The study involved government schools. Five secondary schools in Gweru urban circuit, Gweru District in the Midlands Province of Zimbabwe were selected. These schools differ in terms of infrastructural resources. Government schools tend to have inadequate infrastructure compared to private and church owned schools. Government schools and public schools are non-selective in the sense that they enrol any learner irrespective of examination grade while church schools enrol learners on the basis of merit. All these schools hold speech and prize giving days as occasions to motivate learners and teachers. Private and church owned schools are strongly supported by parents' assemblies unlike government schools. Since private schools offer better salaries than church and government schools, they attract dynamic managers.

1.8.4 Participants' selection

According to Palys (2008:698), there are diverse versions of purposive sampling from which a researcher selects the most suitable for a particular study. For this study, convenience, criterion and expertise determined the sampling.

Purposive sampling was used to choose five school managers to participate in the study. Bhattacherjee (2012:69) defines convenience sampling as one in which a sample is drawn from that part of the population that is close to hand, readily available or convenient. Since the researcher is a full-time school head, she used convenient sampling to maximise on the time devoted to visiting the sites. Etikan, Musa and Alkassim (2016:3) define expert sampling as one in which the researcher looks for individuals who have particular expertise that advances the researcher's interests and potentially opens new doors. Expert sampling was used to select the expert school managers in managing the implementation of curriculum reviews. Suri (2011:69) defines criterion sampling as searching for cases or individuals who meet a certain criterion for example that they have a particular life experience. The researcher also used criterion sampling to select school managers with experience in implementing curriculum change. The school managers were chosen purposively by virtue of their responsibilities in curriculum implementation. The small sample size is meant to understand the depth rather than the breath of the problem.

1.8.5 Data Collection Strategies

Data collection methods included open-ended interviews to generate data of the experiences of school managers. Face-to-face interviews were used to collect data from the school managers. These interviews focused on the challenges encountered and the current practices in mitigating the challenges experienced by school managers in implementing school curricula in Zimbabwe. This tool was deemed suitable in keeping with the interpretive philosophy of the study as unstructured or semi-structured interviews are often used by interpretive researchers and assume greater diversity in both the design and the use of the research instrument and in the nature of responses from participants (Bush, 2007:94) and in interviewing people, we can find out what is in somebody else' mind: especially through interviewing, a framework is created for participants to share their views as they best see fit (Buriro, Awan & Lanjwani 2017:3).

The researcher used minutes of academic board meetings and staff meetings to get information of what the participants think and say outside the context of the research with regards challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. Because of the multifaceted nature of the data collection method, complexity theory determined the interpretive analyses where categorisation of data and Emergent themes were highlighted.

1.8.6 Methods of Data Analysis

Data analysis followed the interpretive content analysis (Sargeant, 2012). Data from interviews and the document was coded, categorised and thematised (Kawulich, 2010) case by case and then cross-case to establish the major concepts of the findings (Moriaty, 2011). This is in line with the principles of complexity theory because data coding, categorisation and thematisation produce complex patterns. Data analysis was done in the context of the credibility, transferability (Shanton, 2004) conformability (Loh, 2013:5) and trustworthiness (Tuli, 2010) of the findings.

1.9 Ethical Aspects

Ethics concerns the morality of human conduct, according to Fouka & Mantzorou (2011:4) Edwards and Maunthner (2003:14). The researcher sought clearance from the Ethics Office of North-West University. The Ethical Clearance Certificate enabled the researcher to seek permission from the Ministry of Primary and Secondary Education in Zimbabwe. Furthermore, approval was sought from the Midlands Provincial Education Office to conduct research in secondary schools in Gweru District. Permission to do research was sought from school managers by way of personal visits. Moreover, the researcher observed the ethics principles of conducting research. These are elaborated here.

1.9.1 Informed Consent

The purpose of the research was explained to participants for purposes of informed consent. In accordance with Nnebue (2010:5) informed consent is a mechanism for ensuring that people understand what it means to participate in a particular research study so that they can decide whether or not they want to participate. The researcher got voluntary consent of the participants and the participants signed that they voluntarily agreed to participate in the study. The

participants were also informed that they were free to withdraw if they felt they no longer needed to continue.

1.9.2 Confidentiality and anonymity

Confidentiality and anonymity were assured during the visits. According to Flick (2009:42) confidentiality becomes problematic when research is done with several members at the same setting. He contends that readers of the report should not be able to identify which persons took part in the study. Participants were guaranteed that their identities would not be revealed when reporting in the final study to ensure the privacy and confidentiality. Participants' names were not used; neither were the identities of the schools. The recordings, transcripts and field notes were stored in a lockable cabin to protect the identity and views of participants.

1.9.3 Protection against harm

Protection against harm pertains to doing well and avoiding harm (Orb, Eisenhaurer & Wayenden, 2001:93). Potential harm was prevented or reduced through the application of appropriate ethical principles. Assurance was given to participants that no harm would befall them as the study is purely for academic purposes. This is corroborated by Hessen–Biber and Leavy (2011:64) that participants need to be safeguarded from any mental or physical harm that might befall them consequent to their participation. The researcher ensured that the information they proffered was not be linked to them directly by using alphabetic letters to refer to their schools in the data analysis as well as in the reporting of the findings. The researcher ensured that there was no mental harm by just focusing on the information the participants were prepared to provide without undue pressure on them.

1.10 CONTRIBUTION OF THE STUDY

The study concentrated on suggesting the mitigations against the challenges encountered by school managers in the implementation of curriculum reviews as many curriculum reviews in Zimbabwe seem to have failed at implementation. The study contributes towards mitigations that school managers could apply in dealing with challenges of implementing curriculum reviews.

This study contributes towards the inclusion of curriculum expertise as a key criterion in the appointment of school managers by the Ministry of Primary and Secondary Education. It contributes towards the decentralisation of curriculum reviews to Provinces to make curriculum packages manageable and also address the context of the learners. The study contributes to a bottom- up instead of top-down approach to the interpretation of reviewed curriculum packages so that ownership is evident in the implementation protocols.

1.11 CHAPTER OUTLINE

Chapter 1

This chapter provides the background to the study and outlines the theoretical framework of the study.

Chapter 2

This chapter explains complexity theory, its origins, principles and values are discussed, including the concept and challenges of management of educational change.

Chapter 3

This chapter interrogates the literature related to the mitigations of challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. It delves into the challenges of curriculum management and curriculum change.

Chapter 4

This chapter presents and justifies the qualitative design of the study. The interpretive paradigm that acknowledges reality and knowledge as human constructs is also discussed. Methodology of the study, strategies for data collection, ethics issues and trustworthiness also form part of this chapter.

Chapter 5

The findings of the empirical study are presented using thematic approach. These are analysed for meaning, offering significant insights into the findings as they respond to the research questions.

Chapter 6

The conclusions based on the findings of the study are presented. These conclusions are objective. Mitigations of the challenges encountered by school managers are outlined and the chapter ends by making recommendations for further study.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The previous chapter introduced the study and outlined the background to the research, defined the research questions and aims of the study. Chapter two introduces the theoretical framework for mitigating challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe.

A study of this magnitude in the context of implementation of curriculum reviews in secondary schools in Zimbabwe demands that it be guided by a theoretical framework that offers a foundation for making informed decisions on enacting curriculum reviews. This chapter is anchored on complexity theory. This theory suits the nature of this qualitative and interpretive study. This chapter covers the tenets of the theory and the role of the researcher using complexity theory as a framework that interrogates the implementation of curriculum reviews in the Zimbabwean context.

2.2 ONTOLOGICAL AND EPISTEMOLOGICAL ASSUMPTIONS

An assumption is a realistic expectation which is believed to be true. In other words, it is a statement that is considered true although it has not been scientifically tested. According to Scotland (2012:9), every paradigm is based upon its own ontological and epistemological assumptions. Ontology is a branch of philosophy which is concerned with being and with what exists while epistemology is concerned with knowledge and how we come to know things (McQueen & McQueen, 2010:151). Ahmed (2008) cited by Chawira (2017:152), says that ontological assumptions respond to the question: “What is there that can be known?” This empirical study aims to suggest mitigations of the challenges encountered by school managers in implementing curriculum reviews.

The suggestion by Ahmed (2008:5) is that researchers guided by ontology have to assume that the world they investigate is populated by human beings who have their own thoughts, interpretations and meanings. McQueen and McQueen (2010:151) see epistemology as a discipline concerned with the nature and forms of knowledge hence epistemologically, the researcher should be concerned with procedural knowledge. In this study, procedural knowledge deals with procedures in mitigating challenges encountered by school managers in the implementation of curriculum reviews. Scotland (2012:11), says the ontological assumption of interpretivism is relativism which is the view that reality is subjective and differs from one person to the other. It is in this vein that the researcher collected data from five different school managers who have different experiences and views on the implementation of curriculum reviews. Reality is individually constructed so there are many realities as there are many individuals. This implies that there is no objective reality that can be known, and the researcher's goal is to understand the multiple social constructions of meanings and knowledge.

2.3 THEORETICAL FRAMEWORK

Grant and Osanloo (2014:12) define a theoretical framework as the foundation from which all knowledge is constructed for a research study, serving as the "blueprint" for, or the structure that guides the entire inquiry. Thus, it has strong implications for every decision that the researcher makes in conducting the study. Grant and Osanloo (2014:12) suggest that a theoretical framework consists of a selected theory, which is complexity theory in this study. This theory influences the researcher's thinking with regards the conceptualisation of the research topic and the plan of how to conduct the research.

Anfara and Mertz (2006:1) say that a theoretical framework provides an anchor for the problem of investigation, literature review, research questions and methodology. Grant and Osanloo(2014:12) argue that a theoretical framework serves as the structure and support for the rationale, the purpose and the significance of the study. It is also the base on which the data analysis tool rides. A theoretical framework explains a certain set of observed phenomena in terms of a system of constructs and laws that relate these constructs to each other (Gall & Borg 1996:8).

Theoretical frameworks are considered an important component of research because they map a way for the researcher to conduct appropriate research by providing theoretical underpinnings which allow the researcher to "formulate the initial research problem..." (Adom, Hussein & Agyem, 2018:438) The theoretical framework also allows the researcher to "ask appropriate research questions, select an appropriate population of study, guide their choice of research design and assist in the interpretation of the data and conclusions reached" (Adom, Hussein & Agyem, 2018:438). Because this study entails mitigating challenges encountered by school managers in implementing curriculum reviews in Zimbabwe, complexity theory was used to underpin the entire study.

2.4 ORIGINS, FOUNDERS AND EXPLANATION OF COMPLEXITY THEORY

'Complexity' derives from Latin root meaning 'to entwine" the notion that an organism interacts dynamically with its environment, influencing and in turn being influenced by its environment, is a key principle of the emerging science of complexity (Morison, 2002:16). The foundation of Open Systems Theory, a forerunner of complexity theory, was formulated by Von Bertalanffy – a biologist from the 1930s onwards and was taken further into Open Systems Theory by Katz and Kahn (1966,1978) who themselves, built on the work of Allport (1954, 1962). Complexity theory goes further than Open Systems Theory, for Open Systems Theory is ultimately, deterministic and its consideration of nonlinear systems marginal. Complexity theory breaks with this notion of nonlinearity (Stacey, 2000:146). Complexity theory is the offspring of chaos theory, but, as with Open Systems Theory, moves beyond it.

Complexity theory developed from the 1980s, particularly in the work of the Santa Fe Institute – in the United States. In some sense, the *ancient* regime of chaos theory has given way to the study of complexity as 'life at the edge of chaos.' It explains how open systems operate as seen through holistic spectacles. In complexity theory, a system can be described as a collection of interacting parts which, together, function as a whole, it has boundaries and properties (Wheatley, 1999:10). In this study the system is the process of implementing reviewed curricular and the interacting parts are the stakeholders and the resources. These parts interact in a complex way hence the relevance and validity of this theory in explicating curriculum review process in the area demarcated in this study.

Defining complexity theory is a presumptuous undertaking, given its many traditions and diverse perspectives. However, Waldrop (1992:16-17) posits that complexity theory examines how living phenomena (curriculum reviews), for example, emerge in a web of relationships that form among various aspects, including both social and material things such as bodies, instruments, desires, politics, settings and protocols. Such things do not come together in a linear cause – effect trajectory, as so many aspects of the curriculum seem to presume, nor are they ordered together through top-down authority. Instead, they become combined through a web of non-linear interactions that continually present novel possibilities and exercise multiple casual influences on what emerges (Woermann 2010: 270).

2.5 TENETS OF COMPLEXITY THEORY

Complexity theory focuses at the world in ways which break with simple cause-and-effect models, linear predictability and a dissection approach to understanding phenomena, replacing them with organic, non-linear and holistic approaches in which relations within interconnected networks are the order of the day as suggested by(Lewin,1993:38).

A new mind is beginning to emerge, however, which recognises that social processes are too complex and "messy" to be attributed to a single individual or pre-planned streams of events (Sammut-Bonnic 2014:1) Complex adaptive systems comprise many interacting elements which must be understood holistically. These elements, because of their interactions, cause new elements to form new phenomena, new structures and new rules of behaviour. Each element influences, and in turn is influenced by, the other elements in the system and together they rise to generate new forms whose nature and structure it might not have been possible to predict. Therefore, institutions, agents and systems co-evolve according to Morrison (2002:21).

2.5.1 Connectedness

Connectedness implies relationships, for example, between individuals and teams, between teams, between subsystems, between the institution and its environment (Lewin & Regine,

2000:19). Further, these relationships are mutual, rather than singular. On an interpersonal level, this suggests an increased need for trust between equal partners.

Connectedness, a key feature of complexity theory, exists everywhere. In schools, children are linked to families, teachers, peers, societies and groups, teachers are linked to professional associations, other teachers, other providers of education; workplace placements for children, support agencies like psychological and social services, policy making bodies, funding bodies, the courts and police services and to many other support systems. The school is not an island but is connected externally in several ways (Morrison, 2002:28).

Connected networks rather than islands are the order of the day. Connectedness is also reflected in the Agile Manifesto and twelve principles of Agile software which were consequences of industry frustration in the 1990s. It was at the second meeting where the Agile manifesto and the twelve principles were formally written. In the Agile principles, businesspeople and developers work together daily throughout the project (Schon, Escalona & Thomaschewski, 2015:61). The same principle is applicable in the implementation of curriculum reviews. The implementation of curriculum reviews requires curriculum review planners to work hand in glove with stakeholders for its effective.

Morrison (2002:28) remarks, we can learn from the spider and her web. If the web breaks, she reconnects it to itself. In order to strengthen a system, we make more connections and stronger relationships, and this is an internal rather than external process. The brain is a mass of neural networks with no single control mechanism. It is distributed throughout the system and information, knowledge and meanings and their control is also distributed throughout the system (Waldrop 1992 cited in Morrison, 2002:28). The implementation of curriculum reviews operates the same way the brain controls the operation of the body which justifies complexity theory in this study.

Morrison (2002:28) argues that school managers have to understand micro politics in detail if they are to effect change successfully. On a more formal level, common sense argues that no organisation possesses all the knowledge stored in a system. Curriculum reviewers rely on distributed knowledge and being able to draw upon it. It is folly for curriculum reviewers to

believe that they have all the knowledge of the system. The implication of this, as Wheatley (1999:78) cited in Morrison (2002:28) observes, is that self-organisation through connectedness requires democratic processes; it is inevitable as the author posits to include people in curriculum implementation. This means that in the implementation of curriculum review, all stakeholders must play their part and the voiceless must be given their voice and agency.

2.5.2 Self-Organisation

Self-organisation refers to a patterned behaviour arising from agents interacting locally according to their own principles or 'intentions' in the absence of an overall blueprint for the system (Stacey 2000:106). Self-organisation occurs when new patterns emerge in a bottom-up manner in contexts where there is sufficient freedom for multiple interactions among diverse elements and in which organisation is not pre-planned and imposed. Key to this process are what complexity theorists have called "enabling constraints" limits to endless possibility, in the form of a few simple rules or boundaries around which the interactions may develop. However, rules need to allow sufficient flexibility for self-organisation and continual adaptation (Schon et al. 2015:59).

A self-organising system is where the individual elements of the organisation have autonomy to organise themselves in a participatory way within an overall framework of the goals, incentives and values of the organisation and can thereby learn and change as suggested by Turner and Baker (2019:7). Stacey (2000:333) suggests that self-organisation is not a constraint-free form of behaviour, but has to take account of differentials of power, influence, constraint, competition, limits, consensus, differential capabilities and capacities to respond. Hence, school managers can still enable implementation processes and at the same time constrain people's actions.

Self-organisation criticality also suggests that systems and organisations have an inherent propensity, through their dynamic interactions, "to power themselves up" and move towards this critical state, just be the total shipwreck of chaos (Turner & Baker, 2019:23). In education this sounds remarkably like the intensification thesis Morrison (2002:35) and the experience of many schools, where pressure builds on the system until that system explodes, staff leave or are on a stress-related absence; senior managers depart; new management structures are brought in for failing schools and new practices ensue.

Sammut-Bonnici (2014:2) argues that informed by complexity theory, schools should be regarded as self-organising, complex emergent, non-linear organisations, within which different forms of differentiation occur (horizontal, vertical, spatial). An example of a self-organising system is a flock of birds. The formation is formed by the subconscious rules followed by each bird such as maintaining a fixed distance from its neighbour. The result is a configuration that seems to have its own life, which is capable of moving in harmony without a leader or external control. Complexity theory sees the future as uncertain and emergent and the school as a tangle of micro-politics which affect the directions of development. Morrison (2002:44) further argues that the school manager's task becomes the management of micro-politics and of moving the members of the school from a competitive, secretive, isolationist and procedures-driven mentality to a collaborative, interdependent group and team-based network, with devolved decision-making and its accompanying responsibility and accountability. Collaboration of members is reinforced in the Agile Manifesto which prioritises a customer by engaging him or her throughout the development process. This makes it easier for development to meet the needs of the customer (Schon *et al.*, 2015:63). The same engagement of stakeholders can be done by the CDU in curriculum reviews implementation. Such engagements ensure the implementation of curriculum reviews meets the needs of the learner and the society in which they live. To achieve this is a matter of commitment and group development, in which motivation, incentives and rewards play an important role.

The self-organising school is built on units, (subject groups, and heads of department, school management) which are autonomous networked and connected, with rich communication. Within different components of organisations, the key feature of the organising complex institution is interdependence. People fulfil a range of different tasks in schools; they sit on different committees and teams. The major task of the school manager in the implementation of curriculum reviews therefore is to attend to relationships and interpersonal communication, teamwork and the fostering positive communication within the network (Morrison, 2002:50).

Morrison (2002:53) identified three stages of group self-organisation stage.

Stage one: The formative stage is characterised by testing and dependence. Members discover the boundaries of acceptability in the group by developing interpersonal relationships. Orientation to task is minimal. Robins and Finley (1998) cited in Morrison (2002:53) suggest that at this stage, the team faces the *critical decision of deciding how to decide*. The school

manager's task becomes one of moving the group towards establishing positive interrelation in order for consensus on 'deciding how to decide' to emerge and for really developing trust between participants. The school manager organises meetings with heads of departments and subject teachers in order to build confidence and positive relationships in the implementation of curriculum review.

Stage two: The storming stage reflects that the barriers of politeness fall in the group, hostility and intra-group difference surface, that is, trial by fire. Emergence for self-organisation can be painful; stress is high, and the school manager's role therefore should be about conflict management and stress management and reduction. Storming should be seen as a positive sign rather than a problem, for it suggests that the individuality of people is emerging and the nature of power in the group (or indeed its leadership) is becoming important.

Stage three: The naming stage is characterised by the development of group feeling collision and consensus, i.e. self-organisation. Cohesion and consensus then are achieved through the surfacing and working – through of disagreement and conflict rather than imposed, 'contrived collegiality' (Morrison,2011:145). Differences between participants are accepted and commitment to the group's success is strong. Participants focus their emotional energy less on disagreeing with each other and more on working together collaboratively to complete a task. Here, at last, are the beginnings of task achievement in self-organisation. The school manager works to reduce competition and promote teamwork in the implementation of curriculum reviews. Where there is competition, chances are there that we miss the target or the goal but where there is teamwork, there is sharing of same vision which leads to successful implementation of curriculum reviews. A complexity view suggests a form of distributed leadership that does not live in a person but rather in an interactive dynamic, within which any particular person will participate as leaders or a follower at different times for different purposes (Lichtenstein *et al.,* 2006:3).

No individual agent or group of agents determines the patterns of behaviour that the system as a whole displays (Stacey 2000:106). Complexity theory challenges curriculum reviewers to act in the knowledge that they have no control, only influence. They can advocate and aspire, but they cannot predict. Implementation of curriculum reviews cannot be dictated hence it has to develop

in an organic manner. Implementation of curriculum reviews has to emerge from a feeling of ownership by the implementers. A complex view suggests a form of distributed leadership that does not lie in a person but rather in an interactive dynamic, within which any particular person will participate as leader or a follower at different times and for different purposes. (Lichtenstein *et al.* 2006:3).

Every curriculum review we introduce is a difference around which the system self-organises (one possibility is that the system effectively 'absorbs' the difference i.e. it has no effect in practice). Because systems self-organise around difference, a small change can have more than local effects. We cannot determine how the system self-organises to these differences, we can only anticipate what might happen and attend to what happens in practice. Predictions of the effect of curriculum reviews are, if based on 'linear' thinking likely to be disappointed. While there is a blueprint, actual implementation depends on the conditions that find themselves in (Morrison 2011:147).

2.5.3 Communication

Communication is central to complexity theory. According to Schon et al. (2015:61), significant open-minded and lateral communication must replace vertical or bilateral forms of communication, in which directions, decisions and instructions descend from on high in a hierarchical bureaucracy and information ascends to the top of the hierarchy – the nature or content of communication are different. Complexity theory suggests that, in a networked structure for self-organisation, communication must take multiple forms. In communication, it is important to value individuals than processes. In the case of individuals, communication is fluid and happens when a need arises. The same criterion is applied in communication processes which are scheduled and requires specific content. Thus, in curriculum review implementation, it is important to value stakeholders than processes since it is the stakeholders who make it happen (Schon et al. 2015:61).

Communicated information is the life blood of an organisation (Chiu & Qiu, 2014:110). The task of the leader is to disseminate information rather than restrict it. Communication is central to effective complexity leadership and the facilitation of change is the facilitation of different forms of discourse, communication, conversation and dialogue (Stacey, 2000; Morrison, 2002:144). Morrison (2002:147) suggests that organisations change when the power relations which are

embedded in conversations change or destroyed and new ones emerge. Freedom, equal opportunity, absence of domination and the emphasis on cooperation, commitment, consensus and higher order thinking skills are the core elements of effective communication. Communication is both intersubjective and respects the agency of participants. According to Turner and Baker (2019:17) the difference between illocutions and perlocutions is this: illocutions are simply 'doing something whilst saying something; whereas perlocutions are achieving something by saying something.' In illocutions we do not know the outcome of the communication or dialogue, the agenda is open. In Haberman's words it is 'action oriented to mutual understanding where 'a moment of unconditionality exists.' Indeed, echoing Senge (1990), Morrison (2002:150) suggests that real dialogue requires the suspension of the assumptions by participants and all participants need to regard each other as colleagues.

A genuinely dialogical communication is open and illocutionary rather than perlocutionary. It does not know its outcomes; they are to be negotiated rather than simply received. The implication here is that illocutions flourish in open, democratic and collegial management systems whereas perlocutions are the stuff of hierarchical bureaucratic management styles. Communication and control mentalities are perlocutionary, emergent; enabling structures are illocutionary (Morrison, 2002:51). The school manager must work to minimise bureaucracy in the implementation of curriculum reviews. This is done to allow the sharing of ideas from different perspectives.

In a vertical organisation, perlocutionary communication from top down is concerned with information in the form of directives, instructions, decisions, policies and commands, communication upwards is concerned with providing information, documentary, reports, opinions and responses. Poutanen, Siira & Aula, (2016:188) suggest that in such a vertical, hierarchical organisation the two channels of communication are kept independent of, indeed isolated from each other, the effects of which are to minimise engagement which, as has been argued throughout, violates a key requisite for self-organisation.

2.5.3.1 The five communication networks

Brown (2000:143), define five communication networks; the chain, the Y-shape, the star, the circle and the all channel mode of communication. For the purposes of this study, the researcher focuses on the circle and all channel communication networks.

2.5.3.1.1 The Circle of communication

The circle of communication is decentralised, distributed and connected from Figure 2.1. One notices here that the size of the black circles is the same; there is no circle larger or smaller than the others, it is a community of equals. However, there are not interstices between the units; communication is only with immediate neighbours (Emmit & Gorse, 2009:76). However, as the message is passed through the system, it can suffer from distortion (Chinese whispers) and the time taken for the message to be fully disseminated can be slow. The circle of communication has some principles of complexity theory which is the theoretical framework guiding the study. Some of the principles include interconnectedness, collaboration, feedback and value interaction which is the theoretical framework guiding this study.

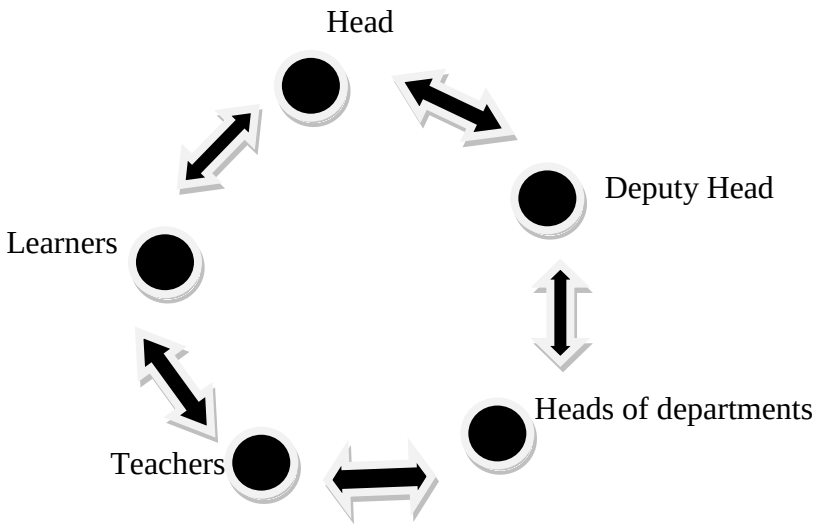

Figure 2.1: The circle of communication (Adapted from Emmit & Gorse 2009:76)

2.5.3.1.2 The all-channels model of communication

The "all channels" model of communication is illocutionary and most suited to curriculum reviews with completely distributed knowledge and all channels of communication being shared (Malone, 1998:152 cited in Morrison 2012:48). It suggests democracy and sharing, the free and complete flow of information. On the other hand, it risks information distortion. All curriculum review stakeholders share information in every direction and to all other parties, regardless of their level as can be seen by the even size of the black spots, all parties are regarded as equals in the communicative process. The focus of this study is aligned with some key principles of complexity theory.

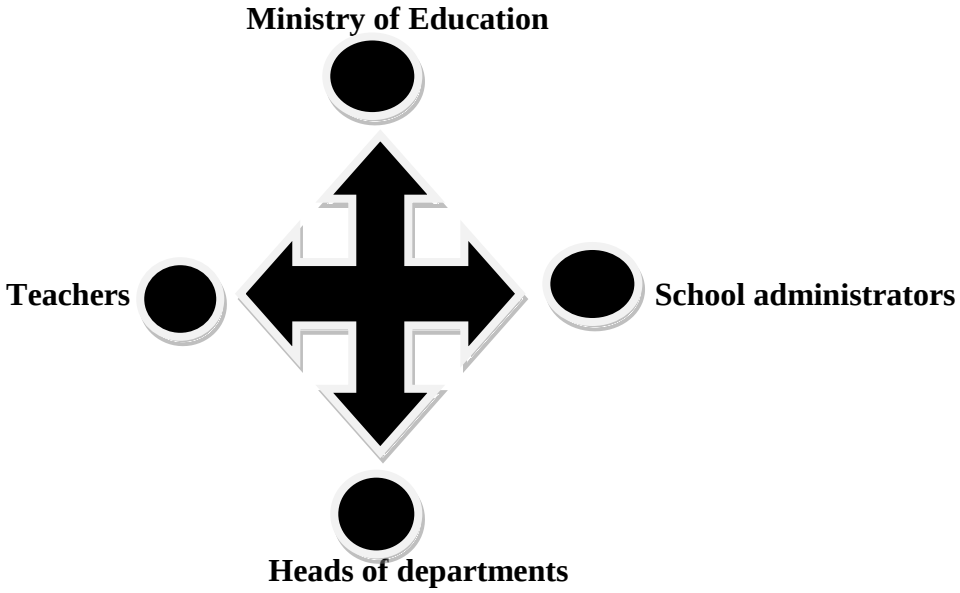

Figure 2.2: The all-channel model of communication (Derived from Malone 1998:152)

2.5.4 Feedback

According to Deogratias (2018:148), feedback is essential if a system is to be in step with itself and its environment. Feedback must occur between the interacting elements of the system (e.g. parts or elements of the curriculum or its subjects). Complexity theorists (Wladrop, 1992; Gilliers, 1998; Morrison, 2002:283) have turned to Hebb's (1949) views on learning here, and, of course, the curriculum entails learning. Hebb's view of learning operates on an associationist or connectedness principle. If X and Y occur together then an association between the two is formed in the brain synapses. If there is recurrence of the association between X and Y then the

strength of that connection is increased into strong 'cell assemblies'; if recurrence is minimal or non-existent then the association decays and dies. If in each time there is a curriculum review and its implementers experience complications and confusion, people tend to associate curriculum reviews with pain and confusion, and this would certainly shape people's reaction to it. People may avoid curriculum reviews by resisting the change associated with it.

Negative feedback brings diminishing returns (Youngblood, 1997:54). Negative feedback is regulatory; it signals deviation from the norm like a thermostat which regulates temperature, causing interventions whenever too much deviation occurs. A thermostat manages to keep temperature in a room constantly switching itself on and off in response to its sensitivity to the air temperature in the room. The implication for curriculum reviewers is to find the appropriate systems, people or resources to act as equivalents to thermostats, sensing the environment and making adjustments.

Positive feedback uses information not merely to regulate but to change, grow and develop. It amplifies small changes (Parker & Stacey, 1994:53). Positive feedback brings increasing returns. Senge (2000:84) cites the example of a baby animal whose eating is voracious and the more it eats the faster it grows: its rate of growth accelerates. If successful implementation of curriculum reviews is to take place through feedback, if connectedness is to work successfully, and if knowledge is to be collected from a distributed, dispersed system, then, an essential requirement must be effective communication systems.

2.5.4.1 Value interaction

According to Stacey *et al.,* (2000:109), the complexity theory perspective shows that change in social setting such as a school depends on a variety of social forces from within and from outside the school. The level of interaction that people engage in is critical. The new knowledge that people's interaction produce as individuals and as group is fundamental. The new solutions that emerge from interaction are essential. The level of ownership of the solutions by the people interacting is a key factor. The degree of critique and questions that people raise significantly influence the process of curriculum implementation. School managers need to value the criticisms and questions that teachers, learners and parents raise about implementation process since they envisage benefits from curriculum reviews. Complexity leadership theory begins to address this issue by arguing that certain interactions in a social network will have non-linear

influence on future interactions within the school system (Lichtenstein *et al.,* 2006:7). Interaction is critical for effective implementation of curriculum reviews and interaction helps to overcome challenges in the implementation process. Interaction helps to develop solutions to curricula implementation challenges.

Stahlberg, Tuominen, Pulkka & Niemivirta (2020:4), stresses that change is about altering both practice and organisation and individuals' perceptions about their roles and responsibilities. This implies that effective curriculum implementation can only be ensured through a change of attitudes, behaviours and beliefs. There is need for school managers to be positive with curriculum so that as leaders of curriculum reviews implementation they may be able to motivate teachers to put into practice the new curriculum.

Change causes people to feel incompetent, needy and powerless if they are not equipped to cope with the new normal. Therefore, developing new skills, creating opportunities for involvement and providing psychological support are essential during curriculum implementation so that people are mobilised to achieve the objectives of the particular change project and feel good about what they are doing. This is in tandom with the first value in the Agile Manifesto which gives value to individuals and interactions over processes or tools. Valuing people more highly than processes or tools is important because it is the people who respond to business needs and drive the development process (Schon et al. 2015:61). In the education system stakeholders are the drivers of effective implementation of curriculum reviews if their inclusion is respected. In such situations, the school manager should reassure curriculum that the objective is to improve the system and not to make people redundant. Drath & Palus (1994:9) proposed that people construct reality through their interactions within worldviews. They do it when they explain things to one another and in general when they interact through thought, word and action.

2.5.5 Small Group

Arrow, McGrath & Berdahl (2000:41), state that a small group meets the description of a complex system in that it is composed of individual members who are diverse, connected through their group membership, interdependent on each other for the work of the group and adapting as the members and the group learn and evolve. If an entity is reduced to smaller parts, the whole can be understood more comprehensively Turner and Baker (2019:11). In the in-

servicing of teachers for the implementation of any curriculum review, the approach should be of small groups to ensure that training is effective.

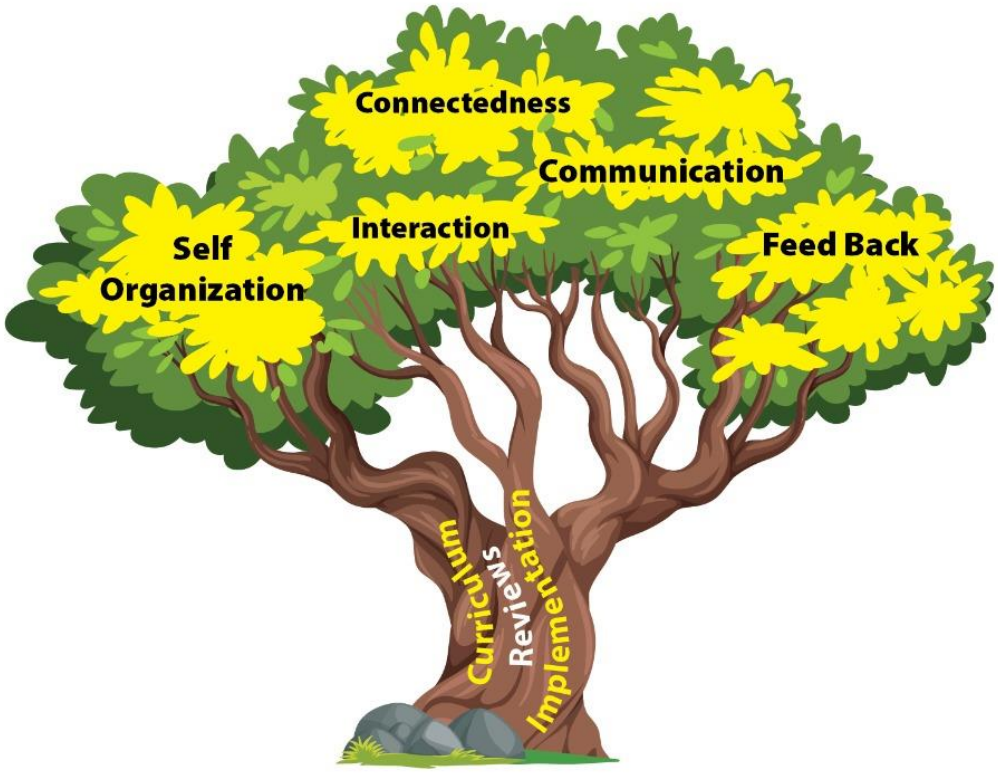

Figure 2.3: Tenets of complexity theory derived from Schon et al 2015:61

2.6 VALUE OF COMPLEXITY THEORY IN THE STUDY

Fullan (2001:42), asserts that complexity theory applies to many aspects from the "micro" behavioural level of school administration-teacher and teacher-learner interactions to the "macro" level of national policy and system change. This implies that for effective implementation of curriculum reviews, there is need to involve and engage teachers and learners since they are directly affected by the curriculum change. Their involvement makes them to own curriculum programmes and challenges them to put planned programmes into practice.

Complexity theory helps the researcher to identify stakeholders in curriculum implementation who are policy makers, school managers, teachers and learners. The theory facilitates a clear understanding of curriculum implementation as a complex process which should not be

approached in a linear fashion (open mind rather than closed mind). The researcher is also made to understand that curriculum implementation requires communication (connectedness), collaboration and interaction (engagement) as key ingredients for successful implementation (Stacey, 2000:106).

Complexity theory thrives on collaboration, interaction and communication, which are key issues in data collection. In view of this research, complexity theory helps the researcher in choosing the research design and research methodology which are in line with the issues of communication, collaboration and interaction. Curriculum implementation involves people and getting information from people who are the participants in data collection hence there will be need for communication, collaboration and interaction (April *et al.*, 2000:34). Complexity theory is very relevant in this study for guiding in selection of literature reviewed, choosing research methodology and data analysis tool. It is also of value in guiding the researcher in proposing the guidelines of a framework of managing implementation of curriculum reviews.

Complexity theory encourages collaboration among stakeholders which is critical in the implementation of curriculum reviews. It guides anyone involved in curriculum implementation in appreciating that curriculum is not linear but a complex process. Collaboration requires distributed knowledge system, in which knowledge is not centrally located in a command-and-control centre or the property of a limited set of agents (e.g. senior managers); rather it is dispersed, shared and circulated throughout the organization and its members. The complexity theory also encourages interaction which produces the network of linkages across which information flows and connects as supported by (Uhl-Bien, Marion & McKeivey, 2007:309).

2.7 RESEARCHER'S ROLE IN USING COMPLEXITY THEORY

The researcher who is guided by complexity theory establishes connections with the participants ahead of data collection. This eases the gaining of access to the research site for data collection. The researcher is informed about the need to accept the participants as the ones who are knowledgeable of the phenomenon under study. The researcher goes to get information from the participants, not to give them information which shows distribution of knowledge. The

researcher must interact or engage with the participants so that they feel free to express their views. The researcher should not appear as an authority but as someone seeking understanding.

2.8 INTERPRETIVE RESEARCH PARADIGM

Hammersley (2013:23), emphasizes that since multiple interpretation is developed among humans' relationship, interpretivist researchers should try to understand the diverse ways of seeing and experiencing the world through different contexts and cultures and try to avoid the bias in studying the events and people with their own interpretations. While diversifying views, the interpretivist researchers do not only describe phenomena and human beings' experience of the phenomena or events they deeply understand human beings in their social context. In addition to that, researchers can conduct research in natural settings to gain the insiders' insight of the research's objects and to provide with more authentic information related to the object of research.

Cohen, Manion & Morison (2011:179), argue that interpretive research paradigm strives to gain the deeper understanding and knowledge of phenomena within its complexity of the context rather than generalise these results to other people and other contexts hence it tends to leave out a gap in verifying validity and usefulness of the research outcomes using scientific procedures. Cohen, *et al.*,(2011:179), purports that interpretivism tends to be subjective rather than objective as a result, research outcomes are affected by the researcher's own interpretation, beliefs, ways of thinking and cultural preferences which cause bias. In adhering to the assumptions of the interpretive paradigm, as suggested by Lauckner *et al*. (2012:16), the researcher allowed the participants to construct meaning of their experiences and events by asking them questions which made them reflect on their experiences. That being the case, this study also rides on the constructivist paradigm which the researcher turns to in the next section. The two complement each other, giving a holistic approach to the construction of social realities, the individual and the society.

2.9 CONSTRUCTIVIST RESEARCH PARADIGM

A constructivist paradigm further requires the use of more personal and interactive methods of data collection as suggested by Lauckner (2012:18). In this study, the researcher used interviews that allowed her to interact with participants during data collection. This interaction made participants responsible for the data that will form the basis of the findings of the study.

Considering that validity is enhanced by multiple sources of data as posited by Adom, Yeboah, & Ankrah (2016:2), the researcher used multiple sources of data which are interviews and documents in order to enhance validity in this study. More so, in pursuit of validity in the constructivist paradigm, the researcher provided information about backgrounds of the participants and the contexts in which they were studied (Lauckner*et al.,* 2012:19). In addition, validity was enhanced by the provision of direct quotations from the participants, who in this study are school managers.

Adom (2016:2), say the constructivist paradigm also gives direction as to the sampling process for the research study. In view of this, the researcher used non-probability, purposive sampling, which is specifically convenience, criterion, expertise and of maximum variation. Lauckner (2012:20) recommends member-checking of the data analysis and interpretation of the data in order to allow them an opportunity to comment on their accuracy, in the light of this the researcher used individual participants to check for accuracy the findings of the study. This was done in order to enhance validity and trustworthiness which are key criteria for assessing qualitative research.

2.10 CONCLUSION

From the above discussion, it can be deduced that this study is couched in complexity theory. That being the case, this study is qualitative and relies heavily on descriptive presentation of data. In the context of this study, complexity theory is a powerful guide to this qualitative research. Complexity theory provides principles which are very critical in suggesting the mitigations of challenges encountered by school managers in the implementation of curriculum review in Zimbabwe. The next chapter reviews related literature.

CHAPTER 3

LITERATURE REVIEW

3.1 INTRODUCTION

The previous chapter addressed complexity theory as the framework guiding this study. Complexity theory has been chosen in the study to conceptualise a framework for mitigating challenges encountered by school managers in the implementation of curriculum reviews. This chapter presents a literature study on mitigating these challenges. The chapter commences by interrogating the concept of curriculum and factors influencing curriculum reviews. A discussion of models of curriculum reviews and an appraisal of different approaches that could be used in managing educational change is made in the light of the theoretical framework and literature study, the chapter also suggests a framework that could be employed in mitigating the challenges which affect successful implementation of curriculum reviews. To wind up, the chapter offers a critical discussion of challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe.

3.2 CONCEPTUALISATION OF THE CURRICULUM

Curriculum is defined as the sum of learning experiences offered by schools (Harris, 1991:70 cited by Kurasha & Chabaya, 2013:56). Learning experiences include academic subjects, for example, science, arts and commercials; sports such as rugby, netball, cricket, and clubs encompassing debate, drama or quiz. Educational trips are also part of the learning experiences.

A curriculum is three dimensional as it takes into account the needs of the learners, the content and the instructional methodology. These three dimensions are usually expressed as the intended curriculum. In other words what is expected to be implemented. It spells out needs of the learners like critical thinking skills, vocational skills and technical skills to be able to fit in the modern society; content as the knowledge that the learners must acquire in the implementation of the curriculum; and instructional methodology as the means to the acquisition of knowledge and

skills by the learners. Instructional methodology may be teacher-centred, for example a lecture and learner-centred for example group work.

Su (2012:154) adopts a more expanded definition when it states that the curriculum is understood as, "*statements of what school learners are expected to learn and be able to do; content which describes what is to be taught organised primarily into subject disciplines or key learning areas; standards which identify the level at which learners demonstrate that they have acquired knowledge and understanding, and stimulus and support materials to assist teachers and learners with regard to assessment."*

According to Mulenga (2018:3), a curriculum provides a road map of what learners should encounter when at school, how they should be assessed and what constitutes expected outcomes. Mulenga (2018:5) further argues that when discussing the curriculum, it is important to differentiate between official curriculum documents, a school's co-curricular activities and the 'hidden' curriculum (Bowles &Gintis, 1976:107) that relates to the way a school is organised and managed. It is also important to note the distinction between the intended curriculum as opposed to what is actually implemented in the classroom and the learning outcomes achieved by learners. Thus, curriculum may be looked at from different approaches which should be clarified if the process of curriculum reviews implementation is to be understood. According to Van den Akker (2003:5), a basic analysis of concerning curriculum review improvement comprises three distinct levels namely; intended, implemented and attained curriculum reviews.

The intended or planned curriculum comprises the ideal, formal or written curriculum which includes an overview of why, when, how and what is supposed to be taught and learnt Kelly 2004:6). The attained curriculum comprises an experiential and learned curriculum. The experiential curriculum includes knowledge and skills gained by the learners as a result of learning experiences depending on how the curriculum is implemented (CIL & CEPNI, 2014:3). One intrinsic effect of the experiential curriculum is the so-called "hidden curriculum" which according to Glatthorn, Boschee & Whitehead (2012:23) is also referred to as the unstudied or implicit curriculum which might be viewed as those aspects of the learned curriculum that lie outside the boundaries of the school's intentional efforts.

The learned curriculum is what learners have really learnt. It refers to knowledge skills and competences gained by learners as a direct result of the teaching and learning process. Malcom (1999:80) observes that what teachers teach is not necessarily what learners learn. The learned curriculum is the learning outcomes of learners in a comparison with the intended curriculum as well as the implemented curriculum.

The concept of curriculum finally takes us to be the conclusion of Doll [Jr]and Gough (2002:46) that curriculum should not be looked at as a linear course to be run but as complex and dynamic web of interactions evolving naturally into more varied interconnected forms.

CIL & CEPNI (2014:2) states that in terms of ideal effects, the intended curriculum is defined as an educational policy instrument that defines the learning that is relevant to society and individuals, but by itself is nothing more than a document that sets objectives, content and expected outcomes. Those who consider the purposes of a curriculum speak in this kind of vein: curriculum specifies what kind of knowledge, skills and values should be taught to learners and why that is so, but it may also specify the desired ways of how learners should be taught. CIL & CEPNI (2014:5) also observes that curriculum documents tend to reflect the cultural heritage of a society.

However, Su (2012:153), defined curriculum as a base document that allows schools and teachers to provide relevant learning programmes for learners. The NCEC adds a concern that in Australia, the term ‘curriculum’ has been circumscribed to knowledge, content and achievements standards only, and this does not align well with common state definitions and has pigeon-holed and restricted the work of Australian Curriculum Assessment and Reporting Authority (ACARA) whose curriculum was framed by learning areas rather than broad educational aims. Yates (2014:177) observes that the role of the school curriculum has changed overtime and has moved in most cases from professional documents aimed at giving some basic guidance to teachers and produced largely by education departments, to outward facing documents, designed for public consumption.

3.2.1 The National curriculum

The National Curriculum provides learners with an introduction to the essential knowledge that they meet to be educated citizens. It provides an outline of core knowledge around which teachers can develop exciting and stimulating lessons to promote the development of learners' knowledge, understanding and skills as part of the wider school's curriculum (Department of Education, The National Curriculum in England, 2013:6). Core knowledge is the subjects that learners learn as part of the curriculum.

3.2.2 The school Curriculum

According to Su (2012:155) a broad definition of a school curriculum involves official curriculum documents that detail what is to be taught which includes knowledge, skills, and values and how it will be assessed through practical or written examinations. Such documents also generally include a rationale and provide some guidance about preferred approaches to teaching such as learner-centred teaching, learning and assessment which includes formative, continuous and summative evaluation and how particular subjects or areas of learning are structured for example junior secondary, ordinary level and advanced level.

The school curriculum also entails additional co-curricular activities such as debate, sport, drama, music, school camps, community engagement and other activities in addition to the official curriculum (Stobie, 2019:5). When discussing curriculum documents, it is important to differentiate between:

- The intended curriculum the 'road map' detailing what should be taught and how it should be assessed.
- The implemented curriculum – how the intended curriculum is being implemented in the classroom and the school
- The attained/achieved curriculum – what learners actually learn in terms of outcomes as a result of the intended and the implemented?

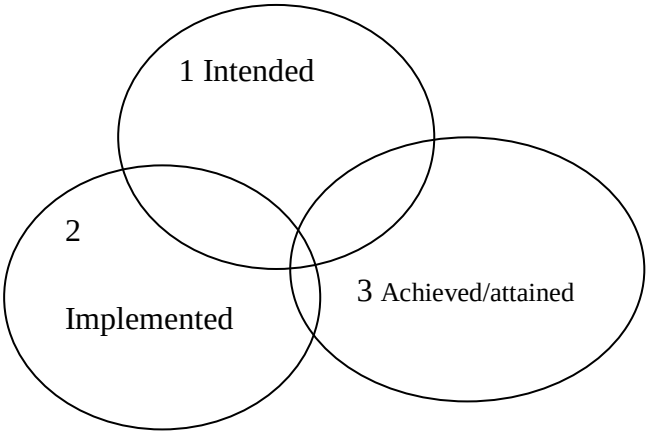

Figure 3.1: Phases of the curriculum adapted from Stobie (2019:5)

This diagram summaries what Kerr (1999:100) says about curriculum implementation which is the reality of the school curriculum where there is the intended, the implemented, and the achieved/attained. The intended curriculum is a product of a curriculum review which is necessitated by a number of factors.

3.3 FACTORS INFLUENCING CURRICULUM REVIEWS

Curriculum is viewed by many as a remedy to societal problems. Many countries undertake curriculum reviews in order to provide such solutions. Different factors exert pressure on governments to undertake curriculum reviews and these range from economic, political, social and technological factors.

3.3.1 International influence

Countries copy from one another in the process of reviewing their curricula. According to Chisholm (2005:86), Curriculum 2005 in the South African setting is a form of outcomes-based education curriculum reform phenomenon with adaptations and local responses in South Africa. The origins and evolution of C2005 can be traced to competence debates in Australia, New Zealand, Scotland, Canada and limited circles in the United States (Cross, Mungadi & Rouhani, 2002:176 cited in Chisholm 2005:86). Kurasha & Chibaya (2013:7) postulate that membership

to various international organisations has influenced curriculum review. Membership to the Commonwealth, United Nations and its specialised agencies like UNESCO, UNICEF and UNFPA and the Organisation of African Unity (African Union) has led to the introduction of programmes such as HIV/AIDS Education. Environmental Science Education, Culture of Peace, Reproductive Health Education and Population also found their way into the curriculum. Where donors have had interest in certain areas of the curriculum, they have managed to influence governments to institute curriculum reviews. (The Zimbabwe National Commission for UNESCO, The Ministry of Education, Sport and Culture and Ministry of Higher Education and Technology, 2001:20).Curriculum review is done to meet the needs of the global village. With globalisation there has been increasing pressure on the education system to move towards the use of new Information and Communication Technologies (ICTs), invariably leading to the 'expansion' of the curriculum where new ICT-related subjects have come into vogue.

3.3.2 Entrepreneurship

Funmi (2017:3) contends that the small entrepreneurial firm is often the driving force of economic development as a result of its inherent diversity and flexibility. The fact that they account for a large portion of the gross domestic product and employment in the Zimbabwean situation, determines the direction of the curriculum reviews. Learning and the opportunities to learn are at the centre of entrepreneurial practice as learning influences the recognition of opportunity and the development of soft skills, processes and cultures that are all necessary in order to sustain innovative practices. Chinonye and Mosunmola (2014:2) suggest that studying both the nature and conditions of learning in the context of the entrepreneur is essential due to changing trends. The Zimbabwe Herald newspaper of 9 June 2017 stated that the Minister of Primary and Secondary Education (MoPSE) in Zimbabwe, Lazarus Dokora, said the school curriculum review was undertaken as part of efforts to strengthen a needs-based education system to make education contribute to the empowerment vision of the Zimbabwe Agenda for Sustainable Socio-economic Transformation (ZIMASSET). According to the Zimbabwe *Herald* newspaper of 9 June 2017, the education system of Zimbabwe, as part of human capital development strategy priority, responded to the needs of ZIMASSET-social services and Poverty Eradication cluster. This implies that through curriculum reviews, the Zimbabwean government intends to provide holistic education to all learners and develop the whole child socially, physically, intellectually, creatively and emotionally.

Changing trade patterns influence the productive possibilities of the economy (Gamede & Uleanya, 2017:2). Like parents, employers also have an input in curriculum reviews because they know the curriculum that is marketable in the world of work. It is what industry and commerce want that must be incorporated in curriculum reviews. If a learner graduates without the requirements of industry and commerce, they become a misfit and thus jobless. The Ministry of Primary and Secondary Education certainly follows the demands of commerce and industry when reviewing curricula, otherwise they would produce large numbers of unemployable graduates (Gruba, Sonderrgaard & Zobel, 2004:3).

However, the influence of entrepreneurship on curriculum reviews is heavily criticised by Marxists. Marxist sociologists Bowles and Gintis (1976:132) argue that the main function of education in capitalist societies is the reproduction of labour power. The Bourgeoisie require a workforce that is hardworking, accepts authority, and won't react if they are exploited, and the main function of the school in capitalist societies is to indoctrinate children into these norms and values of the workplace.

The education system does this through the hidden curriculum where learners learn things through the experience of attending school, rather than the stated education objectives in the formal curriculum thus Bowles and Gintis say that work casts a long shadow over school. At school learners are motivated by the qualifications they receive at the end of school rather than the joy of learning itself while at work, workers are motivated by the wage packet at the end of the month rather than the joy of working itself (Bowles & Gintis, 1976:10-11).

Thus, capitalists require schools to teach people not to be inquisitive, to just learn what is prescribed and put up with boredom. Learners are groomed to work hard now (study) in order to achieve grades at the end of the year. There is no reward in education for those doing their own thing because this is not what future employers require. The fragmentation of subjects at school correspondence with the fragmentation of the workforce in later life, workers specialise in particular tasks in the office or the factory, without having an appreciation of the whole and this makes workers easier to control(Bowles & Gintis, 1976:173).

Globalisation has provided a rationale for restructuring the education systems worldwide, mainly to meet the need for workforce that is equipped with not only the traditional discipline

knowledge and skills but also a broad range of generic capabilities. The restructuring has in fact resulted in a shift that emphasizes equipping the learner with 'operational competence' for the world of work, and a trend that privileges the discourses of privatisation, marketisation, commodification, managerialism and performativity. Globalisation, with its technological demands, requires what Waks (2003:397) referred to as the "knowledge worker." This is a worker who in globalisation terms has the capabilities of knowing how to access information to add value to an organisation; is time-sensitive and works to deadlines on specific projects (Waks, 2003:397).

Conforming to Sargent, Byrne, O'Donnell & White (2010:10), the most cited reason for curriculum reviews (Australia, British Columbia, Canada, France, Germany Hungary, New Zealand, Northern Ireland, Scotland, Singapore, Spain, Kentucky and Maryland in the USA and Wales) is to 'modernise' the curriculum. This is reinforced by the Saber-tooth curriculum which says that education is of no value if it is not meant to serve the needs of the society. The curriculum, which is the engine of education, according to the Saber-tooth curriculum, which was meant to educate learners in the art of eliminating threat to tribal safety must change as society's needs change. This makes education utilitarian and therefore the curriculum should be utilitarian in nature that is, satisfy the needs of the society (Ward, Doutis & Evans, 1999:457).

Todnem (2005:370) say people need change to improve their work. They pointed out that factors that drive change are both external and internal forces that constrain managers. These also bring about the need for change. In educational institutions, changes are imposed from outside or motivated by internal pressure. The ultimate goal of change is to make practice better or more effective (Shen, 2008:74).

3.3.3 Technological advancement

Curriculum reviews are necessitated by technological advancement (D'Ortenzio, 2012:28). The introduction of computer education in schools was as a result of the advent of information and technology. Technological advancement may be related to pedagogy such as the use of power point and open learning where learners can tune in to the lesson and access information via satellites. They may be advances that are unrelated to pedagogy, but which influence what counts as knowledge. Due to advancements in technology, the Zimbabwean school curriculum should go in line with what is happening elsewhere today (Dziwa, Chindedza & Mpondi,

2013:314). The use of computer technology, global communication, out-sourcing of services and new methods of shopping via cable, satellite and the internet influence curriculum reviews.

Due to rapid technological and social developments over the last three decades, access to information, knowledge, especially through ICT, is now virtually unlimited. This has resulted in greater access to archives of information and knowledge hubs worldwide (Sunday Mail, September 4, 2016). The knowledge sector has increasingly become an important means of wealth generation, hence the need for regular curriculum renewal in order to maximise on opportunities. This virtually unlimited access to information has created new context and demands for teachers. Teachers are no longer seen as the sole sources of knowledge and information. They are now expected to help learners develop competencies like computer literacy to access and process information independently and responsibly, as well as to develop broader life skills such as problem-solving skills (Purnama 2015:362).

3.3.4 Political influences

Changing political contexts are a powerful force in curriculum reviews as suggested by Amutabi (2003:46). What it implies is that independence from the colonial administration from the late 1950s to the 1970s led to curriculum reviews in the new independent countries like Nigeria Zimbabwe and South Africa among others. This suggests that revolutions do not merely make curriculum reviews possible; they require it in order to bring education into harmony with new institutional and ideological framework (Amutabi, 2003:46). The curriculum is considered as an instrument of state rather than personal development and this was the case with countries like China where Kennedy (2013:4) says when China became socialist, there was need to change the curriculum in pursuit of nation building. The education system had to change in order to align it with the new ideology. This is in tandem with Weaver (2011:46) who says, Tanzania changed its curriculum in order to pursue a national agenda.

According to Joseph (2015:18), it is a political reality that some people have greater power than others in making curriculum review decisions, educators and curriculum review planners must negotiate to survive in such an environment. The curriculum therefore becomes an ideological apparatus that is caught up with values, with what is worthwhile, beneficial and useful to teach the young and with how best to distribute education resources both human and material. The state has legal responsibility for provision of suitable education for all learners including

minimum standards for the institution. Chisholm (2006) further argues that any curriculum in any country is directed by the political ideology. The ideological stance of the country influences curriculum reviews. This is because education can be used to further political ideologies. This in turn, influences power structures in the society, any changes in policies or political ideologies influence the education system. As a newly independent state, Zimbabwe needed to craft a national curriculum that reflected the interests of the people of Zimbabwe. This was reflected in the Africanising of the school curriculum as stated by Mavhunga (2008:30).

3.3.5 Social Transformation

Curriculum change is also driven by social transformation (Luo, 2011:42). Weaver (2011:48) says that curriculum reform in China since 1996 has been driven by the social transformation of China. Weaver (2011:48) also says the introduction of "African socialism" or Ujamaa by Nyerere in Tanzania necessitated curriculum change. Luo (2011:14) further argues that the economic demands and the social concerns demanded "reforming learners' ways to learn," which formed the core of the curriculum review. The economic demands which compelled the curriculum reform in China were critical shortage of the human capital of China in preparation for increasingly fierce competition of the global knowledge-based economy (Kennedy, 2013:6). A knowledge-based economy requires the workforce to gather information, analyse the information, evaluate the information and reach informed conclusions which are critical to the development of business in the world of competition (Waks, 2003:388). The workforce's exit profiles would have been as a result of successful implementation of curriculum reviews.

The educational system for many countries has been undergoing fundamental reforms, especially in recent years, to respond to the trend of globalization and to meet the ever-changing expectations of the respective communities in their development into knowledge-based societies (Law, 2010:64).The impetus for the revised (2007) New Zealand curriculum was a recognition, following curriculum 'stock takes' in 2000 and 2002, that continued social change necessitated an update to ensure that the revised curriculum provides a clear statement of what is deemed to be important in education for today's society and to prepare learners for future. Similarly, the review of the Northern Ireland curriculum and assessment framework capable of 'meeting the changing needs of learners, society and the economy; had the confidence of teachers, learners, parents, employers and the wider public; widened educational opportunity and improved learner motivation and achievement.'(Sargent, Byrne, O'Donnell & White 2010:10)

The curriculum in Zimbabwe since colonial times tended to be overly academic (Commission of Inquiry into Education and Training (CIET), 1999:232). However, the trend is to pay increased attention to competence development, that is, learners' ability to mobilise their knowledge, skills and attitudes independently and creatively in order to address different challenges. There is, therefore, need to constantly adjust the curriculum to meet the imperatives of the times. This is more so given that Zimbabwe is an agro-based economy. It is against this background that government took a decision to carry out a curriculum review in order to ensure that the curriculum is responsive to the socio-economic needs of the country (Purnama 2015:363).

Education curricula can never remain relevant and perfect for all ages as society changes (Munikwa, 2011). Globally, the education system as a vehicle of social transformation is undergoing a period of transformation to suit the prevailing societal interests, development, needs and aspirations by enhancing learners' achievement. This implies that the learning situations should be inclined towards the goings in the society. Hence it is imperative that the curriculum should be designed in such a way that the learner is considered as a key variable.

3.3.6 Epistemological influence

According to Dziwa, Chindedza and Mpondi (2013:316) knowledge is a powerful agent for curriculum reviews, frontiers of knowledge are ever expanding. Curriculum reviews should accommodate new funds of knowledge. In Zimbabwe, curriculum reviews have been instituted in response to commissions of inquiry, task forces and various stakeholders. In Zimbabwe, commissions of inquiry are usually set out to look into curriculum issues at all levels of education. One such commission was the Nziramasanga Commission of 1999, set up by the government through an Act of Parliament to look into the education system and make recommendations for any curriculum change required (Mawere, 2013:1078). The commission recommended an outcomes-based curriculum which is broad-based in terms of subjects offered and which focuses on learning areas, employment related skills and other essential skills to be developed across the curriculum.

3.3.7 Educational Crisis

Sharma (2010:23) argues that every curriculum activity is stirred up by an educational crisis. In African countries, for example, it was found after independence, schools were not producing people who would be productive. It was also found that the orientation of schools in general bore no relation to the demands of the newly independent nations. Even today people still question the quality of Education in Africa which provides unemployment graduates from both Secondary and Tertiary educational institutions, (Golubu & Hayat 2014:1). The point being made is that people everywhere see society changing and possibly evolving in a certain direction. Society may be moving from peasant agriculture to industrialisation and new subject areas may be emerging. All these and other changes make it inevitable that the curriculum will change. Curriculum reviews are also triggered by the need to make the curriculum relevant to individual, societal and national needs. National needs can either be political, social or the need to produce own skilled manpower (Dziwa et al. 2013:316).

There has been an enormous change in educational theory, and practice in the last three decades. A discussion on the provision of basic education leads to a reconsideration to some of the emerging trends in education. Developing nations, like any of their counterparts elsewhere, must necessarily invest in education in order to embrace benefits from pedagogical strategies such as 21st teaching methods like discovery method which promotes critical thinking and curricula shifts like moving from teaching to learning, from memorisation of information to analysis, synthesis, evaluation and application of information (demonstration). The evolving education trends in-country and globally inform the nature of the curricula review (Curriculum Framework for Primary and Secondary Education, 2015:10).

3.3.8 Acquisition of Equity and Excellence

An important driver of curriculum review is a desire, for curriculum review to contribute towards improved equity and excellence in education (Australia, Hungary, Scotland, Singapore and Spain) (Sargent *et al.,* 2010:9). In the context of issues of under achievement of indigenous Australians and of learners from low socio-economic backgrounds, the New Australian National Curriculum, for example is designed to be accessible to all young Australians, regardless of their social or economic backgrounds or the school they attend, and to provide differentiated levels of

support to ensure that all learners have a fair chance to achieve those expectations. Schleicher (2014:30).

Excellence and standards are also key motivators for the most recent (2008/2009) curriculum revisions propped in Japan. The revisions make a turnaround from the country's recent 'education-with-latitude' policy in the wake of reported declines in learners' academic ability. They follow a report published by the Advisory Central Council for Education which called for increased teaching of basic knowledge and skills, and recent results in domestic and international surveys of learner attainment which suggest that there is room for improvement in learner academic ability (Sargent *et al.,* 2010:11).

According to Curriculum Framework for Primary and Secondary Education (2015:11), Zimbabwe's participation in a new global economy is premised on an education system with a Science, Technology, Engineering and Mathematics (STEM) bias. In order to empower Zimbabweans for effective citizenry and employment for the 21st century, a great responsibility falls on the education system to educate well and to educate all. The government had to review the curricula for schools to engage learners with renewed focus on STEM so that they can thrive in a knowledge-based economy and society.

3.3.9 Coherence and Inclusivity

In accordance with Haug (2017:208), a primary objective of the curriculum for Excellence review in Scotland, for example was to ensure that the new curriculum is 'coherent and inclusive', and the Northern Ireland Curriculum review aimed to provide improved balance, coherence and at each key stage. In the Hungarian system, curriculum coherence, competencies and equity are key issues in education which are factored into the design and development of the National Core Curriculum (NCC). Similarly, in South Africa, curriculum documentation aims to emphasize the 'logical progression between grades', whilst in France ensuring the consistency of the curriculum framework across phases was a major influence in the *SocleCommun*reforms. In Wales a review for curriculum for learners aged 8 to 14, which began in 2009, has uncovered issues related to coherence in teaching and learning for this age group.

A coherent philosophical value system is the hallmark of a sound education system. Such a system orients learners towards national development and the improvement of their own surroundings and communities. The Presidential Commission of Inquiry into Education and

Training (CIET, 1999: 298) in Zimbabwe underscored the need for the education system to be underpinned by a philosophy of *Ubuntu/Unhu/Umunhu*. Consequently, such a system should offer learners' experiences and opportunities that nurture self-actualisation, promote a sense of community and patriotism hence the need to renew the curricula.

This section highlighted the key factors influencing curriculum reviews. The factors which influence curriculum review lead to the decision to review the curriculum. Once the review has been completed, the next step is to implement the curriculum review. Implementation of the reviewed curricula is guided by tested models of implementing curriculum which are discussed in the section that follows.

3.4 MODELS OF IMPLEMENTING CURRICULUM REVIEWS

In curriculum reviews, different models are deployed. Emesin, Ogah and Eze (2013:41) define a model as a small scale reproduction or representation of something (Stenhouse, 1975:89 cited in Emesin et al. 2013:14) sees curriculum model as a theoretical framework that tends to represent a system or set of related concepts or events in a way that depicts surface features, and highlights essential organisation. In summary, a curriculum model can be defined as a laid down framework systematically followed in the achievement of organisational goals. Ivowi (2008:6-7) posits that curriculum review models seek to provide answers to some basic questions which relate to building and restructuring of some education programmes. The questions according to Ivowi include the "why," "what," and "how" of education. The curriculum review models developers are concerned with what do we need to alter. How do we go about the implementation process?

3.4.1 The Social Interaction (S.I.) model

The social interaction model lays emphasis on the diffusion of an innovation through a social system (Patel, 2013:3). Anaele (2008:78) states that this model involves the transmission of knowledge by individuals along informal networks of professional colleagues and friends. He reiterates that the S.I model is subject to the influence, judgements and opinions of people

around. He emphasizes that the model relates to the processes of diffusion of new ideas, practices and products.

Patel (2013:2) makes it clear that the first stage of this model creates awareness of a need which will motivate the interest of the social group involved and further explains that the group involved will move to study the proposed change closely (evaluation) and then try it out and if it works, the innovation will be adopted. From their own point of view, Mkapa and Izuagaba (2004:194) posit that the S.I. depicts a process of planned or unplanned social interaction to spread the new ideas or practices. They describe the unplanned process as the spread of new ideas or practices through contacts between and among teachers within a school, among schools, between teachers and supervisors among others.

As a planned social interaction, the authors state that the diffusion process could be initiated through courses, conferences or workshops organized by agencies. These activities according to them provide the initial supports in-service training required. At the stage of dissemination, the agencies plan/implement transmission strategies and this can be done through organising courses, demonstration and consultancy services (Balacheff 2017:178). Balacheff (2017:179) say that in the social interaction model, teachers are directly involved in some social network so that they can run with the innovation vision. The S.I model is flexible because social interaction occurs in diverse forms, formally or informally, so it gives room for more diverse ways of disseminating and adopting an innovation and the process is natural as it deals with the formal communication pattern of mankind. Social model aligns with value interaction in the sense that it is subject to the influence, judgements and opinions of people around. Value interaction is a key tenet of complexity theory which stresses that the new knowledge that people's interactions produce as individuals and as a group is fundamental.

3.4.2 The Problem Solving (P.S.) Model

This model was earlier developed by Lippit; Watson and Westley as reported in Firend (2014:5)). The problem-solving change model also called Need Reduction Model is regarded as a user-friendly model by Havelock (1971) who further worked on it. The P.S. model, as stated in Trubowitz (2000:166), rests on the assumption that an innovation is part of a problem-solving process which begins with a need that is translated into a problem. The problem needs to be diagnosed and solutions proffered. This implies that once a need is felt, it is instantly perceived

as a problem that needs to be solved. In the process of searching for the solutions, alternative choices are provided, and the best is selected to solve the problem. This last stage according to Havelock is the adoption of solution. Emesin*et al.,* (2013:45) echo that the model is user friendly because the user is the initiator rather than the recipient of the change. They posit that an external person or group coming in the process serves in consultative or collaborative capacity. The bottom up approach used in problem solving is in tandem with the communication principle of complexity theory. The implementation of curricula review is a complex process which cannot be decided by a group of individuals hence the need to involve curriculum.

Trubowitz (2000:167) reports that, since teachers who implement the said change or innovations are active participants, they are likely to be more committed in their implementation. The model is so flexible that it can apply to various aspects of the curriculum like teaching methods and materials. As the innovation is school based, it is designed in such a way that it will be able to meet the needs of the school in question. This model gives schools the autonomy to organise themselves in the implementation of curriculum review as derived from complexity theory.

3.4.3 The Linkage Model

The model tends to integrate the three models namely, Research Development and Diffusion (RDD) the social interaction (SI) and the problem-solving (PS). Anaele (2008:72) reiterates that the linkage model unifies and integrates the three preceding models by linking procedures and agencies in a harmonious way. This could be done by connecting agencies that can offer resources to users and link them up with more remote resource agency, consultancy or information about other users with related experiences or interests.

The issue of relationships or connectedness (which is a key feature of complexity theory) is of paramount importance in linkage model (Morrison, 2003).The implementation of curricula reviews should consider connectedness as critical; this connectedness or involvement of all stakeholders ensures successful implementation of curriculum reviews.

Emesin*et al*., (2013:46) added that the linkage model draws upon the strengths of the first three models and tries to overcome their weakness. The authors analyse the work of Hoyle (1993) concerning the linkage process as it operationalises the link between the school and the various specialised/ centralized agencies. That the agencies' work is to help locate useful human and

material resources that will be needed to solve any problem in the school setting. Conforming to Watson, Graham & Thorn (2012:5) the linkage centres could be in the form of Professional centres, Resource Centres, ICT centres, Examination Centres, among others. The authors see these agencies as linkage points between the national agencies of curriculum development change and innovating schools, to provide consultancy services, and to offer in-service training for teachers as end users. The highlighted models of curriculum reviews have been useful in some countries as explained in the following section.

3.5 CURRICULUM REVIEWS

In accordance with Rao (2010:243), curriculum review is the process through which we ask and answer questions about effectiveness of a curriculum and the extent to which it enables teachers to support learners in achieving curriculum aims. It is a renewal process which is regularly carried out to continuously adjust and to improve existing education practices in the light of emerging national and global socio-economic trends. Curriculum review involves gathering, analysing and reporting information about how the curriculum is experienced by learners, teachers, principals, parents and others, in order to improve it. It is the key to ensuring that a curriculum remains responsive to the needs of its intended beneficiaries (principals, teachers, parents and ultimately learners).

3.5.1 Curriculum reviews internationally

3.5.1.1 England curriculum review

In consonance with the England Department of Education (2013:6), the national curriculum provides an outline of core knowledge around which teachers develop exciting and stimulating lessons to promote the development of learners' knowledge, understanding and skills as part of the wider school curriculum. The Secretary of State for Education is required to publish programmes of study for each national curriculum subject, setting out the matters, skills and processes to be taught at each key stage. Schools are free to choose how they organise their school day, as long as the content of the national curriculum programmes of study is taught to all learners.

The coalition government of 2010 began extensive reform of the national curriculum in England in 2011. The publication of draft programmes of study in June 2012 attracted a mixed response. An article in *The Guardian* reported that Prof Andrew Pollard (a member of the expert panel) had described the proposals as 'fatally flawed' in showing insufficient consideration of the needs of the learners and described the programmes of study as 'overly prescriptive'. In response, the Department for Education (DFE) said that the proposals would not act as a 'rigid' 'straitjacket' for teachers and that flexibility would remain for schools in how they covered the content as report by the Department of Education and skills (2005:17).

Professor Robin Alexander of the Cambridge University and Director of the Cambridge Primary review criticised the Government for what he saw as 'citing selectively and tremendously' from the international evidence and ignoring important contextual and cultural factors, in building the case for reform (Roberts, 2017:9). A press release from the National Union of Teachers (NUT) said that much of what was proposed was already covered in primary schools but that there was a risk of creating 'a task oriented curriculum' which would simplify the learning process and due to its inherent inflexibility, make it impossible for many learners to achieve in the time and space they need (James, Oates, Pollard &William (2011:4).

Roberts (2017:13) further presents that the Association of School and College leaders (ASCL) and the National Association of Head Teachers (NAHT) gave more mixed responses. ASCL welcomed the emphasis on English, Maths and languages at primary level but criticised the Government for not 'seizing the opportunity' to slim down the curriculum and for failing to make clear at this stage what the proposal in respect of the Secondary curriculum were likely to be. NAHT welcomed what it saw as a learner Science curriculum, positive aspects of the English curriculum, assurances of no further statutory testing (SATs) and concentration on what should be taught as opposed to how. The union, however, thought that schools would need 'time and support' to deliver the curriculum's 'more demanding' programmes and judged that much of the content was in fact not new.

An article in ***The Times*** of 13 June 2012 argued that Gove had been 'unfairly derided' for the new primary school curriculum which in fact should be praised for the level of ambition. Similarly, in an article for the ***Finance times***, commentator Stephen Robinson hailed the reforms for putting proper content....back into the curriculum. On 20 March 2013, ***The Independent***

published a highly critical letter signed by a large number of academics about the curriculum proposals. The letter's authors criticised what they saw as the new curriculum's "endless lists of spellings, facts and rules" and "mountains of data" which would not develop young children understands and expected "too much". Michael Gove responded to his critics in a strongly worded article for the ***Daily Mail*** on the 23 March 2013 (Roberts, 2017:10). It is important to note that there is a significant group of academic commentators who have themselves expressed concern about the dangers of downgrading the importance of knowledge in the curriculum. Most notable among these were the 'social realists'; who point out the dangers of what they termed 'technical-instrumentalist' curricula (Brundrett, 2015:54). This critique has two main dimensions (Schmidt & Prawat 2006:650). Firstly, concerns about the shift from the specification of disciplinary knowledge to an emphasis on generic skills and competencies. Secondly, there is weakening of the relationship between knowledge and academic discipline because of the erosion of the distinction between academic knowledge and subject knowledge.

The crucial construct here, however, is not the nature of the debate but the fact that there is little, if any evidence that the Secretary of State drew on such complex theorising in making his decision to enhance the role of knowledge in the English curriculum. On the contrary, the government's approach to curriculum reform refused to acknowledge that there was any legitimate alternative to what they proposed and rejected the notion of dialogue and debate. Indeed, Michael Gove and the Minister for schools, Nick Gibb who had sought to promulgate the reform of the curriculum, based their approach on a fundamental commitment that, 'knowledge is the basic building block derived for a successful life,' a conception and commitment derived, largely from the work of the influential US cultural theorist E.D Hirsh (Brundrett, 2015:55).

According to Roberts (2017:12), the review of the National curriculum, which commenced in 2011, having been prefigured in the 2010 white paper, may be seen as part of a broader experiment in English education that seeks to address a perceived crisis with regards to standards in schools. This view posits certain key propositions, including notions such as the need to focus on knowledge rather than skills in the curriculum. Many of the key policy ideas are translated from similar perspectives in the United States where they have been tested but by no means proved efficacious, even in terms of the limited aspirations that they promote such as increasing achievement in national tests. Nonetheless, the revised curriculum has been implemented by

teachers in schools with surprisingly little protest, an attitude quite possibly born out of exhaustion from multiple and overlapping process of innovation and change.

3.5.1.2 Japanese curriculum review

In Japan, the central government proposes concepts, general objectives and the direction of education. Regional governments and boards of education take part in the implementation of concepts through supplementary policy direction. Schools work closely with boards of education to bring the proposed changes into a classroom (Kimura &Tatsuno, 2017:12).

Pursuant to Cave (2011:145), over the last 20 years, however, government educational reforms have set out to change the landscape of teaching and learning in elementary and junior high education. Widespread concerns were voiced that Japanese education was too inflexible, didactic and uniform- too focused on instilling knowledge and understanding whose content was dictated by central government. A series of government reports during the 1980s and 1990s argued that while such an education had been appropriate for decades in which Japan was seeking to catch up with the West economically, it was no longer adequate. Japan faced a new age of rapid economic, technological and social change in which knowledge would rapidly become outdated and the ability to learn, create an innovation would be key.

Cave (2011:146) further explains that Japanese education had to change, introducing more emphasis on individuality, self- directed learning and the ability to think for oneself, in order to produce the creative self-starters thought to be needed for the future. To this end, school curricula were revised in 1989, introducing a new emphasis on putting on learners' own interests centre stage in learning; they were then revised again in 1998, taking the new emphasis further by introducing a new curricular area, integrated studies into schools from 2002 (Komatsu, 2002:53). Integrated studies gave schools unprecedented freedom to decide the content and focus on developing children's creativity, problem solving ability and self-motivated learning. In recent years, concerns about slipping attainment have resulted in renewed government focus on academic standards, but learning and thinking for oneself maintain their importance in the latest curriculum revision (Published in 2008) and implemented in 2011.

A study conducted by Reza (2008:5), demonstrates that it is too far optimistic to think that a major change in classroom teaching practices is accomplished merely by changing formal

systematic frameworks such as the junior high curriculum or textbooks. The study also shows that teachers are ready to ignore parts of the curriculum or else just go through the notions of teaching it. Even limited changes in assessment practices may not be enough to change what happens in the classroom.

What is particularly ironic, of course, is that the Japanese state has often been criticised for imposing regimentation on the education system yet, now that it has explicitly sought to develop children's autonomy and has given teachers the freedom to do so, teacher resistance meant that success has been limited. It might be argued that for the new policy to succeed, clearer and more intensive state direction and support is needed in the form of better teacher training and greater resources (whether learning materials, personnel or both). However, one should also recognise that the inherent tensions within Japan's current education policies make them far from easy to implement (Cave, 2011:160).

Conforming to Kimura and Tatsuno (2017:9), since the official appearance of "active learning" in Japan, schools and teachers have given increasing attention to the new learning methodologies. Some of them are confused, concerned or excited or have refused to mainstream the new methodologies into the classroom. A rising concern is that active learning might be an objective of the classroom, but in fact, active learning should be "tools" for variation and the enhancement of learner active engagement. In addition, the term "active learning" could be new to teachers but in reality, teachers and schools have organised "active learning" in their "traditional" classroom activities (i.e. special activities, integrated studies and extracurricular activities).

3.5.1.3 USA's curriculum review

The education system in the United States of America (USA) is highly decentralised. According to the Tenth Amendment to the U.S constitution, "The powers not delegated to the United States by the constitution, nor prohibited by it to the states are reserved to the States." In accordance with this Amendment, the federal government has no authority to establish a national education system nor do federal agencies ordinarily prescribe policy curriculum reviews for schools. Such decisions are made at the state or district level. Due of this decentralisation, laws governing the structure or content of educational programmes may vary greatly from state to state and, district to district. Some of these laws are very prescriptive, others are broad enough to allow local

school districts considerable flexibility in the way they operate their schools (Aydin, Ozfidan& Carothers, 2017:77).

On the other hand, despite this opportunity for experimentation and diversity, the education programmes of the fifty states are remarkably similar. This is as a result of such common factors as social and economic needs of the nation, the frequent transfer of learners and teachers from one part of the country to another and the role of national accrediting agencies in shaping educational practice (Aydin *et al.,* 2017:78).

In accordance with Khavenson & Carnoy (2016:179), the 1960s marked a time of radical change in curriculum reform in United States of America following Russia's launching of the first unmanned Soviet satellite to orbit the earth, Sputnik. The launch of the Sputnik caused panic among the Americans who feared that their nation was falling behind technologically. The American response to Sputnik was to establish a goal to produce more scientists who could master modern techniques developed from scientists' principles. This resulted in major revisions to school science curricula. Associated with the reforms was a large amount of educational research and as academics thought about the research results, theories relating to curriculum reforms were developed. So, a large body of innovation literature was developed from the 1960s.The 1970s saw a proliferation of curriculum developments in developing countries, following changes in the developed countries in the 1960s. There were mainly adoptions of what was thought to be good practice in developed countries, whose new curricula were used as a basis for reform as was the case in Lesotho (Ravitch, 2011:49).

According to Kirkgoz (2008:1821) global curriculum changes are motivated by attempts to prioritise curricula that focus on skills, application and problem solving. The 1970s saw curriculum changes in many developed countries including the United States of America (USA).In USA, changes in Science and Mathematics were consistent with attempts to augment national security against the East. However, criticisms were levelled against educational reforms in the field of science (Kirkgoz, 2008:1823).

3.5.1.4 South Africa's curriculum reviews

During the 1980s and 1990s, there were two curriculum reform efforts in South Africa. One formed part of the range of movements for alternative proposals against apartheid education

collectively known as ‘People’s Education.’ Drawing on Freirian notions of education for empowerment, this movement tried to shift the focus of teaching and learning from a strong transmitter model of a given body of knowledge to one that stressed the politically potent role of education and the importance of learners’ experience and local context. The impact of ‘People’s Education’ was extremely limited, what predominated in schools under a strong inspection regime and with teachers who were poorly trained, was a pedagogy consisting largely of drill and role routines, with teachers adopting authoritarian roles and doing most of the talking, with few learner initiations and with most of the learner responses taking the form of group chorusing (Harley, Barasa, Bertram, Mattson & Pillay 2000:289).

At the same time, the apartheid government was also engaged in its own process of curriculum revision, the Education Renewal Strategy, in an effort to rationalise and modernise curricula and make them more relevant (especially in terms of economic demands and that of the labour force). This last apartheid state reform responded to some of the curriculum developments in the USA and United Kingdom (UK), most notably drawing on ideas around constructivism and progressivism. But essentially, under the apartheid curriculum regime, strong control was exerted over knowing, knowledge and knowers, informed by an autocratic theory of pedagogy and clear content selection along white nationalist lines (Chisholm 2005:82).

In proportion to the Report of the Task Team for the Review of the Implementation of National Curriculum Statement (2009:11), the shift from the apartheid regime to a democratic state in South Africa in 1994, entailed a negotiated settlement between old and new rulers. This negotiated settlement had particular implication for education and the construction of a post-apartheid curriculum. he process of curriculum construction at this time was influenced by a number of foreign consultants; particularly those promoting Outcomes-Based Education (OBE) as a curriculum alternative fostering generic skills for a new global economy. Policy makers were also influenced by the increasing popularity of national qualification frameworks, which were identified as a way of integrating education and training and introducing equivalences into a system with a large number of desperate qualifications and unequal institutional capacity. Instead schools (or local districts) are told they can choose any content and use wide range of teaching methods as long as these develop citizens who display the agreed upon critical outcomes. (Department of Education, 2000:19).

In 1997, the new post-apartheid curriculum, Curriculum 2005, was launched. Curriculum 2005 was informed by a number of trajectories within education, both locally and globally (Garfield& De Waal, 2004:42). Curriculum 2005 was referred to as a paradigm shift in curriculum, from the traditional apartheid curriculum to a new outcome - based curriculum. Curriculum 2005 was also designed in relation to the new National Qualifications Framework (NQF) launched in 1996, which was an attempt to create equivalences between education and workplace learning by placing all qualifications on the same grid and breaking them down into units standards which could interchangeably make up different qualifications. There is general agreement in the literature that the construction of Curriculum 2005 was largely a product of labour's needs and their demands for a skills-based curriculum linked to NQF.

The curriculum had several progressive features. It placed emphasis on group work, relevance, local curriculum construction and local choice of content. Curriculum 2005 was reviewed in 2000. Although muted at first, the criticism generated by the first post – apartheid curriculum was significant. Prominent critiques focused on training and implementation, system failures and curriculum design. Jansen (2001:147) in his 'why outcomes-based education will fail' offers as a principal reason the idea that curriculum was driven by policy imperatives with no conception of the realities of classroom life. Later, Jansen (2001:149) went on to argue that policies developed in the first five years of democracy served the purpose of 'political symbolism' helping to mark the shift from apartheid to post-apartheid education and establish the ideological and political credentials of the new government. In short, although the political project of curriculum 2005 had been clear, the pedagogical one was far from graspable.

Further research related to curriculum 2005 involved a series of empirical classroom-based studies. The report on the studies (Taylor &Vinjevold, 1999:229) claimed convergence in findings from the research around a number of issues, most importantly around teachers' extremely poor conceptual knowledge. They also found that teachers lacked the knowledge base to interpret Curriculum 2005 and were unable to deal with integration and 'ensure that the everyday approach prescribed by the new curriculum would result in learners developing sound conceptual frameworks' (Taylor & Vinjevold, 1999:230).

Although teachers were implementing their understanding of forms of 'learner-centred' practice and co-operative learning, very little learning was taking place. Another key contribution to

critique at this time was Harley and Parker's (1999:187-188) analysis of outcomes –based education, the National Qualifications Framework, and competency models. They point out the conflicts in the system generated from incompatible frameworks-such as competence –based and outcome-based assessment (Williamson 2000:39).

In the light of the criticisms, a new team was set up to consider the curriculum and make recommendations regarding the 'strengthening and streamlining' of Curriculum 2005. It was in this Curriculum 2005 Review Report (Department of Education, 2009:13) that a key argument entered official discourse. It was based on a critique developed by Muller (2000:14) around the conceptual design of the curriculum, arguing that while the socio-political rationale for integration was clear, the pedagogical purposes were not. The fact that the curriculum had removed most of the content for subjects, and placed it with outcomes expressed as generic skills, meant that teachers were expected to select the appropriate content and design 'learning programmes' themselves.

The major design flaw of Curriculum 2005 was identified as ithaving no conceptual sequence and hence no learning progression path. 'It is true that different learners approach learning in different ways and might even learn concepts in a non-prescribed sequence. This non-prescribed sequence must be an alternative route up the 'same conceptual ladder.' There is no such thing as an alternative ladder of optional and replaceable concepts (Department of Education, 2000:44).

The curriculum 2005 Review Report strongly recommended reduced integration and clearer specification of contents. Greater simplicity to the design of the curriculum and language was also recommended. Significantly, under pressure from the unions (Chisholm, 2005:3), outcomes were retained in the design of the curriculum. As a result, certain pedagogical and curriculum features associated with outcomes would also be retained. These were identified by the *curriculum 2005 Review Report* itself. It states that outcome-based education asserts the dominance of outputs over inputs, but it also contains features of curriculum reform the world over which are:

- The active learner and ideas of uniqueness and difference
- The active teacher who rather than following a prescriptive syllabus make decisions about what to teach and how to teach it.
- The relative importance of activity and skills as a basis for knowing and knowledge

- The relative importance of induction over deduction (Department of Education, 2000a:47).

In 2009, the new Minister of Education called for a new review of the curriculum, again couched as a review of the 'implementation' of the curriculum rather than of the curriculum itself. The call for the review came from two main sources namely; ongoing criticism in the media of outcome-based education and the persistent poor performance of South African learners on national and international standardised tests. Again, a review committee was constituted, this time with significant government representation, as well as union and to a lesser extent academic membership. The emphasis was on strengthening implementation once again, and on teacher's experiences. A series of provincial teacher hearings attended by hundreds of teachers across the country were held, forming the basis for recommendations made in the report (Harley et al. 2000:290)

As in the previous review, but more directly, the National Curriculum Statement (NCS) *Review Report* made a strong call for a knowledge –based curriculum. Once again, the theory of knowledge in the report rests on Bernsteinian conception of knowledge structuring. In this vein, the *Report* invokes Michael Young's (2007) notion of 'powerful knowledge' in making its arguments around the social justice implications of an under-specified curriculum:

> *What we have learnt is that despite the good intentions of past efforts, an underspecified curriculum advantages those who are already advantaged –those who already have access to the knowledge needed to improve their life chances* (Young 2007:61).

Good progress has been made in education legislation, policy development, curriculum reform and the implementation of new ways of delivering education, but many challenges remain in many areas. Even with the introduction of the new curriculum, schooling outcomes have remained poor and the legacy of apartheid still exists. Mohangi and Berger (2015:57) hold that the South African schooling system is challenged by the new curriculum which has been imposed without taking into consideration educators' knowledge competencies in terms of content gap. South Africa has progressed well in policy formulation as can be discerned by government gazettes. However, outcomes of the implementation of the new curriculum are clouded with issues such as educator training and educational outputs.

Many educators have a challenge of lack of confidence and low morale. The type of in-service education that has been available to them to cope with many new policies was very poor. The challenge that educators face at their teaching career are among others workload stress which could be manifested through absenteeism and decreased adequate performance when present (Mohangi & Berger, 2015:60)

The entirety of curriculum changes since the new democratic era has been disastrous in South Africa. Indeed, while new changes emphasize learner-centred approach, the teachers are ill-equipped to carry out the tasks. Magano (2006:2) argues that changes in curriculum policy may lead to greater changes from teachers in the way they teach learners and the way learners learn in the classroom.

3.5.1.5 Zimbabwe's curriculum reviews

The Bill of Rights enshrined fundamental human rights and freedoms designed to guarantee equality of opportunity for all regardless of race, colour, gender, creed, place of origin or any other considerations. Public policy thus compels the state to ensure that there is equal opportunity for all. This principle has guided all policies and strategies for the provision of education in Zimbabwe since independence. State policy has been shaped, to a large extent by the principle of equality of treatment and opportunity for all children, women and girls. Several international conventions on human rights and equality have exerted tremendous influence on educational management and the education system. (The Zimbabwe National Commission for UNESCO, the Ministry of Education Sport and Culture and the Ministry of Higher Education and Technology, 2001:7).

Kurasha and Chabaya (2013:55) hold that at independence in 1980, Zimbabwe inherited a dual education system characterised by inequalities between a system designed to serve the needs of the minority white (whites were defined in Zimbabwe as Europeans, Asians and Coloureds) and another system designed for the vast majority were Africans. In order to redress these inequitable and discriminatory practices of successive colonial governments, the post-independence Republic of Zimbabwe government adopted education as a basic human right and committed itself to universal and equal educational opportunity for all. It was within this broad policy framework that the Government, buttresses by the progressive Bill of Rights in the Independence Constitution (1979) reorganised, democratised and expanded its education system.

There is a prescribed National School Curriculum in Zimbabwe. Based on Dzimiri and Marimo (2015:52), the responsibility of curriculum development, research and curriculum review lies with formerly Curriculum Development Unit (CDU) recently named Evaluation and Syllabus Development (ESD) unit of the Zimbabwe School Examination Council (ZIMSEC). These units are semi-autonomous governments' agents within the Ministry of Primary and Secondary Education. In order to carry out this enormous mandate, ZIMSEC works in consultation with other stakeholders in curriculum matters such as teachers through subject panels. A number of curriculum reviews have been conducted in Zimbabwe since independence.

In January 1998, President Mugabe constituted a Commission of Inquiry into Education and Training in Zimbabwe to review the current education and training system in relation to present and future needs of the country. The Commission was tasked to inquire into and report upon the inherited education system as to relevance, quality and orientation in the rapid changing socio-economic achievement. The Commission also examined the basic principles and philosophy of Zimbabwe's educational and training needs and aspirations on the eve of the 21st century, and having regard to the challenges of a competitive global environment in the information age, and the fundamental changes to the current curricula at all levels (Government of Zimbabwe, Report of the Presidential Commission of Inquiry into Education and Training, 1999:232).

The government set up the Presidential inquiry into Education and Training (CIET) in 1988 which produced a report in 1999 that stressed that education in Zimbabwe since the colonial era was overly academic in nature and did not cater for the majority of learners (Mawere, 2013:1075).The Presidential Inquiry into Education and training (CIET) also known as Nziramasanga Commission advocated that there was a need for a further detailed review of the school curriculum in order to address the identified need of the learners and the nation. In 2010, the National Education Advisory Board (NEAB), under the Ministry of Education, Sports, Arts and Culture compiled an analysis of the curriculum needs of the country and proposed that a more comprehensive review of the curriculum be carried out pointing out that recommendations by the Nziramasanga report had only been fulfilled partly. (Mawere, 2013:1080)

The Nziramasanga Commission of Inquiry into Education Report (199:58) identified the following on the education system:

- To have a curriculum that is relevant and leads to employment and self-employment.
- To develop an education curriculum that values talents and takes cognisance of the services and the development needs of the country.
- To adopt an education structure that is flexible enough to accommodate the changing curriculum thrust.
- To implement the new curriculum effectively and resourcefully.

After identifying the challenges in the education sector, the Nziramasanga Commission of Inquiry in Education Report (1999:259) recommended the provision of a core curriculum which develops individuals in a holistic manner and includes scientific, technological, social, problem solving and creative skills. The establishment of strong linkages between schools and training institutions and industry led to the introduction of schools on the shop floor in 1996 was also recommended. The provision of systematically structured pathways for post basic education, catering for different interests and establishing linkages to facilitate transfer from one pathway to another and this also led to the introduction of two pathway system in 2006.

Schools on the shop-floor in the 1990s, which attempted to link schools with the workplace and vocationalisation of the school curriculum (Education Act 1996) was also introduced. The Government's effort to vocationalise secondary education by twinning schools with factories was also taken aboard by a few schools in the urban centres who managed to establish links with industries (Nziramasanga, 1999).Effort to vocationalise the curriculum through the 1996 Education Act did not yield much. From the foregoing, it can be argued that initiatives have been undertaken to broaden the secondary school curriculum in a bid to cater for the various interests and aptitudes of learners with very little success (Munikwa, 2011:23)

Coltart (2012:02) laments that one of the key concerns about Zimbabwe education system has been the bias for academic subjects and the resultant failure of the education system to prepare learner's adequately for Zimbabwe economy. He further observed that this scenario became one of the agenda items for the Nziramasanga Commission of Inquiry into Education and training (1999). The Nziramasanga Commission (1999) recommended a Three Pathway Education System which the Government adopted but only implemented in 2006 as the Two Pathway Education System (Pedzisai, Tsvere&Nkonde, 2014:162). The Two Pathway Education System offers a skills pathway in Technical and Vocational (Tech/Voc) subjects and

Business/Commercial subjects to cater for the interest, aptitude and demands of the learners' world of work. The Commission recommended a two-pronged secondary school curriculum with strong Tech/Voc and Business/Commercial subjects to cater for the interests, aptitudes and demands of learners' world of work. This two-pronged education curriculum referred to as the Two Pathway Education curriculum was as per policy to be implemented by all secondary schools throughout the country. Policy Circular Number p77 of 2006 (Zimbabwe Government 2006) provided guidelines on the implementation of the new –look curriculum initiative. The policy initiative aimed at providing a wide range of Tech/Voc and Business/Commercial subjects from which learners could choose so as to shape their career opportunities in vocational education courses (Pedzisai, Tsvere & Nkonde, 2014:163).

Mahere (2006:2) says, 'At Form 3 all learners continue to do their academic core subjects with a combination of subjects chosen from skills areas. 'According to Zimbabwe (2006), Policy Circular Number p77 of 2006, learners can pursue one of the following, options:

Option1: General/Academic core subjects including Computer studies where a learner may choose to pursue Business/Commercials as a major (at least two subjects) and one subject from Tech/Voc as an elective.

Option 2: consists of general/academic core subjects including computer studies where a learner pursues at least 2 Tech/Voc subjects as major and one subject from Bus/Com as an elective.

From the policy pronouncement, it can be noted that after the initial two years of secondary school education, a learner would study basic subjects from the General/Academic core subjects and choose any two subjects from either Tech/Voc or Business/Commercials pathways. On top of that, Computer Studies was compulsory (Mahere, 2006:3). Non-uniform implementation of the Two Pathway Education structure by schools was necessitated by lack of information and the unavailability of both human and material resources. Also, non-uniform implementation of the two pathways education system was caused by lack of finance for infrastructural development such as workshops and computer laboratories. One day workshops that school managers had to learn about the new system did not give them ample time and grounding to fully grasp the guidelines and principles of the Two Pathway Education structure. The use of streaming as a technique of placing learners was a clear indicator that school administrators were not aware of the dictates of Policy Circular November p77 of 2006 which states that learners should make individual choice of the pathway they are skilled in (Pedzisai, Tsvere & Nkonde, 2014:171).

Despite deliberate attempts to equalise access to education and Voc-Tech curriculum for boys and girls at various levels of the education system, a disturbing phenomenon has been the enduring low participation of girls in those subjects that they have been excluded from up to and before 1980. As a consequence, most girls cannot take up training in post-secondary courses and professional programmes which set these subjects as prerequisite. Chimwayange (2005) cited in Masinire (2005:624) observed that while boys have low participation rates in Home Economic subjects, this does not in any way affect their long-term occupational dominance of the hotel and clothing industries. However, the policy of provision of practical and academic subjects at secondary level was marred by large numbers of learners that put pressure on infrastructural, financial, human, teaching and learning resources (Dziwa et al. 2013:315).

Over the last two decades, there have been conversations in government, education, non-governmental organisations, the business world and other social facets in Zimbabwe about the nature of the education system. The conversations have focused on the shortfalls and on what could be changed or improved to make it produce individuals that contribute meaningfully to the development of the country economically and socially in light of the emerging socio-economic challenges bedevilling the country and the world at large (Mawere, 2013:1075).According to Curriculum Framework for Primary and Secondary Education (2015: V), on 28 November 2014, the Ministry of Primary and Secondary Education initiated a nationwide consultative review process that involved stakeholders including learners, parents, teachers, leaders in industry and commerce, farmers, church organisations, civic society, institutions of higher learning and government ministries and departments. Furthermore, there was extensive media coverage which included advertorials, new casts, features and interviews in all platforms. The result of the consultative review process was a Narrative Report 2014-15.

The Curriculum Framework for Primary and Secondary Education (2015:22), which offers a vision of the education system and the kind of school graduates that Zimbabwe needs, was principally informed by the findings and the recommendations of the Narrative Report 2014-15. The findings embrace among other things some of the recommendations from the Presidential Commission of Inquiry into Education and Training (CIET) Report published in 1999. Other principal pillars relate to the Zimbabwean Constitution (2013), the Education Act as amended in 2006, and the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZIMASSET,

2013). The Framework was also informed by the country's heritage, history, national ideals and aspirations (Curriculum Framework for Primary and Secondary Education, 2015:V)

The Curriculum Framework spells out learner exit profiles at various levels in the education system. Learner exist profiles describe the acquired knowledge like content mastery, basic literacy and numerous, skills such as problem-solving skills or critical thinking skills, values (honesty) and attributes that a learner should possess as a result of their learning experiences. These exit profiles have been drawn on learning from other high-performing education systems that have developed, refined and articulated generic skills and attributes that learners need in the emerging socio-economic environment (Curriculum Framework for Primary and Secondary Education 2015:17).

3.6 MANAGEMENT OF EDUCATIONAL CHANGE

Change is viewed to be an inevitably emerging and unpredictable phenomenon of the social world. Morrison (1998, 2002), holds that, change does not develop according to a linear pattern. He argues that change cannot be predicted by linear equations. Interdependence and interaction between people leads to emergence of social evolution and order. Implementation of curricula review could be understood from the context of this anthological position, for example, according to Honig (2006:10) the complexities of the implementation of curriculum reviews relate to dynamics emerging at school, district and state levels. The dynamics come from the nature of human relations as individuals or groups which have a direct connection in the process of curriculum reviews. The relationships translate organisations into social open complex processes that develop from unpredictable patterns. Distributed control and communication are some of the key principles used to manage emerging dynamics. Curriculum review is a political activity. Those in power influence what gets implemented from the curriculum review. Government may lack adequate funds to implement curriculum review. The dynamics that are likely to emerge at district level are lack of supervision and support from District Schools Inspectors. The district officials may also lack relevant knowledge about the curriculum review. The approach that curriculum review planners adopt has a bearing on its implementation. If an

autocratic approach is taken on board in the implementation of reviewed curricula, teachers are most likely to resist the change. Teachers as curriculum implementers may misinterpret the contents of the curriculum review during the implementation process. If information about the curriculum review is not properly disseminated, learners and parents may resist and fail to cooperate during the implementation of the curriculum reviews.

As reported by Pansiri (2014:27), educational change management as a term became popular in the 20th century. This was due to the demands that were made on schools for learner achievement and schools were expected to improve and reform or change. The world we are living in is always changing and this change is always very fast. Curriculum should also change fast to be relevant, otherwise it may be left behind and struggle to survive in this ever-changing world. Challenges of introducing curriculum review will emerge and will need to be managed.

3.6.1 Kotter's eight steps to change

The first change management model that is identified is John Kotter's eight step model of change. John Paul Kotter is a leading professional in change management. He is Konosuke Matsushita Professor of leadership, Emeritus Professor at Harvard Business School and world-renowned change expert. His eight-step model of change has been a base for many change theories. It has been broadly used for transformation and change initiatives in large organisations and is named one of the most influential management of educational change (Kotter, 2012:38).

According to Kotter, to make a prospering change in an organisation, there are eight crucial success factors that will lead the organisation through a successful change. (Gill 2003:311). Leaders who successfully implement change do eight things (and do them in the right order)

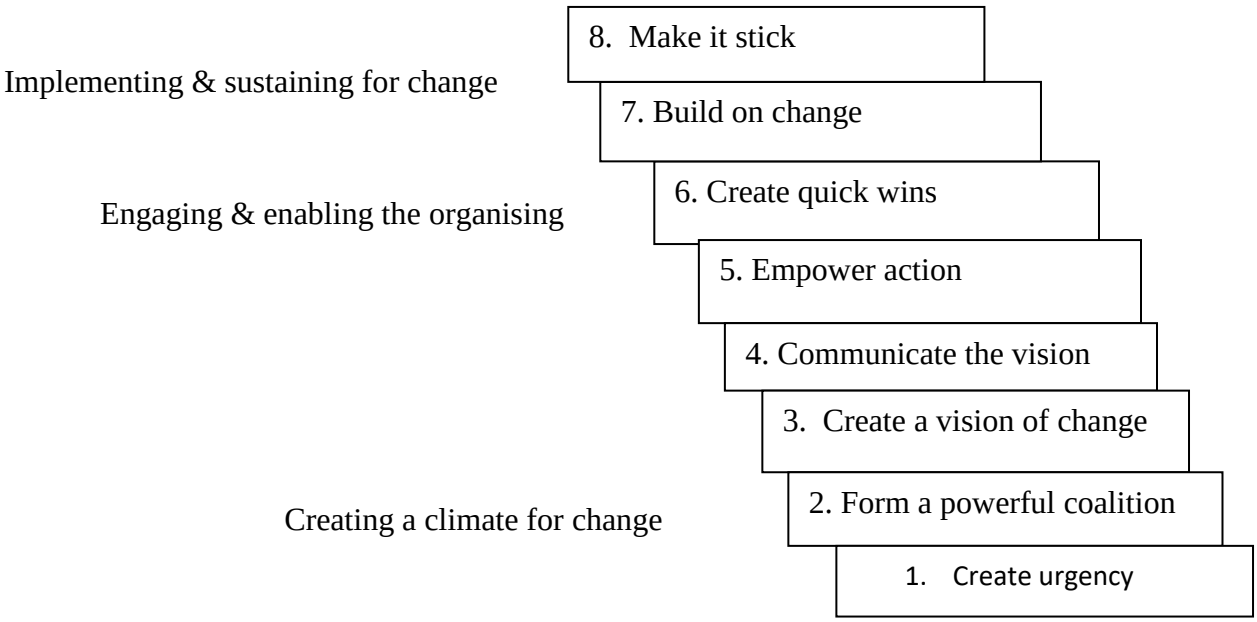

Figure 3.2: Kotter's eight steps of change adapted from Kotter, 2007

3.6.1.1 Creating a sense of urgency

As stated by, creating a sense of urgency is making people in the organisation see the need to implement curriculum review and to treat it with urgency. Converting the importance of acting immediately by showing potential threats and scenarios is of paramount importance (Pollack & Pollack, 2015:10). Complexity theory advocates collaboration in the implementation of curriculum reviews to complete the task, thereby creating a powerful workforce which directs the successful implementation of the curriculum review. Establishing a sense of urgency is necessary to gaining the cooperation required for successful implementation of the curriculum reviews.

3.6.1.2 Creating the directional team, a powerful coalition

Kotter asserts that convincing people to change calls for strong leadership and support from the management. This means putting together a group that has the ability to lead the change initiative (Appelbaum, Habashy, Malo & Shafiq 2012:770). Managing a change is not adequate, it has to be led. Thus, a select group of people should continue to shape the urgency and the strength around the need of the change (Kotter, 2012:53; Kotter, 2007:4). Working together as a team is strongly emphasized in complexity theory. Working as a team creates more momentum

in the implementation of the curriculum reviews. This team pulls together to ensure successful implementation of the curriculum reviews.

3.6.1.3 Developing a change vision

Kotter claims that when making a change initiative, management sifts through ideas and proffer solutions on how to make the change. By making a vision which is simple and clear to remember as well as to understand and making it part of the organisational strategy, it helps teachers and learners to follow the change and be part of it (Brisson – Banks 2010:255). This is in tandem with complexity theory which states that curriculum reviews are complex processes which cannot be determined by an individual or a group of people. There is need for school management to consider ideals and solutions of all stakeholders to come up with a vision for implementation of the curriculum review. School managers should use every effective communication channel possible to share and promote the vision of the curriculum reviews.

3.6.1.4 Communicating a vision

After building the climate for change, management has to engage and enable the rest of the organisation by communicating the vision. According to Kotter, a vision is crucial for the success of the change initiative. The vision has to be clear and frequently communicated as well as implemented into the day to day work, applying the vision in all operations from training to performance reviews (Gupta 2011:148). Repeating the change vision in discussions with teachers and all stakeholders on all levels and leading by example is important for a permanent change (Moran & Brightman 2001:115). Kotter stresses the importance of communicating the vision to all stakeholders. Communication is central to complexity theory and this communication should take multiple channels without necessarily taking a top down approach. How information is disseminated determines the success or failure of the implementation of the curriculum review.

3.6.1.5 Removing obstacles

Kotter argues that an organisation needs to eliminate all obstacles that would interfere with the change, change systems or structures. Is everything in line with the vision, the organisational structure, school tone, discipline and performance? The organisation has to identify the people

who are resisting the change and get them the needed tools, methods or support that would make it easier for them to change and solve the problems that are caused by the resistance (Todnem 2005:50).Building relations by removing obstacles is also emphasized in complexity theory. Thus, the school manager's task is that of moving the group towards establishing positive interrelations for the success of the implementation of the curriculum reviews. Obstacles that hinder effective curricula review implementation should be eliminated and support structures should be put in place to encourage people to take risk for the success of the implementation of the curriculum reviews.

3.6.1.6 Induce short-term wins

The result of success motivates to work forward on change. Kotter claims that by involving visible and clear short-term wins that are clearly related to the change, this effort can make change more receptive. (Pillay, Hackney, Braganza 2012:61). Without the short-term goals and the result of success, the process can be vulnerable for negative thinkers and criticism that can slow down or even hurt the whole change initiative (Kotter, 2012:121; Kotter, 2007:8). Inducing short term wins in the implementation of curriculum review is viewed by complexity theorists as operating on an associationist or connectedness principle. By rewarding positive outcomes in the implementation of curriculum review, positive behaviour is most likely to recur. If there is recurrence of positive behaviour then successful implementation of curriculum reviews is assured. Curriculum reviews should taste early victory and be made to know that success breeds more success. The short-term wins help build momentum that facilitate the successful implementation of the curriculum reviews.

3.6.1.7 Building on change

After going through engaging and enabling, the management needs to implement and sustain the change by building on the change. According to Kotter, even if the early stages succeed, there is always resistance and the team cannot stop working on their main goals (Applebum et al, 2012:775).

In step 7 on building change, learners explore more during lessons, concepts are made easier to grasp and more people get involved proving the new way is working. However, celebrating on victory too early could affect the change initiatives negatively. (Kotter, 2012:137;

Kotter,2007:8). The short-term wins are the beginning of the change resulting in making change stick. Every short term win gives an opportunity to explore what is done right and what is done wrong and from that, organisations may set new goals and make the necessary improvements towards the main and final goals (Pollack & Pollack 2015:11). If schools have a leeway to organize themselves as one of the tenets of complexity theory, they explore more during the implementation of curriculum reviews and more effort is likely to be exerted to make it a success and sustain it.

3.6.1.8 Make it stick!

In the last step comes the cultural change, making the change part of the organisational culture. (Kotter, 2012:153; Kotter, 2007:8). Cultural change can only happen when it is proven that the new way of doing things is better than the old one (Brisson – Banks 2010:260). The success must be clearly communicated throughout the organisation. Making change stick is making the change be part of day to day activities, being "the way of doing things" (Kotter, 2012:153; Gupta 2011:150).At this stage connectedness or linkages which are a key element of complexity theory is very important. There is need for the school management to continuously articulate linkages between successful implementation of curricula review and collaboration.

Kotter's 8 step model is clear in leading change not managing it. It leaves a significant burden of responsibility to upper management to provide the needed support for successful change. The model emphasizes roles and responsibilities of those facilitating change. The model works well as a framework. It helps organisations in finding their own steps on their change initiatives. Organisations could make it applicable to their needs. Because the model is made for organisations to help them cope through new and more challenging market environment. The model cannot be used in all types of change and can be too heavy for small change initiatives (Blomquist, 2017:27). Kotter's eight steps of change, assisted the researcher in suggesting the processes that the school managers need to implement in mitigating the challenges they encounter in implementing curriculum reviews.

3.6.2 Lewin's 3 step Model

One of the most important theories in understanding organisational change and change management is Lewin's 3-step model of change (Mclean Bourda, 2013:6). Kurt Lewin was a

German-American psychologist, who studied human behaviour and released his three step theory (in 1947) of change (Aziz, Muda, Ibrahim & Mansor 2017:110).

In conformity with observations and research, he understood the problem of change and how to make change permanent and not let people go back to their old habits Van Ossten (2006:713). Lewin looked at the change phenomena as deriving from two different forces, those internally driven (from a person's own needs) and those imposed or induced by the environment.

From that framework, Lewin found the solution on how to get permanent change implanted with 3-step model. All the three steps in the model propose specific activities that address motivation, implementation, and promote the organisational change (Mclean Bourda, 2013:7). The 3-step model is presented as an analogy of the changing shape of an ice cube by first "un-freezing" it, changing it and then re-freezing it, as shown with the framework below (Walker, Armenakis & Bernerth 2007:765).

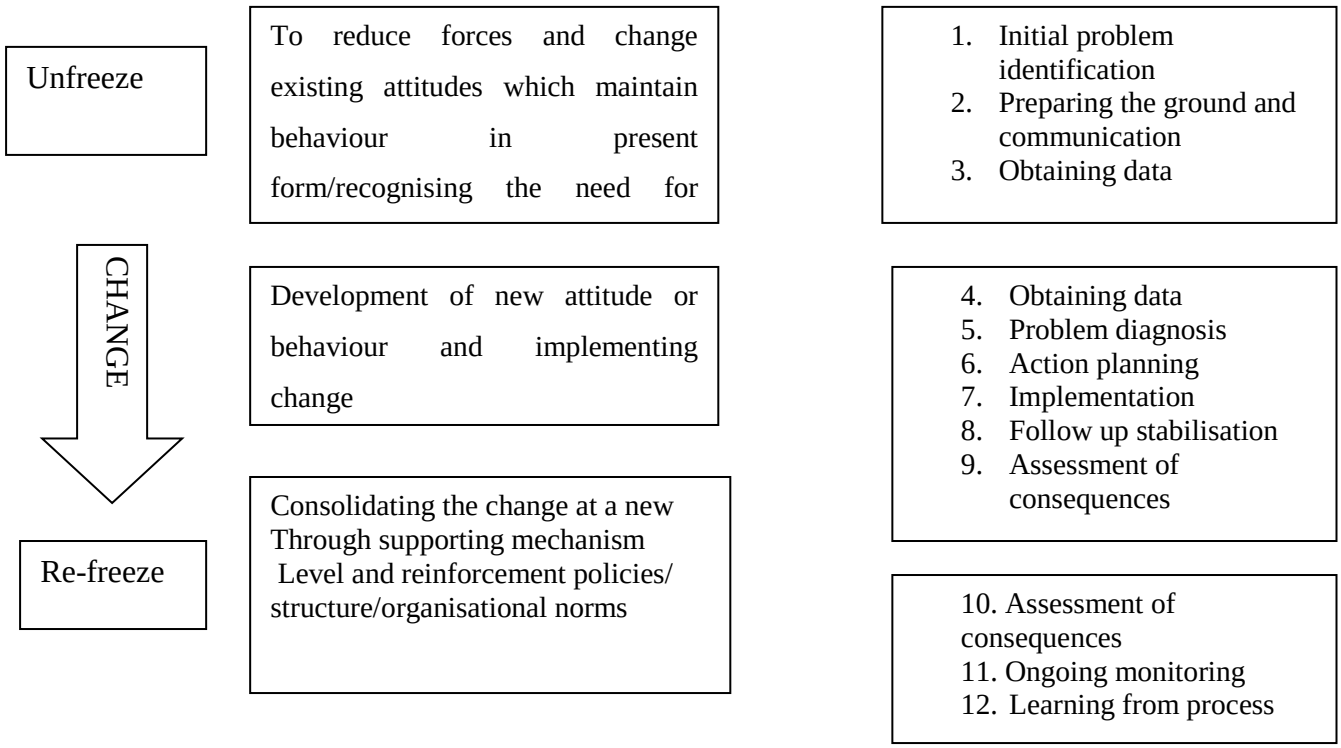

Figure 3.3: Lewin's framework for change (Adapted from Lewin 1947)

3.6.2.1 Step 1 Unfreeze adapted from Lewin, K 1947

As can be seen on the figure above (Figure 3.3) in the unfreeze stage, organisations come to the conclusion that a change is needed and necessary, they break down the existing state of affairs, status quo and begin to build the new way of doing things. The organisations disseminates clear messages why the old way of doing things is no more acceptable and they have to question values, beliefs, attitudes and behaviours (Kritsonis 2015:1).

In this stage, it is important to work on the resistance and as pointed out in Figure 3.3, reducing forces and change the attitude in addition to make the people understand the change and support them. If there is resistance, management needs to find solutions promptly, so that the process can follow through the un-freezing stage. On the unfreeze stage, Lewin concurs with the dictates of complexity theory that people should be involved and understand the reasons for the curricula review. The more people feel that curricula review is necessary, the more motivated they become to implement it.

3.6.2.2 Step 2 change

In the "change" step, things start to happen, and the organisation moves towards desired state. The people within the organisation start to act and believe the change and start acting accordingly towards the desired direction (By, 2005:371). They take part in the different change initiatives and need to understand the benefit of the change (Mills *et al.,* 2009:49). In the change stage the organisation is very effective on promoting communications and supporting people to welcome the new ways of working and learn new values, attitudes and behaviours. If there are problems, they would be identified, and action plans would be developed. Lewin emphasizes the importance of communication so that stakeholders embrace the new way of doing things. Communication is also paramount in complexity theory. When information is circulated to people, they tend to embrace curriculum review much faster than when information is withheld. Since curriculum review implementation is not an event but a process, people need ample time to grasp its operations for them to understand it fully.

3.6.2.3 Step 3 Re-freeze

In the final step of Lewin's change process comes the re-freezing. In this step, the changes are taking shape, people within the organisations comprehend the new ways of doing things and the changes are implemented in the organisational culture. Rewards and acknowledgements are used to reinforce change. The re-freeze stage is crucial for not letting people get back to their old habits but continuing with the new ways of doing things. In this stage it is also still important to monitor that people do not fall into their old habits and can be aware of any symptoms of problems and solving them as if they were to happen (Wanberg &Banas 2000:137) The issue of building relationship which is essential in complexity theory is also stressed by Lewin. People at this stage establish new relationships that come with the implementation of the curriculum reviews and become comfortable with their routines. Lewin's model of educational change also assists in suggesting processes involved in mitigating challenges encountered by school managers in the implementation of curriculum reviews.

3.6.3 Awareness, Desire, Knowledge, Ability and Reinforcement (ADKAR) model

The awareness, desire, knowledge, ability and reinforcement (ADKAR) model was developed by Jeff Hiatt, the founder of Prosci, a company that effectively manages the people side of change with their research, training and enterprise solutions (Proscia.com, 2017). ADKAR is an acronym that presents the five outcomes that an individual in an organisation must achieve for change to be successful: awareness, desire, knowledge, ability and reinforcement (Hiatt, 2006:1). As claimed by Hiatt, the ADKAR model is divided into five elements (every better being one element) and are building blocks for change. Every block must be in its place for change to be successful and to happen at all (Goyal & Patwardhan 2018:298).

3.6.3.1 Awareness

Being the first step in the ADKAR model, awareness is only accomplished when the individual in the organisation is aware of the need for change, why it is done, and what it can result to (Hiatt, 2006:5). The individual has to see the problem in the old ways of doing things and understand the consequence if change does not happen (Kristonis 2005:7). According to Hiatt the number one reason for failure and resistance to change is lack of awareness why change is being made (Hiatt, 2006:5). However, good and effective communication has been not an

immediate key to success. A lot to do with the recipient of the communication impacts on effective implementation of change. How does the individual take the change? Does the individual feel there is a need for a change? Is communication clear and understandable? The involvement of people and making them aware of the curriculum review which is expressed under awareness is key in complexity theory. Once curriculum reviewers are made aware of curriculum reviews, they are most likely to develop a positive attitude towards curriculum reviews and this enhances successful implementation of curriculum reviews.

3.6.3.2 Desire

After the individual is aware of the change, the individual must desire to change. The individual has to want (have the desire) to be part of the change and endorse the change. It is the motivation and the choice that the individual makes to support and wanting to be a part of the change that makes change possible (Hannay, Jaafar & Earl 2013:67). This step is very challenging for the organisation, because the school has very narrow control over an individual's choice (Hiatt, 2006:18). Self-organisation which is one of the tenets of complexity theory suggests that systems and organisations have an inherent propensity to power themselves up referred to in the case of Hiatt's theory as developing a desire. Once the drive or desire develops, among curricula review, then its successful implementation will be assured.

Compared to the awareness where you can make visible steps for awareness of change, the desire cannot be controlled by the management and cannot be taught but has to start and be emphasised by an individual themselves. The individual can be aware of the change but because of different factors, misunderstanding or lack of information may not have the desire to change or be a part of change (By 2005:375). According to Hiatt, the frequent mistakes multiple school managers make is they think that by building awareness, desire is also built. That is a misconception that leads resistance to change and can make change initiatives more difficult (Hiatt, 2006:18). By understanding the factors that would result in resistance to change, the desire to change is very important for the ADKAR model to work and to continue (Hiatt, 2006:21).

Hiatt also claims that, the factors that would help the individual to have the desire to change are to get the individual to understand: what the change really is and how it will affect them, how they see the organisation, their personal situation and the key indicators/motivators that would

make them part of the change (Hiatt, 2006:18). Will the change be a good opportunity or a threat to their day to day work? If the attitude is negative, the outcome will be negative, in this case not to have the desire to change. If it would be positive, the steps for change can happen and the desire is "built" within the individual (Paton & McCalman 2008:60).

3.6.3.3 Knowledge

When being aware of change and making the decision to be a part of the change, having the desire, the individual needs the knowledge to change. The individual needs to know how to implement change and processes that make the change (Hiatt, 2006:23). By getting the needed training, education on the needed new skills, the information and understanding on the new roles and responsibilities that the change will bring, the individual can in their work start the changing transformation process (Hannay,et al. 2013:69).

The level of knowledge and how an individual retrieves knowledge can be different. The individual can already have the required knowledge or there can be a huge gap between knowledge that the individual has and is required to have (Hiatt, 2006:23). How one learns is different from every individual, some learn quickly, others slowly, some easily, while others learn with a lot of struggle. In change, this would imply that when learning new tools, processes, technical skills or concepts, individual differences should be catered for (Hurn 2012:48). The important aspects for the change initiative can be processed fully; the individual would need training to be acquainted with the needed skills and concepts of implementing change (Hiatt, 2006:23).Once the curriculum review exhibits the know-how of the curriculum review, they are most likely to implement it as intended. Knowledge of the curriculum review can only develop if the curriculum review is involved in the curriculum review process. New knowledge is produced through interaction which is an element of complexity theory.

It is crucial for curriculum review to be knowledgeable of what exactly is expected of them. This creates a sense of ownership of the intended curriculum reviewed as people would identify themselves with the reviewed curriculum resulting in the successful implementation of curriculum reviews. Involvement of curriculum review is also emphasized in complexity theory.

3.6.3.4 Ability

When the theory for change has been appropriated, one would need the practice. After the individual has retrieved the needed knowledge, the individual needs to exhibit the ability to change. Ability presents the individuals how to implement the change and reach the desired outcome (Goyal & Patwardhan (2018:299). When the knowledge step is the theory, the ability is the practice, the actual interpretation of the individual, the actual work with its new process and implications (Hiatt, 2006:31). If curriculum reviews are empowered through constant communication and if there is good rapport and a leeway for them to organize the curriculum review, they are most likely to develop the ability to implement curriculum reviews successfully.

3.6.3.5 Reinforcement

How to make the change stick and celebrating the success, making change a part of organisational structure, reinforcement is needed to sustain the change (Hiatt, 2006:37). Reinforcement can be difficult from a change management perspective. According to Goyal and Partwardhan (2018:11) when the change is ready the organisation moves to the next change initiatives (prosci.com, 2017). It takes time to make change stick and individuals not returning to their old habits. To make change work reinforcement needs strong efforts and for one to stick to the change initiatives until the change is actually sustained and made part of the organisational culture (prosci.com, 2017). As indicated by Goyal and Partwardhan (2018:303), ADKAR model succeeds when the management takes a step back and sees that teachers are actually doing their work differently (Todnem 2005:375). Reinforcement expressed as feedback in complexity theory is very important for the success of the implementation of the curriculum review. Feedback must occur in the implementation of the curriculum review. Positive feedback empowers curricula review while negative feedback plummet the zeal in implementing the curriculum reviews. The ADAK model helps in identifying the change agents for effective implementation of curriculum reviewes.

3.6.4 The Cyclical Integration Model of Change Management

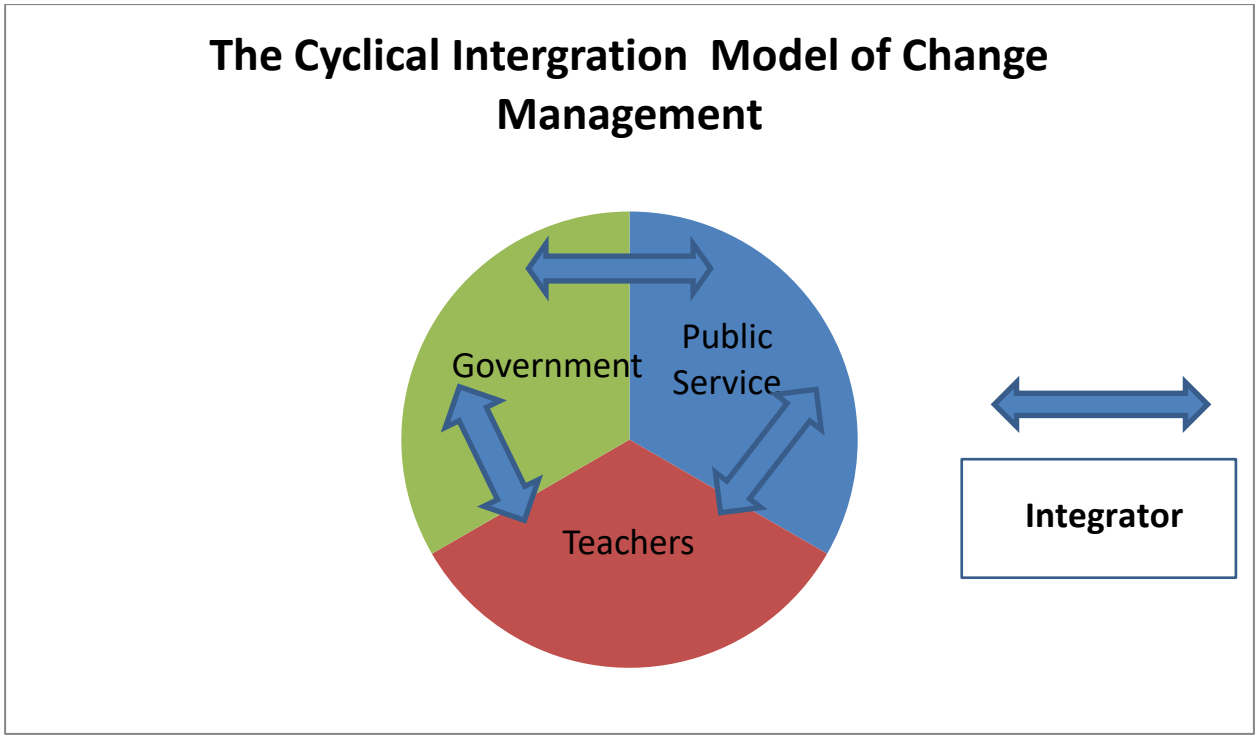

Figure 3.4: The Cyclical Integration Model (Adapted from Newlyn, 2016)

The model presented in Figure 3.4 comprises an integrated operational component (government, public service and teachers) and one external integrator having an executive function. The operational component is created to deal with introduction of significant change initiatives. According to Newlyn (2016:59), the model is organic in nature in that rather than operate in a push down fashion, members of the operational component are arranged in collegial dialogue during the formulation of a proposed change. Government still sets agendas, the public service still produces policy documents which teachers still implement, but each does so in an environment of ongoing dialogue and mutual cooperation (Figure 3.4, arrows). Each party's representatives sit together at the discussion table armed with 'framing questions' rather than with predetermined objections, premature solutions or prepared ideologies. Communication which is central in complexity theory is emphasized in cyclical integration model. Mutual cooperation, absence of domination and equal opportunity is equally important in both cyclical integration model and complexity theory.

The framing questions for the government on big picture issues, while at the same time recognizing the importance of national priorities and international trends. Considered answers to questions such as these are likely to result in establishing better jurisdictional respectability and providing a clear project rationale, leading to a more satisfactory outcome. Van Der Duin, Ortt & Kok (2007:206) further argues that, whereas the government framing questions are change policy related, public service questions focus more on the change process. Giving serious attention to such questions is likely to result in a better coordinated approach, fewer resolutions later proving to be unworkable.

At the heart of these questions is an overarching question which asks, 'what could possibly hamper policy delivery?' Ultimately policy without successful delivery is ineffective, frustrating and for many individuals, psychologically and emotionally costly. Although all three groups are asking different questions, what unites them is their corporate desire to achieve a successful outcome. In considering a curriculum review, for example, the government representative would raise matters of international importance vis-a-vis local desirability (the 'why' question). The public service representative would raise issues related to resource availability (human and budgetary) to manage the change (the 'what with' questions) and the teacher representative might want to consider professional development and content transition issues (the 'how' question). It is only when all of these matters are considered and catered for that the proposed curriculum review has any chance of being effectively implemented (Belach, 2011:4). Different models on how to manage change have been deliberated on in this section. Globally, many countries have dealt with issues of management of change. The cyclical integration model helps in suggesting the key stakeholders in mitigating challenges encountered by school managers in the implementation of curriculum reviews.

3.7 MANAGING EDUCATIONAL CHANGE: GLOBAL PERSPECTIVE

Educational change management has become one of the key processes necessary in the implementation of curriculum reviews. According to Zamyatin (2012:18), Russia's education system mostly began to take shape at the beginning of the 1990s and it inherited many educational structures of the Soviet period. Its construction continued for a decade. From the beginning of the 2000s, the dynamics of language education in Russia began to be determined by

the preparations for a new educated reform. As in some other countries, the need for modernisation was used as justification. It began through systematic attempts by the Russia Ministry of Education to change federal and regional education policies and practices towards the recentralisation of power in Moscow and restoring the role of the central state as a major 'player' in school affairs (IIyinsky 2012:8).

3.7.1 Russia, Estonia and Latvia educational change

In 2007, the reform was launched by the adoption of the amendments to the Education Law (Federal Law, December 1, 2007). Among other changes, the education reform eliminated national, regional and school components from the state educational standards, which had previously served as a framework for teaching the history and language of the Russian people from the early 1990s, which saw the beginning of the decentralisation education reform, the dynamics of language teaching were determined by a language revival policy for a decade and even longer, notably in the republics (Djabbarova 2015:60).

With the collapse of the Iron Curtain and the Soviet Union in 1989-1991, fifteen newly independent countries emerged, and thirteen countries regained their historic autonomy. They had to establish new economic systems and governmental, social and other institutions including new education systems. In doing so, they confronted a common set of challenges in reforming Soviet education (Khavenson & Carnoy, 2016:181). Once incorporated as Soviet Socialist Republics (SSRs) after the Second World War, many Russians were moved to the Baltics and were employed in the military bureaucracy and in the region's many Soviet Enterprises. Teachers for the education system were trained in Soviet-run pedagogical institutes. Although local languages were used in the schools for local language speakers, Russian learners had their own Russian language schools for local language schools and the percentage of Russian learners attending Russian schools increased greatly. Russian was taught four times per week in Latvian and Estonian schools, parallel courses were taught in Russian at local universities, and the Russian language was privileged in many aspects of local life (Taranov, Basenko, Roshchina, Kulikova, Elima, Israilova & Samygin 2018:243).

With the collapse of the Soviet Union and the independence of the Baltics many of the more highly skilled Russians left for Russia. Yet most Russians stayed, mainly because of more favourable economic conditions than in Russia. For Latvians and Estonians (and Lithuanians),

the very essence of national identity was national language, and the education system was and is the main instrument for preserving and promoting local language (Silova 2002, cited in Khavenson & Carnoy, 2016:181).

Citizenship and national 'loyalty' meant speaking Latvian or Estonian. But for most Russian speakers, Russian language learning in "their" schools and the right to use Russian "officially" as in the past was also crucial to maintaining identity. A pillar of Latvian and Estonian national politics in the 1990s was incorporated into the European Union. European criticism of early 'over-nationalistic' language and educational policies in the Baltics may have played at least some role in forcing a more accommodating policy towards the Russian minority in Baltic citizenship requirements and education reforms (Anikina, Ivan Kina & Sorokina 2016:558). The underlying promise of the compensatory legitimisation analysis of educational reforms is that the capitalist state faces a 'crisis of legitimacy' – a crisis that derives from the class structure of capitalist society and the difficulty for the state to at once distribute social goods and services unequally yet legitimately

As specified by Halloway, Mirny, Bempechat and Li (2008:489) the importance of public schooling in ostensibly allocating jobs and status in modern economies make it a prime candidate for compensatory legitimisation. The state seeks legitimacy in part through shifting public attention to reforms that would appear to create greater mobility and equality through 'more and better schooling'. This despite the likelihood that such '…reform policies with their associated rhetoric tend to generate expectations and needs which given the highly limited capacity of the capitalistic state for genuine change, they ultimately prove unable to meet. In Russia, educational reforms after 1991 focused mainly on the expansion of higher education, the creation of select academic secondary schools, and giving more control to local authorities for running primary and secondary education (Malinsky 2009:7).

Most teachers in Russia, even with autonomy, still use methods and teach mathematics and Russian in the 'old style', mainly because most of the teachers in the system were trained before 1991 and because many textbooks have not been significantly changed. The maintenance of much traditional curriculum and pedagogy, increasingly rooted in a growing conservative nationalism, continues until now despite the Organisation for Economic Co-operation and Development (OECD) efforts in the past decade to 'scandalise' countries such as Russia for their

low Programme for International Learners Assessment (PISA) Scores (Steiner-Khamasi, 2006 in Khavenson & Carnoy, 2016:182).

In contrast, educational reform in the Baltics introduced major curricular changes with the caveat that Estonia, alone among Soviet Socialist Republics, had managed to re-establish a national Estonian curriculum in Estonian medium schools' event under Soviet rule. These reforms logically focused on recovering national identity, particularly through language policies, and the printing of textbooks locally (Djabbarova 2015:559)

Estonia and Latvia, in contrast to Russia, developed their new educational reforms in a highly anti-colonial, nationalistic context, seeking to separate themselves from years of occupation by a repressive foreign power (Khavenson & Carnoy, 2016:183). Simultaneously, the reforms evolved in a highly internationalised context. Reformers had to assure that reforms were consistent with entry into the European Union. Reforms therefore re-nationalised education, but allowed Russian medium schools to continue teaching mainly, in not entirely in Russian.

Language policies in the Baltics were largely home grown and ambiguous. Latvian was officially declared the state language in 1988 during perestroika, and series of further laws in the 1990s strengthened the state's position that all other languages were considered foreign. Latvian was considered the 'national language of reunification'. The education law of 1998 made Latvian the exclusive medium of instruction in public colleges and universities as of 1999.

Kasyanov, Kovalyov & Samgin (2017:19) explain the two countries differ considerably in their implementation of local language policy in Russian medium schools. Estonian language/curriculum reforms in the 1990s and early 2000s were much less aggressively and more flexibly applied to Russian medium schools than they were in Latvia. One important reason for this difference may have been the distribution of the Russian-speaking school population.

As explained by Khavenson & Carnoy (2016:184) the education law of 1998 mandated Latvian language to be introduced in a flexible fashion in primary schools (grades 1 to 9) according to different models at the discretion of the Russian-medium schools themselves. Despite (or perhaps because of) this flexibility, by the early 2000s many Russian first and second graders were learning to read Latvian along with Russian (different alphabets). The 1998 education law,

in addition to mandating Latvian as the sole instructional language in universities required Russian-medium secondary schools (Grades 10 to 12) to teach courses in Latvian in a 60/40 proportion beginning in 2004. While the Latvian requirement in primary schools met with little resistance because of the wide range of options available, the secondary school language requirement became a source of political conflict between the Russian minority community and the government, resulting in more gradual implementation of the rule, but implementation, nevertheless.

In contrast, as late as 2006, Russian-medium primary and secondary schools in Estonia were teaching mostly in Russian. They did not have to follow strict curriculum guidelines until the secondary school language ruling of 2007, which required 60 percent of the curriculum of Russian-medium upper secondary schools to be taught in Estonian by 2011. Even this requirement was implemented with a certain degree of flexibility and school-by-school, avoiding the resistance to Latvia's similar 2004 law (IIyinsky 2012:8)

However, the amendments were poorly received in the republics, as some had anticipated during discussions on the draft concepts. The uncertainty about whether the language of Russia's people would be preserved, and how they would be conducted, caused anxiety and protest in Tatarstan and Bashkortostan, not only among national elites but also among teachers and parents who feared their officials would take the amendments to mean provision of language teaching (Stepanov, 2010 in Zamyatin, 2012: 34).

In 2008, the administrators of both republics appealed to the federal authorities demanding revocation of the 2007 amendments. The conflict received widespread media coverage. Articles disappeared with title like, 'Moscow is destroying the Multi-lingual System of Education in Bashkortostan', or even, 'The New School Education Standards as Casus Bell.' According to some experts, the exponents themselves provoked, 'a growth of interethnic tension in the republics of Russia' as a reaction to the deprivation of the republican or regional authorities of a considerable share of their rights in organising the education in native languages and their teaching schools (Lamskov, 2010:199;Stepanov in Zamyatin, 2012: 35).

In the opinion of Zamyatin (2012:34), in reaction to these appeals from regional authorities, the Ministry of Education proposed a number of ways to ensure the use of languages in education.

One of the proposals was a new amendment (Kasyanov et al., 2017:19) that supplemented the Education Law with a mechanism that allowed regional authorities to participate in the development of model educational programs with regard to regional, national and ethno-cultural specifics based on federal educational standards. Although the law does not contain a separate reference to linguistic issues, it is expected that the mechanism will enable teachers of native languages to be preserved under the new federal educational standards.

Zamyatin (2012:36), states that a discussion was initiated on this issue. Representatives of Tatarstan and Bashkorstan expressed their concern that amendments to the law could tip the balance in federal relations. The resolution adopted following the hearing acknowledged legislative deficiencies that deprived the regions of autonomy in developing teaching programs. According to Djabbarova, (2015:561), suss quant discussions and compromises resulted in changes to the draft charters of educational institutions, allowing for the teaching of various subjects in the languages of the peoples of Russia.

According to the compromise, a mechanism was developed by which the republican education authorities, alongside the federal ones, participated in determining the scope, and the structure (the list of subjects) of teaching in native languages with the Federal State Educational standards, later included in the Education Law (Federal Law, line 3, 2011; Rules on the development, February 24, 2009). Some experts evaluated this step as ‘a fairly reasonable compromise’ (Prina, 2011:63).

Educational reforms in Latvian and Estonian schools beginning in the late 1980s certainly included efforts to ‘improve’ teaching and learning. Nevertheless, a main thrust of educational policy in the Baltic in the 1990s and 2000s was a series of language reforms. Their primary purpose was to respond to the imperative of defining national identity and meeting the political conditions for joining the European Union (Malinsky 2009:10).

3.7.2 Educational change management in America

The United States (US) is one of many countries undergoing significant changes in educational institutions, particularly in K-12 settings. Most pronounced among these is the impact of unprecedented demographic changes in the curriculum and instruction provided in US schools (Garcia-Huidobro, Nannemann, Chang-Bacon & Thompson 2017:268).

Historically, US education policies have been continuously debated and revised to reflect a continuously changing society's views regarding appropriate methods of educating learners and the overall goals of education. Reform groups and federal and state government agencies have been wrestling with the issue of education standards and whether there can or should be common standards for all educational instruction and achievement (Aydin, 2017:189).

In accordance with Ravitch (2011:49), since the Brown *vs*Board of Education decision in 1954, which banned racial segregation in schools, the basic principle of American education has been equality of education opportunity. Starting in 1965, Congress passed legislation to send extra resources to districts that enrolled the poorest children resources that benefited children of all races. In 1975, Congress mandated special education for children with disabilities. It promised to pay 40 percent of the cost but has never followed through.

As stated by Dee and Jacob (2010:150), in 2001, after the election of President George W. Bush, Congress passed a law called *No Child Left Behind* (NCLB), which changed the federal law in education. Instead of seeking equitable funding, Congress decided that it would impose a massive programme of school reform based on standardised testing. The new law required states to test every child in reading and math from grade three through grade eight. The theory behind NCLB was that teachers and schools would try harder and see rapid test score gains if their test results were made public. Instead of sending the vast sums of money that schools needed to make a dent in its goal, Congress simply sent testing mandates to every school. It required that every child in every school must reach proficiency by 2014 or the school would be subject to sanctions. If a school failed to make progress over five years, it might be closed or privatised or handed over to the state authorities or turned into a charter school.

Educators knew that the goal of having all or the majority of learners reaching proficiency was wildly unrealistic, but no one asked their opinion, so they kept quiet. Over the past decade, districts and states have committed billions of dollars to testing, test preparation materials, and data systems. The results have been meagre. NCLB was a radical plan of action, particularly because there was no reason to believe that annual tests coupled with fear and humiliation would produce the miraculous goal of 100 percent proficiency, a goal not reached by any nation on earth. The law treats public schools as though they were shoe stores. Secretary of Education

Arne Duncan recently predicted that more than 80 percent of American schools would be declared failures by 2012 based on federal standards. Setting an impossible goal, providing inadequate resources to pursue that goal, and then firing educators and closing schools for failing to reach the 100 percent proficiency is a cruel and unusual punishment (Chicosky 2015:3).

Ravitch (2011:50) further states that, in 2009, the Obama administration launched its own radical school reform plan called *Race to the Top*. In some ways it is worse than the NCLB. Like NCLB, it assumed that higher test scores mean better education, even when those scores have been purchased by intensive test-prep activities (what is misleading about this kind of gain is that aggressive test-prep activities may list scores without improving learner's knowledge or skills). More than NCLB, *Race to the Top* blames teachers if schools test scores don't go up, which has demoralised millions of teachers. The programme angled nearly five billion in front of cash-hungry states, which could become eligible only if they agreed to open more privately managed charter schools, to evaluate their teachers by learners' test scores, to offer bonus to teachers if their learners got higher test scores, and to fire the staff and close schools that didn't make progress.

Dee and Jacob (2010:150) opine that NCLB has been extremely controversial from its inception. Critics charge that NCLB has led educators to shift resources away from important but non-tested subjects, such as social studies, art, and music and to focus on instruction within mathematics and reading on the relatively narrow set of topics that are most heavily represented on the high-stakes tests. In the extreme, some suggest that high-stakes testing may lead school personnel to intentionally manipulate learners' test-scores. Although there have been hundreds of studies of test based accountability policies in the Unites States over the past two decades, the evidence on NCLB is more limited, both because it is a newer policy and because the national scope of the policy makes it extremely difficult to find an adequate control group by which to assess the national policy.

As determined Garcia – Huidobro et al (2017:270), because NCLB was introduced simultaneously throughout the United States, many observers have turned to state and national time-series trends in learners' achievement to assess its impact. For example, several studies have noted that learners' achievement, particularly as measured by state assessment systems, appears to have improved both overall and for key sub-groups since the implementation of

NCLB. Others, however, argue that changes in learners' performance on high-stakes state tests can be highly misleading when state strategically adjust their assessment systems and teachers narrow their instructional focus to state-tested content. Most testing experts agree that it is wrong to judge teacher quality by learner test scores. Piece by piece, the entire American public education system is being redesigned in the service of increasing scores on standardised tests of basic skills.

Ravitch (2011:51) postulates that twelve years of rewarding children for picking the right answer on multiple-choice tests is bad education. It will penalise the creativity, innovativeness, and imaginativeness that has made America great. As the federal government retches up the stakes attached to the tests, they become an even great burden on learners, teachers, and the quality of education. In addition, the higher the stakes, the less reliable the tests becomes as measures of learning. When everything rides on test scores, schools will encourage "teaching to test" and even cheat to avoid being closed.

3.7.3 Singapore educational change management

Based on Tan (2008:112), the curriculum review process in Singapore was based on an eight-to-ten-year cycle. This has recently been reduced to six years, with a mid-term review at the end of the third year. The aim is to ensure that the curriculum is forward-looking, remains relevant in the context of the Singaporean economy, and meet the needs, cognitive abilities and interests of learners.

Curdt-Christiansen and Silver (2012:246), posit that Singapore is a multi-ethnic and multilingual country with a population of 5.08 million. Operating with a national syllabus and examination system, Singapore has a centralised educational structure that allows some space for school-based initiatives in day-to-day instruction e.g. learners are mixed when they enter Primary 1 regardless of home language or English proficiency, although schools 'band' learners for different subjects in subsequent years based on examination results for the educational system as a whole. Numerous initiatives have been launched under the overarching framework of *Thinking schools, Learning Nation* of 1997 and the related *Teach less, Learn more* of 2004. These initiatives have the overriding objective of preparing a workplace with skills necessary to 'create new knowledge' for the twenty-first century. Importantly, the initiatives aim at transforming

learners from passive to active learners and encouraging teachers to implement a learner-centred pedagogy which fosters autonomy and thinking skills (Curdt-Christiansen & Silver, 2012:247).

Tan and Gopnathan (2000:6), contend that three curriculum reviews were launched in Singapore since 1997. *Thinking Schools, Learning Nation* focused on developing all learners into active learners with critical thinking skills and developing a creative a critical thinking culture within schools. Master plan for Information Technology in Education was also launched in1997. It was an ambitious attempt to incorporate Information Technology into the teaching and learning in all schools. This initiative specified a target of up to 30% for the use of Information Technology in curriculum time for all subjects by the year 2002.

Choy (2011:6) says there are also reforms specific to English language/literacy instruction. These include the English language syllabus 2010 (ELS, 2010) and the *STELLAR Curriculum* piloted in 2006 and progressively rolled out to all schools while both reforms emphasise the ability to communicate effectively in English both in oral and written form, STELLAR (More, 2008) accentuates the use of authentic literature and promote these goals:

- Provide an enjoyable experience with books for all children;
- Encourage all learners to practice oral communication in non-threatening situations;
- Listen to, read, view, enjoy and understand a range of texts;
- Speak, write and make presentations to suit purpose, audience, context and culture;
- Think through interpret, evaluate and respond to a variety of texts and media; and
- Interact effectively with people (De souza 2018:31)

Tan, Koh & Choy (2016:134) report that STELLAR provides schools with instructional materials, and teaching units. Professional development for STELLAR is provided to all schools emphasising the recommended teaching strategies: Shared Book Approach, Modified Language Experience Approach and Learning Centres. These strategies have been adapted for Singapore's needs to include, e.g. more explicit grammar instruction and worksheets for assessing learner language skills on a frequent basis. The curriculum overall harkens back to the Singapore Reading and Acquisition Programme (REAP) of the 1980s. This shifting back forth with old and new epistemological paradigms reflects continuing pedagogical tensions between issues such as the role of explicit grammar and mastery of 'correct' linguistic code, skill-based instruction and a more meaning-based communication approach, and effective and efficient ways to teach children from 'different home/language backgrounds in mixed classes. The shifting paradigms also reveal

policy-pedagogy tensions between teachers' understanding of the proposed reforms and their cultural beliefs related to teaching and learning (Curdt-Christiansen & Sliver, 2012:247)

3.7.4 Tanzania's Educational Change Management

In keeping with Rajabu, Buretta & Swai (2008:56) Julius Kambarange Nyerere, the former and founding president of the United Republic of Tanzania, is known not only as one of the world's most respected statesmen and an articulate spokesman of African liberation and African dignity but also as an educator and an original and creative educational thinker. Nyerere's views on education can be located within the nationalistic ideological view of education in Africa. Characteristic of this position is the view that education has to reflect and sustain national priorities, aims and aspirations. In addition, it has to translate the national ideology into curriculum (Nasongo & Musungu, 2009:111).

In line with the above view, Nyerere's publications articulate education for independent Tanzania and by extension, for Africa. Such publications include: education for self-reliance (1967), education never ends (1969/70), our education must be for liberation (1974) and adult education and development (1976). A basic theme that runs through all these writings is that of education for self-reliance. Later, he reflected upon this view and modified into education for liberation (Swarts & Mwiyeria 2010:68).

3.7.4.1 Education for Self-Reliance

The term self-reliance comprises two distinctive words "self" and "reliance". Self in ordinary usage refers to the human being as "the agent" or the "I" of the individual's conception of his soul and body as being distinct from other souls and bodies (Blackburn, 1994 cited in Nasango & Musungu, 2009:112). "Reliance" points to a state of being that is dependent on something or somebody else. It refers to a bond of relationship where subject "A" clings on to subject or phenomenon "B" for its being, "A" and "B" in this case embrace an inter-subjective relationship. Viewed together self-reliance refers to a situation where the embodied subjectively, that is, the human person relies upon himself, for his being. Having defined "self-reliance" in general terms, let us now explicate Nyerere's idea for-reliance (Major & Mulvihill, 2009:16)

In education for reliance (1967), Nyerere comprehensively presents the need for a radical definition of organisation and content of education in Tanzania. The need arises from his diagnosis of the major pitfalls of inherited colonial education. Essentially, colonial education was founded upon the principle of capitalism. As such, colonial education entailed several features. First, it tended to promote a class of elites, thus encouraging inequality and class structure. Second, it divorced its participants from society and discouraged them from unconditional service to the community. Third, it tended to be formal, stressing book learning and dispensing traditional informal knowledge and wisdom. Finally, it tended to be unproductive, discouraging learners from hard work. Post-independent education in Tanzania simply impeded the colonial aims and curricula, and thus enhanced its subsequent ideas (Wabike 2015:22)

3.7.5 ZIMBABWE'S EDUCATIONAL CHANGE

In line with the government's Nziramasanga Commision (1999), the Ministry of Primary and Secondary Education reviewed the Primary and Secondary Programmes to meet the targets of education in the context of Zimbabwe Agenda for Sustainable Socio Economic Tranformation (ZimAsset) which is a national obligation of government of Zimbabwe (Gondo, Matururire, Mutopa, Tokwe, Chirefu and Nyevedzanayi (2019:60) A curriculum review process was initated in November 2014 culminating in another curriculum whose implementation started in January 2017 (Dhlomo and Mawere 2021:106).

3.7.6 Learning areas

Zimbabwe Ministry of Primary and Secondary Education Curriculum framework for Primary and Secondary Education 2015:2 provides learning areas. The CBC framework outlines the following learning areas for three levels:

Infant School

Indigenous language (as a medium of instruction Visual and Performing Arts(expressive Arts)

Physical Education

Mass Displays

Mathematics and Science

Family and Religious Studies and

Information and Communication Technology

Junior Level

Languages: Mathematics

Heritage and Life-skills Orientation Programmes (LOP)

Science and Technology,

Agriculture; Information and Communication Technology;

Visual and Performing Arts

`Family Religious and Moral Education, and

Physical Education Sports and Mass Displays.

Forms One to Four

There are the optimal study areas. Seven learning areas are required but learners will select additional learning areas based on their interests. Learning areas offered for form one to four are as follows:

Heritage Studies (Embracing Zimbabwe's Constitution),

Mathematics: Pure Mathematics, Additional Mathematics and Mechanical Mathematics;

Sciences: Physics, Chemistry, Biology and General Science, Geography; Computer Science

Humanities: History, Religious Studies, Sociology and Economic History; Literature in Indigenous Languages and in English, Indigenous Languages and Foreign Languages such as Swahili, French, Chinese, Portuguese

ICT: Computer Science

Agriculture: Agriculture Engineering, Animal Science, Crop Science, Horticulture

Commercials: Accounting, Commerce, Commercial Studies, Economics, Business and Enterprise skills;

Practical Subjects: Wood, Metal, Food, Textile Technologies, Home Management and Design.

The introduction of new learning areas in primary schools such as Information and Communication Technology (ICT), Guidance and Counselling (G&C), Science and Technology, Visual and Performing Arts, Family Religious and Moral Education (FAREM), Heritage Studies, Agriculture and Physical Education require special infrastructure in the form of rooms (Kageler 2015:10).

The CBC supports learners to build a strong scientific and technological mindset and to prepare them for the evolving needs of the twenty-first century. It has elements of adoption of a philosophical approach Ubuntu/Unhu/Vumunhu (i.e self-respect and respect for others) along with an emphasis on STEM and ICT for secondary. Additionally, humanities, agriculture, technical/vocational business and commercials fields among other cross-cutting themes such as civic, environment, finance, human rights, health, HIV/AIDS, climate change, and disaster risk reduction encompass a holistic education. The introduction of life-skills orientation programme (LOP), continuous assessments and learner exit profiles are some of the other key features of the new framework. To ensure successful rol-out, MOPSE developed school packages in the form of CDs which contained the new curriculum framework document, while few schools received these packages, others did not have access to them (Narrative Report 2014:46).

3.7.5.2 Assessment

In line with Kurebwa & Nyaruwaka (2013:338) assessment of learners is a way of finding out what learners know, understand and do. There are various ways of assessing learners. In Zimbabwe, Primary and Secondary Education was biased mainly on summative assessment where learners were subjected to external examinations from ZIMSEC at the end of the course. The CBC introduced continuous assessment or teacher developed assessments contributing 30% to the overall mark of the learner in a learning area. Continuous assessment is a way of evaluating learners' performance done by teachers at the school using tests, assignments or projects.

According to the Ministry of Primary and Secondary Education's, Teacher Training Manual Professional Standards, (2015:50), teacher developed assessment provides feedback on what and how learners learn in time to modify or personalise instruction. Continuous assessment also

allows teachers to assess a broad range or traits, skills and abilities making assessment itself a learning experience and deepen learner engagement in content.

3.7.5.3 Learning resources

Learning resources are a crucial component of curriculum implementation. The CBC in Zimbabwe calls for the use of ICT resources such as computers as tools, tutee and tutors. Computers can be used by both learners and teachers as resources in teaching and learning (Nyatanga & Jani 2014:11). Guided by the Education Amendment Act Chapter (25:4) of 2006, SDCs are supposed to take part in the financial management of all funds and resources of the school. SDCs make effort to avail teaching and learning material. Mafa (2011:21) conducted a study and observed that most school buildings in Zimbabwe are failing to meet the educational needs of learners.

3.7.5.4 Training of teachers

Skills and knowledge are critical on how to impart new knowledge in the implementation of curriculum reviews. Teachers are therefore supposed to be endowed with the requisite knowledge and skills on how to implement the CBC. Teachers as curriculum implementers must possess expert power, have special power over those who need their knowledge (Smit, Cronje, Brevis & Vrba 2011:47). Teachers need professional development in order to cope with the demands of the CBC. In Zimbabwe and many countries in Sub-Sahara Africa, skills shortage has been a problem (Nyatanga & Jani 2014:19). In the light of the 2015 CBC, the Zimbabwean education system has a critical shortage of requisite skills in schools. The CBC ushered in a new dispensation which saw the government investing heavily in the learning and teaching of science subjects at the expense of training of teachers to implement the updated curriculum (Chinaka 2019:26).

3.7.5.5 Spiral Curriculum

Government of Zimbabwe (GOZ) Ministry of Primary and Secondary Education (2017:18), indicates that syllabi for all levels were developed by national subject panels made up of specialists drawn from universities, teachers' colleges and polytechnics, working together with

classroom practitioners (teachers) and supported by Education officers. The respective subject panels researched on the content that was suitable for every level and drew on their pedagogical training. The organisational of concepts in the CBC adopted a spiral approach from the known to the unknown and that allows proper mastery and development of competencies by all learners (Ngwenya 2020:164). For instance the topic on water is taught from Early Childhood Development (ECD) up to University level. As the learner graduates from one level to the other, the concept on water also becomes complex.

3.7.5.6 Summary

The inception of the CBC in 2017 required a lot of resources for its successful implementation. It is worth noting that the sudden introduction of the CBC came in at a time when the Ministry of Primary and Secondary Education was experiencing inadequate funding from the government caused by economic instability in Zimbabwe. Where the school fails to have resources, effective implementation of curriculum reviews is compromised.

3.8 MITIGATIONS TO CHALLENGES OF IMPLEMENTING REVIEWED CURRICULA

Implementation is explained as putting new ideas into practice. It involves a transition period in which implements in the context of the school (teachers) becomes increasingly *'skilful, consistent and committed'* in their use of a curriculum review (Klein & Sorra, 1996:1057). If implementation is looked at as a continuum it can range from avoidance of the use of curriculum review (non-existent use) to superficial or partial use, to skilled, enthusiastic and consistent use.

3.8.1 Effective leadership

Effective leadership is key to creating effective implementation of curriculum reviews within an organisation. Good subject sectors or categories or departments and curriculum areas should have an effective middle manager who is a specialist in their field, who leads from the front by

setting an example of hard work, flexibility, responsiveness and commitment. Effective school managers have the ability to listen and importantly hear what is being said, have developed excellent monitoring and catching skills and are able to provide feedback to teachers in a constructive and supportive manner. School managers who undertake consultation as merely lip-service rather than genuinely to gain feedback to improve systems, procedures do not contribute effectively to successful implementation of curriculum reviews (Jones & Duckett, 2006:28). School managers are responsible for leading the implementation of the curriculum reviewer. In view of this, Fullan (2007:45), stresses that in order to become experts in educational change, school managers must become skilled agents of change. If they become skilled change agents, school managers could make a difference in the lives of learners from all backgrounds and by doing so ensure effective implementation of the curriculum reviews. If curriculum reviews have to be implemented as intended, school managers should be equipped with the necessary methods and techniques of how curriculum reviews should be implemented and to prepare teachers, parents and learners for these reviews. Effective leadership thus plays an important role in the implementation of curriculum reviews (Kobuoe, 2006:5).

3.8.2 Resources and curriculum reviews

The availability of new resources has the power to influence the direction of curriculum reviews. Kigwilu & Akala (2017:371) says the availability of new resources like textbooks and the provision of laptops to learners and interactive whiteboards in the classrooms will lead to effective implementation of the curriculum reviews. If these physical resources are complemented by financial resources, they result in effective curriculum change (Bandele 2012:10). Professional development is needed because simply providing new resources without investing in teacher education and training may completely fail to bring about the envisaged curriculum change. Effective implementation of curriculum reviews is likely to take place when it is planned effectively, within a feasible lead-in time. This includes costing the process in terms of resources and time for example teaching staff may need time to interpret changes and make adjustments.

Selecting objectives that are feasible and sustainable within the constraints of available human, financial and technological; resources would be the first step that would lead towards assuring effective implementation. A review study of innovation by Fullan and Promfret (1977:337) found that many curriculum reviews involved as their main objective an *'increase in learner*

autonomy and control over their classroom learning situations and foster learner directed inquiry models.' This requires learners who think independently and be willing to seek additional information. Teachers are asked to think of learners as being capable of making their own choices. This implies that learner/teacher roles have to change with the teacher being more of a facilitator than a director of learning. This validates the tenets of complexity theory that human beings have an inherent propensity to power themselves up. If learners are considered as important stakeholders in curriculum review implementation, their contribution will facilitate effective implementation of curriculum reviews.

What countries embarking on curriculum reviews have to learn is that attention of reviewers should be focused holistically on the design of the curriculum from teacher training down to the mode of examination. According to Webster (2012:1) curriculum review can be reinforced if changes in the examination items closely reflect learning goals emphasized by the curriculum. This claim is supported by the changes made to Israel education system in the 1960s and 1970s. Because they realized the importance of assessing all objectives which appear in the curriculum, curriculum developers were allowed to develop their own examination that would align with the curriculum. They developed an examination format that ensured that skills were taught, and that meaningful practical work was done.

Facilitators have to be aware that they may have different concerns as a new curriculum is implemented. At the start of the review, most tend to have concerns at the 'self' (informal and personal stage). This includes even the experienced teachers as changes make them novices again. Dasman (2011:69) warn that change facilitators should understand and be empathetic for teacher's concerns and their intervention strategies should be aligned with teachers concerns. Unfortunately, this is where the root of the problem lies because if change facilitators do not know what teachers' concerns are, then their in-serve training will not necessarily meet the teachers' needs as Messah & Mucai (2011:89) points out that teachers will find the training irrelevant as it does not answer the questions they are asking.

3.8.3 Training of curriculum implementation facilitators

In line with (Munikwa 2011:6) it is important to provide training and support to teachers, school managers and parents in order to achieve effective curriculum implementation. Subject specialists need to support teachers and undertake a monitoring process in order to comprehend

what is happening in classroom situations. There must be a close connection between school improvement work and initial teacher training. Teachers must be encouraged to form clusters (intermediate phase cluster) because by doing so, they can share ideas and experiences regarding the curriculum implementation by reviewing their teaching style, teaching resources and school functions. The teacher training and teacher support play an essential role on how to implement the curriculum review by influencing teachers' understanding and their classroom practices (Kirkgoz, 2008:2). Skills and training should be provided in order to meet the requirements of implementing curriculum reviews.

The next step is to ask teachers whether they think the curriculum review package is appropriate, to identify only gaps in the course portfolio. Many teachers feel frustrated with curriculum reviews but may fail possibly through fear to respond to any challenges that they may encounter during the implementation process (Jones & Duckett, 2006:29). Carl (2009:133) projects that successful implementation of any programme is hinged on the extent to which implementers are informed and have been prepared for the programme and whether they are prepared to associate with it. This scenario would enable teachers to gradually get to grips with their new roles and responsibilities. Such a system may be ideal for effective curriculum review implementation (Munikwa, 2011:7).

For successful implementation, changes have to be introduced to the users effectively and this requires knowledgeable and experienced change facilitators. Fullan calls for empathy towards people in authority positions who are given the responsibility of leading implementations they may not understand. Their lack of understanding may be because, one, the innovation was not well developed; two, they may not have been involved in deciding on the change and three; they may not have received adequate orientation or training themselves (Roehrig, Kruse & Kern 2007:887).

Teachers are key in the successful implementation of curriculum reviews as they are the means used to turn curriculum reviews into classroom realities. Teachers are expected to adopt the new ideas and implement them in their teaching i.e. change in curriculum requires change in teacher's practice. These demands put strain on teachers as it requires them to change their practice and resume the role of 'novice' again (Carl, 2009:135).

3.8.4 Seek the view of learners

The learner's voice is an important means of obtaining their views about the curriculum review and providing an insight to understanding their overall perception. Usually learners are consulted during the curriculum review process. Thereafter, learners are not consulted on the curriculum review package. Complexity theory suggests feedback is a very important principle which is vital in successful implementation of curriculum reviews (Jones & Duckett, 2006:33).

3.8.5 Team building to promote effective implementation of curriculum reviews

There are very few organisations, including educational institutions where decisions are made by one person. Successful implementation of curriculum reviews is as a result of a collaboration of a team of people from different backgrounds. These individuals possess various degrees of unique talents, styles and personalities when interacting successfully these individuals who may be subject teachers, heads of departments or school managers will pool their ideas, make judgements and map a way forward (Jones & Duckett, 2006:34). Collaboration which the authors stress in team building is also one of the tenets of complexity theory which promotes complementary productivity which eventually leads to successful implementation of curriculum reviews.

3.8.6 Make implementation of curriculum reviews a priority

According to Jones and Ducket (2006:36) giving high priority to the implementation of curriculum review is the first step to creating an environment where effective change can take place. The school managers need to be committed to the new initiative and demonstrate its commitment to staff. Saying the implementation of curriculum review is a high priority is one thing demonstrating it is quite another. The daily and visible actions of school managers set the tone of all curriculum review initiatives, whether positively or negatively. School managers need to communicate and demonstrate their priorities clearly. This is in line with one of the tenets of complexity theory that privileges communication as a vital component for the smooth running of any curriculum review package.

According to Pansiri (2014:2), the complexity theory perspective shows that successful implementation of curriculum reviews in a school depends on a variety of social forces from within and from outside the school. The level of interaction that people engage in is critical.

The new knowledge that people's interaction produce as individuals and as a group is fundamental. The new solutions that emerge from interaction and new knowledge are essential.

3.8.7 Involving external partners in curriculum reviews

Institutions that have succeeded in implementing curriculum reviews have had the support of many individuals and organisations. School managers should raise the awareness of parents/carers to the curriculum review initiatives and involve them at every opportunity. They need to gain parents' support in obtaining the commitment of learners to play their part in the implementation process. School managers need to use the mother who works in a travel urgency, the father who is a mechanic, a brother who is a medical doctor and a sister who is a civil engineer to make valuable contributions to the delivery of a skills-based curriculum (Jones &Ducket, 2006:35).

The level of ownership of the solutions by the people interacting is a key factor. The degree of critique and questions that people raise significantly influence the process of curriculum reviews. To ensure successful implementation of curriculum reviews, one therefore needs to create highly collaborative and networking systems that actively engage people to confidently deal with the unfolding uncertainties. Schmidt and White (2004:209) argue that, "Successful implementation of curriculum review depends on the people engaged." The implementation of curriculum reviews is inherent in the people's interaction hence the need to lead by constantly reinforcing and engaging people into active and meaningful interactions.

3.8.8 Addressing teacher perceptions about the reviewed curricula

If we view the changes that teachers are required to make in their practices as behaviours, then examining theories of behavioural change and factors affecting such changes we may be able to identify factors which might inhibit curriculum reviews. One such theory is the Theory of Planned Behaviour (Webster, McNeish, Scott, Maynard & Haywood, 2012:2).

The Theory of Planned Behaviour emphasises the influences of traditional norms (accepted beliefs and practices) as well as individual's beliefs and attitudes on their intentions to change.

Their intentions in turn affect their behaviours. Another factor that can influence teacher's union to change is their perceived behavioural control. Perceived behavioural control is concerned with the extent to which people believe they can successfully perform certain behaviours.

Perceived behavioural control has much in common with the concept of self-efficiency. Self-efficiency refers to how teachers assess their competencies according to the standards teachers have set for themselves, such as attainment of their goals exhibited through learner performance, and feedback from learners, peers and parents found that teachers perceptions of their self-efficacy are related to successful implementation of curriculum reviews as positive perceptions are associated with increased learner learning and higher percentages of programme goals being achieved. They found that teachers' efficacy have been correlated with their capabilities, willingness, commitment and motivation to implement curriculum reviews (Stein & Wang 1988). The sense of achievement of goals develops a positive perception of self, which influences teacher motivation and in turn influences future behaviour and learning of learners (Webster *et al.*, 2012:5)

Teacher self-efficacy regarding implementing curriculum reviews has important implications for teachers who are expected to make changes, because teachers hold different beliefs concerning constraints imposed by the school such as covering the syllabus and preparing for examinations. This creates a tension between the need to cover the syllabus and teaching for understanding.

To ensure successful implementation of curriculum reviews, are supposed to be in-serviced and staff developed as well as equipped to enhance competence during the implementation process. Once curriculum reviews are empowered, they are liable to perform at their best as they will be fully equipped materially and intellectually.

3.8.9 Perceived value for curriculum review

'Perceived value' refers to how teachers perceive various components of the programme they are going to implement. If the goods and values of the programme are not seen to be in line with those of the teacher, then the chances of the curriculum reviews being superficially implemented or not being implemented at all, are very high. On the other hand, if the suggested values are found to be congruent with teachers' beliefs, then they are more likely to be implemented.

According to Webster *et al.* (2012:8) perceived values of curriculum reviews are found to be related to:

- Whether teachers believe the programme will work and have a positive impact on their learners.
- Whether the proposed changes could lead to teacher's professional growth and,
- The values the community places on the curriculum reviews.

3.8.10 Proper training of teachers

Empirical evidence from a study done by Webster *et al.* (2012:9) indicate that well-trained teachers were better able to understand the complex spiral structure of their science curriculum, while the spiralling was found to be a confusing repetition of topics by under trained teachers

Training of teachers is a crucial step for successful implementation of the curriculum reviews, so that teachers understand what the changes are and how they can put them into practice. The study by Stein Wang (1988) showed that teachers can successfully implement required changes if they are given appropriate training that provides necessary knowledge and skills development. Training also helps foster teachers' interest and commitment to continue using gained expertise. Teachers require training in the skills required by new practices and '*time and space are important as teachers adjust their attitudes and beliefs and more through the psychological processes associated with change,'* (Borko 2004:9).

Oliver & Reschly (2007:2) warns that it is important to take teachers level change into consideration. In Beeby's experience teachers cannot all be expected to reach the same level of development even when they are given training and support. Oliver & Reschly (2007:3) put teachers into four progressive stages moving from the lowest that when given training, teachers in each stage can only reach a certain level of change, and that only a few of the very good teachers can manage to reach the highest level of attainment. The implication of this is that expecting teachers at lower levels of qualification to implement learner centred approaches is not a realistic demand for teachers who lack the knowledge and skills.

Teachers should also be given continuing support and constant monitoring of their implementation progress. McEwan (2001:111) indicate that teachers often receive short in-

service training to inform them about curriculum reviews in the form of workshops which have very little impact on classroom practices. Webster *et al.*, (2012:10) assert that although teachers seemed happy with content of the in-service education provided, it had little impact because the course was too short to be effective. Successful implementation depends on the existence of a well-trained workforce.

3.8.11 Provision of resources for teachers

Teachers support materials serve as a compass that gives teachers direction on how to enact the curriculum. According to Webster et al. (2012:15) teacher support materials are an integral part of teachers' daily work as they support classroom instructions. Webster *et al.* (2012:16) point out that curriculum material can play an important role in the implementation as they clarify to teachers the implications of curriculum reviews and how they can be implemented. This is very important in the early stages of implementation. Having a clear direction on how to implement the curriculum review helps reduce early implementations concerns of teachers. Sitati, Kennedy & Ndirangu (2017:44) indicate that support materials can be educative as they provide support for teachers to think about the context of their classrooms and to plan and structure learners' activities.

Ottervanger (2002) sees teacher support materials as catalysts of curriculum change. In chemistry catalysts are important as they reduce the activation energy needed to start chemical reactions. In a smaller manner, well-prepared teacher support materials can catalyse implementation by reducing the load and effort expanded by teachers as they make the changes expected of them. The support materials can help teachers overcome the barrier of uncertainty, reduce the amount of work involved in implementing the new approaches and reduced stress levels. They can also orientate teachers to new subject matter and new teaching methods.

Suitable policy documents, textbooks and teachers' guides can provide support for teachers, but policy documents are often less accessible for teachers than the other resources. Just as McEwan (2001:111) carefully constructed syllabus documents make teachers work easier facilitating changes in schools. Rutomoi & Too (2012:175) found that use of specially designed teacher materials with concrete procedural suggestions on how to execute the curriculum review played an important role as they led to higher degree of implementation. The problem, however,

is that few review-based curriculum materials have been explicitly designed to support teachers' learning.

Although textbooks are support materials for learners they can also serve as support documents for teachers. Sackes, Trundle, Bett & O'Connell (2010:220) state that textbooks are important support documents for teachers, as textbooks help them plan their lessons and construct questions and provide work for their learners. As specified by Webster et al. 2012:18), for a curriculum review to be successful it has to be well resourced with good quality learning materials. Textbooks play an important role in promoting learner involvement in lessons and have a major impact on achievement in most subjects as they serve as the main source of authoritative information accessible to most learners. Referring to Rutomoi & Too (2012:177), textbooks can mediate how learners engage with the content to be learnt. Research has shown that presence of appropriate textbooks, although costly, has positive implications for learners' learning. However, if materials are not of good quality or do not accurately reflect the principles of the curriculum review, their production may be counterproductive.

3.8.12 Bottom up strategies

As stated in Feist, Bodner, Jacobs, Miles and Tan (1995:140), bottom up strategies are other avenues for organisations to follow in bringing about successful implementation of curriculum reviews. Teams using this approach largely end up working independent of each other, crafting solutions to their pressing problems. This approach usually results in satisfying short-run experience with major improvements being made and good results achieved by many of the individual teams. Commitment is much higher with this approach than a top-down strategy. However, lacking an overall context and without collaboration across the entire system, successful implementation with good solutions is limited to those problems which exist exclusively within separate functions, areas or levels (Kobuoe, 2006:81).

3.8.13 Representative cross-section strategies

Suraprajit (2019:459), suggests a representative cross-section strategy which involves recruiting representatives cross-section of the actual people ultimately affected by the curriculum review to help decide which changes are necessary and how they can most effectively be implemented. This collection of people is often covered by consultants such as industry and commerce, school

managers, (who take the lead in the implementation of the curriculum review) teachers, (who are curriculum review) parents and learners among others. These groups gain an extensive understanding in the overall context of the curriculum review effort, develop a deep and genuine commitment to this cause, and collaborate with other stakeholders in the education fraternity.

3.9 RELATIONSHIP BETWEEN CURRICULUM REVIEW AND MANAGEMENT OF EDUCATIONAL CHANGE

Curriculum organises all learning experiences to give learners the most benefit at each level of their school career. The curriculum is socially and culturally constructed, making the study of material culture (document) related to the curriculum necessary, to fully understand the system of meaning related to curriculum development (Mulenga 2019:3).

On the other hand, educational change involves change in practices which alter instructional programmes, in an attempt to provide better education for the clients. According to Fullan (2007:20) the essence of educational change is putting something new into practice. In most situations, educational change occurs along several dimensions. These dimensions are, for example, new materials, curriculum materials or technologies, new teaching approaches (teaching strategies or learning activities) and alteration of beliefs (pedagogical assumptions or perceived relevance). Educational change restricted to one of these dimensions, for instance the use of a new textbook or materials without any alteration of teaching strategies, refers to a minor change. If reviews cover three dimensions of potential change, it refers to more complex reviews (Carlyon &Branson 2008:108).

In general, educational change can be initiated from two distinct sides. One form refers to educational change initiated by policy makers, for example, in Zimbabwe policies are crafted by the Ministry of Primary and Secondary Education with researchers working in isolation, attempting to find ways of assisting schools to implement a particular innovation. This strategy is labelled as ‘top down,’ ‘from above’ or ‘imposed change.’ The other form of educational change is initiated by teachers and often undertaken with outside support. This form is called “bottom up” “grass-roots” or “voluntary change” (Branson 2010:42)

Complexity theory influences management of educational change as well as implementation of curriculum reviews. Implementation of curriculum reviews and management of educational change are complex processes which can be explained by complexity theory. Implementation of curriculum reviews is a process in managing educational change.

3.9.1 Components of curriculum reviews

From the theoretical framework and the literature study, five key components necessary in implementing curriculum reviews were derived. These components are communication, interaction, feedback, self-organisation and connectedness.

3.9.1.1 Communication

Communication is the lifeblood of an organisation (Marsick, 2000 cited in Morrison, 2002:144). Communication is both intersubjective and respects the urgency or freedom of participants. Communication engenders dialogue. There are different channels of communication which should be kept independent of each other. Communication is decentralised, distributed and connected. This ensures connectedness, collaboration feedback and interaction, all of which are critical in the implementation of curriculum reviews. The sharing of information which is the whole idea of communication brings all parties involved in the implementation of curriculum reviews together. The school manager should communicate the vision of a curriculum in order to make all stakeholders aware of the purpose of implementing a curriculum review.

3.9.1.2 Interaction

The level of interaction that people engage in is critical. Through interaction, people produce new knowledge as individuals and as a group. New solutions also emerge from these interactions which promote ownership of the solutions. Through interaction people have a forum to critique and raise questions.

Interaction enhances connectedness, collaboration and feedback which are key elements in the implementation of curriculum reviews (Turner & Baker, 2019:8). Through interaction, all parties are taken on board in the implementation of curriculum reviews. The school managers should

create forums which promote interaction by curriculum review. Cross pollination of ideas is essential for effective implementation of curriculum reviews.

3.9.1.3 Feedback

If elements of the system interact, feedback must occur. Feedback can either be positive or negative. Negative feedback brings diminishing returns (Morrison, 2002:26). Negative feedback is regulatory, it signals deviation, causing interventions whenever too much deviation occurs. This implies that school mangers must find the appropriate systems, people or resources to act as thermostats in sensing the environment and making adjustments.

On the other hand, positive feedback brings increasing returns. Through feedback, connectedness collection of knowledge from a distributed, dispersed system and effective communication systems, successful implementation of curriculum reviews will be assured. The school manager is expected to give positive feedback to curriculum review so that they are motivated to implement curriculum reviews.

3.9.1.4 Self-organisation

Self-organisation implies agents interacting locally according to their own principles and intentions in the absence of the blueprint for the system (Stacey *et al.,* 2000:106). Self-organisation occurs in bottom up contexts where members have sufficient freedom for multiple interactions. In self-organisation environments, rules allow sufficient flexibility and continual adaptation. A self-organising system gives its members freedom and autonomy to recognise themselves in a participatory way within the parameters of the organisation on the understanding that members have an inherent propensity through their interactions to power themselves up.

Teachers as curriculum review should be empowered to self-organise themselves and work within the overall parameters of the implementation of curriculum reviews. Flexibility of rules in the implementation of curriculum reviews will promote creativity among members. The school manager therefore should accord teachers freedom and autonomy so that they work towards effective implementation of curriculum reviews.

3.9.1.5 Connectedness

Connectedness implies mutual relationships between individuals and teams, between teams, between subsystems and between the institution and its environment. Through connectedness in schools, learners are linked to families, teachers, peers, societies and groups. Teachers are linked to professional associations, other teachers, other providers of education, support agencies, social services, policy making bodies, finding bodies, the courts and police services (Morrison, 2002: 28). Connected networks are required in the implementation of curriculum reviews for they strengthen relationships among members.

Self-organisation through connectedness requires democratic process since curriculum reviews involve people. The school manager should ensure that all curriculum reviews stakeholders are connected so that they play their part.

From the theoretical framework and literature study, a proposed model for mitigating the challenges of implementing curriculum reviews is presented diagrammatically.

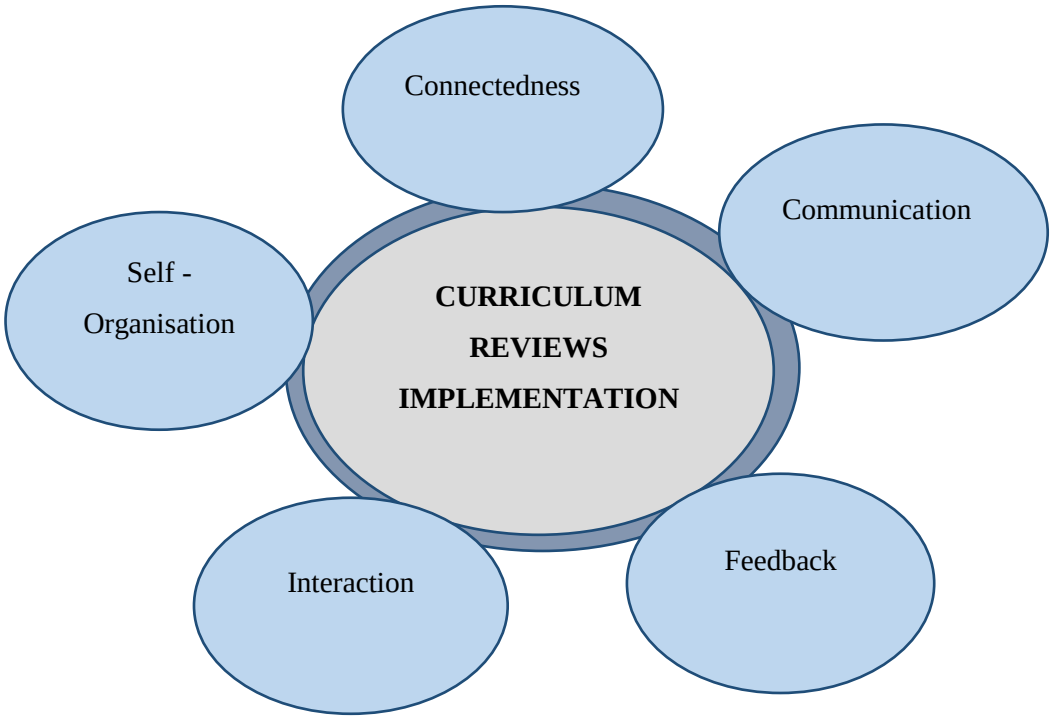

Figure 3.5: Components of Curriculum reviews implementation

3.10 CHALLENGES OF IMPLEMENTING REVIEWED CURRICULA

Curriculum reviews in Zimbabwean secondary schools or elsewhere face limitations emanating from the costs involved in enacting and implementing the reviews. Curriculum reviews tend to be more expensive than the programme they replace because of the cost of research, development of material and re-education of personnel. It is also affected by time variables and inertia within the education system itself. Qualified teachers are sometimes conservative, and they see change as a threat. Learners and the society also are part of the interested parties in curriculum reviews (Dziwa *et al.* 2013:317).

3.10.1 Overcrowded classrooms

In keeping with Makunja (2016:33), overcrowded classrooms hinder effective implementation of curriculum reviews. In such situations it is difficult for teachers to apply effective teaching approaches in the teaching and learning process. Under the circumstances, teachers resort to use of teacher-centred approaches such as lecture method. Teachers also fail to attend to individual learners with learning challenges. Overcrowded classrooms also increase the workload of teachers. Consequently, the teachers fail to use the learner-centred interactive teaching which facilitates successful implementation of curriculum review.

3.10.2 Low ability of learners

Low ability of learners is a big challenge to successful implementation of curriculum reviews. It is difficult to successfully implement curriculum reviews, particularly when the majority of the learners have a low academic ability. For example, some learners solely rely on academic material they get from their teachers; teachers are taken as the fountain of knowledge. Under such circumstances it is very difficult to effectively implement curriculum reviews which require learners' competence (Tambawal, 2009:13).

3.10.3 Learners' readiness to accept curriculum reviews

Learners do not like it when the teachers use participatory methods. They think that they are not being taught as they deserve. Most learners like spoon feeding and this problem emanates from

primary schools where they are taught everything without giving them an opportunity to construct their own knowledge (Komba & Mwandanji 2015:77)

According to Masarure in *The Zimbabwe Daily News* of 22 January 2017, "*Form 3 learners were affected most with the implementation of the curriculum review. The entry behaviour of learners in form three does not empower them to tackle new learning areas such as computers and pure science subjects. Teachers in the sampled schools revealed that they had not schemed because they do not have syllabi for the new curriculum. There is lack of preparedness for the teachers to implement curriculum reviews. Schools are also understaffed as new subjects have been introduced but a number of teachers' remained unchanged. Integrated Science teachers are now being forced to teach Physics, Biology and Chemistry".*

3.10.4 Top-down management which imposes on users

Curriculum reviews in developing countries tend to be large-scale, national initiatives and imposed from top by small groups of specialists. This was the case in Lesotho where the science panel members (a small team) were made up of subject specialists from the National Curriculum Development centre and other members from the education sectors. The assumption is that implementation will be unproblematic on that the review will be implemented more-or less as planned. One problem, as indicated by Rogan and Grayson (2003:1175) is that changes and curriculum review implemented through bureaucratically structured education systems tend to be far removed from the realities of most classrooms in developing countries. Curriculum reviews often require skilled, well qualified teachers who can understand and internalize the new approaches which are often not the case in real situations. As a result, problems manifest in the gaps between the intended curriculum (as expressed in policy document), the implemented curriculum (expressed by real life in schools and classroom practices) and the attained curriculum as expressed by learners' experiences. Bush (2008:12) warns that if teachers do not own curriculum reviews but are simply required to implement externally imposed changes, they are likely to do so without enthusiasm leading to possible failure. Bush (2008:12) also cautioned against a limited commitment and involvement of teachers when they have to follow the commands of others. According to Ahmad, Krogh and Gjotterud (2014:6), almost four decades have passed since ESR was integrated into the Tanzanian education discourse. Looking at the timeline from its inception to 2000s, Education for Social Responsibility (ESR) has shown mixed results. Between 1970s and 1980s many schools were built by community members who

were inspired by the self-help spirit. The link between school and community life was established during the decade. Unfortunately, this achievement was short lived.

Analyses of ESR design and implementation process revealed a number of conceptual and practical challenges first, a top down decision making process to introduce ESR, and how it had to be managed, was made at Central government level and trickled down the implementation ladder in the form of directives. The same trend was emulated at the school level. Learners had no voice in planning and evaluating Education for Social Responsibility (ESR) activities. Second, the concept was misconstrued and subsequently poorly implemented. Going to school was believed to be a panacea to escape the misery of farming and rural life (Ahmad *et al.,* 2014:6). Rogan and Grayson (2003:1190) however, believe the top down management can work as long as it is accompanied by continuous communication, ongoing teachers' development programmes, continuous monitoring and feedback and realistic timelines for implementation. Complexity theory castigates use of top down approaches in complex processes such as the implementation of curriculum reviews. Relationships and interactions in the implementation of curriculum reviews should be mutual not one way.

3.10.5 Lack of Explicitness Regarding the Changes Required

Pedzisai, Tsvere and Nkonde (2014:5) reveal that lack of clearly stated, known and agreed upon goals of implementation of curriculum review is one of the reasons that led to failure of many curricular in the 1960s. They further state that the extent to which a curricula review will be implemented as planned depends upon the extent to which users are clear about it. Pedzisai*et al.* (2014:6) warn that the receivers of implementation of curricula reviews will make their own sense of what is being communicated to them, if communication is not clear. Appropriate policy documents play an important role in helping teachers understand the various components of implementation of curriculum reviews such as its 'philosophy' values, assumptions, objectives, subject matter and implementation strategies' (Chung Wei, Schultz & Martin, 2014:4). Lack of such information denies teachers an understanding of what they have to do, thus inhibit successful implementation of the curriculum reviews. He further argues that inadequate information can lead to misunderstanding on the part of the teachers who may be confused as to what is exactly required of them. Implied is that vague or inconsistent implementation instructions may cause serious snags to curriculum review implementation.

Ahmad *et al.* (2014:7) argue that the pedagogical potential of ESR activities was not understood and therefore not utilised by teachers. Instead, the emphasis was mainly placed on the economic gain that accrued from self-reliance activities because teachers in some cases used ESR activities as their own means for extra income. Third, lack of feedback mechanisms for reflection and improvement was a challenge. Practitioners were not empowered to learn from their involvement in ESR activities in a manner that promoted improvement. Fourth, although ESR aimed at establishing linkages between Education institutions and communities, the roles of each party were not explicitly established and communicated between them. Fifth, assessment procedures were not designed to capture knowledge developed from participation, in ESR activities, thus, the pedagogical contributions of ESR activities were not assessed.

3.10.6 Unrealistic objectives which generate bewilderment

Some of the problems of implementation seem to originate from the problem of design. Selecting objectives that are feasible and sustainable within the constraints of available human, financial and technological resources would be the first step that would lead towards assuring effective implementation of curriculum reviews. However, this was not found to be the case in most curricula review implementation carried out earlier in many parts of the world. A review study of the implementation of curriculum reviews by Fullan & Promfeit (1977) found that many curriculum review implementations involved as their main objective an *'increase in learning autonomy and control over their classroom learning situations and …foster learner-directed inquiry models.* 'This requires learners who can think independently and be willing to seek additional information. Teachers are asked to think of learners as being capable of making their own choices. This implies that learner /teacher roles have to change with the teacher being more of a facilitator than a director of learning. Such demands are often unrealistic in real life.

Most of the curriculum reviews by Fullan & Promfeit (1977) were found to be highly ambitious and unrealistic as they had little or no experience in the new approaches which were required. Teachers were expected to develop practices that varied significantly from the way they taught, and that were more complex than what they were used to doing daily, and in most cases different from the kind of professional training they had gone through (Ball & Cohen, 1999:338). According to the Ball and Cohen ' *They must do so with materials that often under-support the goals towards which they are to work in the face of assessments that are weakly aligned with*

materials and goals and without adequate opportunities to learn' and all these encompass on ambitious set of aims.'

According to *Zimbabwe Herald Paper* of 17April 2018, thousands of Ordinary and Advanced level learners are at risk of missing out on subjects they have been studying after government surprisingly announced that some combinations which they had chosen would not be examined. Most learners had selected subject combinations at the commencement of the new curriculum in 2015 and were hoping to sit for these in the Zimbabwe School Examinations.

Progressive Teachers Union of Zimbabwe (PTUZ) accused ZIMSEC of administrative bungling which it claimed would leave thousands of learners stranded. "Two years after these syllabuses were introduced in line with the new curriculum, the Ministry of Primary and Secondary Education has shown dereliction which it punted as the cure for the country's educational ills"For the avoidance of doubt, the PTUZ family has consistently been demanding answers all along from the Ministry and Zimbabwe schools examination Council (ZIMSEC) who provided no guidance on which subjects were examinable and which ones were not. "That left schools and learners free to choose any subjects and combinations that they could do only to discover some of these combinations as being outlawed on the 11th hour by the national examiner," railed PTUZ president Takavafira Zhou (*Zimbabwe Herald Paper* of 17 April (2018:2)).

"We wish to inquire what will happen to these learners who would have taken those forbidden combinations for the past two years and are preparing for examinations. "What measures will ZIMSEC and the Ministry take to ensure that learners will not be prejudiced by the prevarication and inordinate delays and bad planning by the Ministry in announcing these optional subjects?" as suggested by the PTUZ president Takavafira Zhou (*Zimbabwe Herald Paper* of 17 April (2018:2)).

3.10.7 Mismatch between implementation of curriculum reviews and mode of assessment

Often lack of alignment has been observed between intended curriculum changes and other system components such as assessment or examination programmes (Ahmad et al 2014:8). This researcher cites a study in which examination papers from eight countries in Africa were analysed and it was found that examinations were still dominated by recall questions and that there were few, if any, questions that were meant to measure effective outcomes as required by the new curriculum in those countries. Even the countries that claimed to have reformed their

examination and assessment systems so that examinations reflected more of the curriculum objectives were found not to have changed sufficiently to reflect the requirements of the new goals. The content of examination items rarely changed, and their styles and quality often fell a long way short of comprehensively assessing key aspects of new curricula. As a result, backwash from examinations was found to be undermining instead of reinforcing fundamental changes (Bush 2008:13).

According to *Zimbabwe Daily News* of 22 January (2017:2), stakeholders also said the twelve terms of continuous assessment in the new curricula would make it impossible to implement the new syllabus anywhere beyond Grades one to four for Primary schools and form one at Secondary school.

3.10.8 Inadequate in-service training of teachers

According to Mupa & Chinooneka (2015:129), when people are first confronted with change, they approach it with mixed feelings irrespective of how good and valuable the change is. There are several reasons for this. Firstly, they are uncertain about the demands of the change. Secondly, they often doubt their ability to succeed in the implementation of the new ways. Thirdly, they may be grieving the loss of old ways of doing things. Due to the above-mentioned feelings, when teachers interact with the implementation of curricula review, they may accept, reject or modify some parts to make it suit their particular context. The curriculum review gets transformed in the process, as 'the new and old overlap to create a zone of turbulence and challenge.

3.10.9 Inadequately trained facilitators

Inadequately trained change facilitator can seriously impact on how information is passed on to the implementer. Mangope and Mukhopadhyay (2015:61) call for empathy towards people in authority positions who are given the responsibility of leading implementations they may not understand. Their lack of understanding may be because, one, the implementation of curriculum review was not well developed; two, they may not have been involved in deciding on the change; and three, they may not have received adequate orientation or training themselves (Mangope & Mukhopadhyay, 2015:62).

3.10.10 Teacher-related factors

According to Kigwilu & Akala (2017:377) we should not limit out understanding of resources of financial or material resources but should include other resources that influence classroom practices such as human resource (teachers, learners and parents) knowledge of (Science, science education and the transformation agenda) time (deployment of teachers, learners and parents), sense of mission and commitment (among educators, learners and parents)' as well as 'textual material (especially textbooks and syllabus documents). Kimaryo (2011:50) argues that teachers still focused on developing content with the hope that the learners would develop the intended competencies automatically.

Tilya and Mafuniko (2010:41), maintain that some teachers were not implementing the new curriculum because there was lack of clarity among potential as even some curriculum developers and book writers have yet to grasp the meaning of CBC and of the learner-centred approach. For effective CBC implementation to occur, there should be teachers' orientation and training, appropriate teaching and learning resources and adequate classrooms.

According to a research conducted by Makunja (2016:32), teachers were eager to implement CBC, but the big challenge was lack of knowledge. Most of the teachers did not understand clearly the competence-based approaches because they did not get any training. Insufficient teaching and learning resources were indicated by respondents as one of the challenges the teachers face in implementing competence-based curriculum with varieties from one school to another. Teachers also reported absence of laboratories and libraries in some schools as factors hindering effective implementation of CBC through practical and experiments. Learners who joined secondary education with low ability posed a challenge to teachers in implementing CBC.

According to *Zimbabwe Sunday Mail* of 5 February 2017, the Ministry of Primary and Secondary Education started an ambitious curriculum change-over which centred mainly on the Nziramasanga Commission's recommendations on education with regards the development of learners competencies. The change-over has been met with several challenges, chief being the timing, human resource base, facilities and adaptability of the curriculum to local educational needs.

The Herald of 6 January (2018:1) reveals that while some learners are enthusiastic about the new subjects, teachers have been critical of the way the new curriculum was implemented saying there are limited teaching materials available for the new subjects. Many say they feel unprepared to teach the new, required courses. Teachers across the country, backed by Zimbabwean's major teachers' unions are criticizing the government for rushing to implement the new curriculum without adequate preparation. Takavafira Zhou, President of the Progressive Teachers Union of Zimbabwe (PTUZ), said in a statement that the introduction of the new curriculum was premature due to the unavailability of syllabi and teaching materials in schools. The PTUZ is one of the country's largest teachers' unions, representing more than 15 000 teachers and lectures in state and private schools and colleges.

'Most teachers that I have interacted with are facing problems in trying to implement the new curriculum because they are not well equipped in terms of both cognitive and material skills',Fainos Magena, a Philosophy and Ethics lecturer at the University of Zimbabwe lamented. Magena says the vision for the country's new curriculum is brilliant but the government's failure to provide enough materials to teachers and its implementation of the curriculum has already caused problems. The government should have delayed the new curriculum until 2018. Magena says 'There was need for wider consultations in terms of who is going to teach the new subjects and who is going to produce the materials he says. 'The ideal thing would have been to delay the process a bit, hold a lot of workshops with teachers –trying to guide them and give them the necessary skills to deliver. And it would also mean new material to be produced for the new subjects' (The Herald of 6 January 2018:1).

A third-grade teacher at a Bulawayo school who requested anonymity for fear of losing job for speaking to the press, agrees that the new time commitment is a lot for younger children. 'The new time modification for the children is too much, because their concentration levels diminish as the day progresses,' she added that at her school, teachers did not have relevant information to teach the new subjects (The Herald of 6 January 2018:2).

A high school teacher in rural school who also requested anonymity for fear of reprisal said learners have adapted well to the new curriculum, but teachers would have benefited from more time and training to understand the material before putting the new curriculum into effect. One missing consideration, she says was the special needs learners. 'There is a lot that needs to be

done for teachers who teach children with special needs, and the curriculum has to be adjusted to suit their needs, she says, 'we are confused in terms of what we are supposed to do as teachers for children with special needs. How do we teach mass display to children living with disabilities that cannot stand for a long time or stand at all?'(The Herald of 6 January 2018:3).

According to Daily News of 22 January (2017:1), many parents wondered if some of the requirements including expensive coloured and plain bond paper, traditional percussion instruments such as pianos and mbiras, pritt, sticki-stuff, more exercise books, mini laptops, several other items are really necessary. The new curriculum is demanding that parents spend hundreds on supplies, even requiring bulk purchases of materials that benefit the entire class, in a move that is fomenting anger among parents who say the lists are budget busters.

Critics said the proposed new framework is a retrograde step, risking narrowing opportunity for many learners, rather than enhancing and supporting it. Teachers complain, for example, that the new curriculum is complex and involves a myriad of new demands, new technologies for all schools, while the majority of institutions in the rural areas lack the requisite infrastructure and most teachers were not computer literate.

President of Progressive Teachers Union of Zimbabwe (PTUZ), Takavafira Zhou told the Daily News that there was confusion when schools opened for the first term 2017. 'Fundamentally, teachers had expected a gradual implementation for the new curriculum punctuated by widespread engagement and consultation,' Zhou said. 'Many schools remain understaffed as teachers have not been recruited, let alone deployed to numerous understaffed schools.' He argued that the implementation of the new curriculum was rushed and that teachers were wondering where to start from, as the syllabi and teaching resources were not yet in some schools, especially in rural areas. 'The heads of schools were as shocked as teachers and waiting for further information from the Ministry of Primary and Secondary Education which may take days to filter down to schools. 'And even when it does, it will not provide a panacea to the challenges faced in schools' (Daily News on Sunday (2017:2)).

The Amalgamated Rural Teachers Union (ARTUZ) said almost all rural schools were not ready to implement the new curriculum. According to the union, 2017's learning season failed to kick start smoothly as both teachers and school authorities grappled with challenges of implementing

the new curriculum. A snap survey conducted by ARTUZ revealed that 98 percent of sampled schools in rural areas were not ready to implement the new curriculum. 'Learners interviewed revealed that they were unconscious of the expectations of the new curriculum,' ARTUZ president, Obert Masarure said.

According to Daily News of 22 January (2017:3), when the Minister of Primary and Secondary Education, Dr Lazarus Dokora announced the decision to implement the new curriculum with immediate effect, he insisted that the process was going to witness consultations with parents and other interested parties at school, district, provincial and national levels. But teachers said schools and teachers were not given the professional freedom to develop the detailed content and pedagogy collaboratively with other professionals, the local community, employers, learners and families. Instead of raising standards, there is a risk of inhibiting progress for large numbers of learners and labelling others as failures. The sheer volume of content of the core subjects in the new proposals at primary, coupled with the year on year specification, risks unrealistic and inappropriate expectations of learners at too early an age, a teacher warned.

3.10.11Lack of equipment

Dziwa *et al.* (2013:315) assert that in developing countries, teachers have often been held responsible for the failure of implementation of curricula reviews and argue that focus should rather be directed at the context and local conditions which make implementation difficult, even for good teachers. Dziwa *et al.* (2013) claim that that the lack of resources or the poor quality of resources, have often been identified as undermining the effort of even the implementation of the new ideas. The results of studies done in Nigeria by Adeniyi, cited by Walberg (1991) and in Botswana (Tabulawa, 1997), show that implementation was unsuccessful in those countries because of inadequate resources, amongst other factors.

First the shortage of resources is the critical problem influencing curriculum implementation. The inadequate facilities including classrooms, laboratories, libraries and playing grounds can affect the implementation of the new curriculum (Jansen & Taylor, 2003:97). Birger, Sukhdeep & Truccano (2015:40) concurs and classified educational resources into three categories namely; human resources, cultural resources and material resources. First, human resources include the teachers themselves and pedagogic content knowledge that they embody. Second, cultural resources include language time and other culturally available tools. Third material resources are

technologies, curricular documents and textbooks that may be incorporated into teaching and learning. Inadequate human and material resources lead to implementation gap that widens the distance between stated goals and realisation of such planned goals.

The implementation of curriculum reviews is also plagued by financial constraints. The government introduced the concept of no child shall be sent home for non-payment of fees. The funds are needed in schools to purchase learning and teaching support materials. The financial constraints impact badly on the implementation of curriculum reviews in Zimbabwe. Parental involvement affects the implementation of curriculum reviews by improving the academic achievement by learners (Bantwini 2010:85). However, the educators do not attract adequate support from the parents. The parents believe that it is not their role to assist children with their schoolwork. The hindrance is that parents are ill-informed regarding curriculum implementation. As a consequence, they are unable to help their children (Badugela 2012:19).

Furthermore, in the early 1980s, external shocks (energy shortages and drought) caused an economic crisis. Efforts to arrest the crisis demanded adopting economic restructuring and recovery mechanisms that required a fundamental ideological shift from a socialistic to a capitalistic ideology. This was in response to demands by the international donor community that encompassed the International Monetary Fund and World Bank structural adjustment programmes. A clear cut up market orientation was demanded, especially in Tanzania but also in other developing countries, adopted and adapted to free market economic policies in which goods or services are held individually and exchanged (as private property) with the act of change occurring through a pricing mechanism that responds to individual preferences (rather than state control). The education sector, as was the case with other publicly financed sectors, was heavily impacted. As a result, education was no longer used as an instrument of social change but as an instrument of economic efficiency (Ahmad *et al.,* 2014:7).

Following the adoption of liberal market policies in the mid-1980s, national development orientation shifted from Ujamaa and commitment to collective responsibilities and to individualism. Educational focus also shifted from preparing learners for life, to observable and quantifiable outcomes. A look into education delivery mechanisms as organised under liberal education policies shows two distinct features namely, teaching for that purpose of selection for further education and lack of contact with communities (Ahmad *et al.,* 2014:7).

The opinion put forward by Makunja (2016:30), the government through Tanzania Institute of Education (TIE) revised the secondary school curricula into the Competency Based Curriculum (CBC). This aimed at equipping school graduates with sufficient knowledge on inclusivity and global village and life skills like ICT, critical thinking and collaboration for them to survive academically and socially in the modern world.

Dziwa *et al.* (2013:318) conducted a study on curriculum innovation or renovation: Feasibility in Zimbabwean secondary schools and found out that the curriculum renovation is an uphill struggle in Zimbabwean secondary schools. The study revealed that the schools have no capacity to buy expensive tools, equipment and textbooks required by different subjects. For technical and practical subjects, fees charged by schools were too low. Teachers resorted to areas of the syllabus which they felt had not changed. Teachers also cited lack of specialist rooms to carry out practicals.

A visit by ARTUZ to schools in Gokwe showed apparent lack of infrastructure to implement new blueprint. They noted that there was electricity for compulsory computer programs, no laboratories and no textbooks for the content to be taught. The story is the same in the bulk of rural schools: *The Daily News* of 22 January (2017:3) noted that. 'In all this chaos government's response was to deploy overzealous inspectors countrywide. The inspectors could not do much as they realised that there was nothing to inspect. The schools were not yet ready to teach.'

3.11 CONCLUSION

The chapter presented and interrogated the conceptualisation of curriculum, factors influencing curriculum reviews and also models of implementing curriculum reviews. The chapter also analysed curriculum reviews from a global perspective zeroing upon the Zimbabwean situation. Management of educational change from a global perspective was equally examined. The researcher proceeded to focus on mitigations to challenges of implementing curriculum reviews narrowing down to the Zimbabwean situation. In the penultimate, the research crowned the chapter with challenges encountered in the implementation of curricula reviews and a proposed framework for successful implementation of curriculum reviews.

The next chapter focuses on issues of research methodology. The methodological considerations and choices of any study are the anchor of both the process and the findings, and they jointly determine the quality and value of the new knowledge gained and the suggestions offered.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

The preceding chapter explored the literature on the curriculum, factors influencing curriculum reviews, models of curriculum reviews, an appraisal of different approaches that can be used in managing educational change and a framework that can be used in mitigating challenges that are encountered by school managers in the implementation of the curriculum review. This chapter locates the methodological parameters of the study. The current chapter addresses key issues such as the aim of the empirical study, research design, methodology, data analysis and ethical considerations. In the chapter, the researcher also outlines the major choices that were made and also offers the rationale and justification for these choices.

The strength and quality of any research is a result of the methodology used. The need to ensure correlation between the problem and the purpose of a research study and its methods cannot be over-emphasised. It was, therefore, imperative for the researcher to make appropriate relevant and justifiable selections on the methodology, from the paradigm, the research methodology, research methods right through to data analysis and ethical considerations, in order to ensure that the study's results are trustworthy and useful to the context of the study.

4.2 AIM OF THE EMPIRICAL STUDY

In any empirical study, conclusions drawn are based upon hard evidence gathered from data collected from real life experiences or observations (Mertins, 2005:4). The empirical or field study that the researcher executed had the purpose of gathering information in order to provide answers to the following main research question:

What mitigation strategies could be used by school managers in overcoming the challenges encountered in implementing curriculum reviews in Zimbabwe?

The main research question was addressed by answering the following research questions:

1. What challenges do school managers encounter in the implementation of curriculum reviews in Zimbabwe?
2. What are the current practices by school managers in overcoming the challenges?
3. What measures can school managers deploy in mitigating the challenges encountered in implementing curriculum reviews in Zimbabwe?

From the responses to these questions, the researcher identified the challenges encountered by the school managers in the implementation of curriculum reviews, measures that are pertinent in overcoming these challenges and components of a framework that can be used to mitigate these challenges.

4.3 RESEARCH DESIGN

Bhatttacherjie (2012:35), says research design is a comprehensive plan for data collection in an empirical research project. It is a "blueprint" for research earmarked to answer specific research questions. This implies that research design entails making critical choices on the part of the researcher.

4.3.1 Qualitative Research Approach

This study is rooted in the qualitative research paradigm. Qualitative research is appropriate where the nature of the study is a social reality that is not clearly visible in people's lives, reality that is ambiguous, distorted and taken for granted. The researcher settled for qualitative research because of its power to explore and expose such reality and practices in real life situations. The preceding statement is supported by William (2011:71) who is of the opinion that qualitative research aims to collect qualitative data which is a record of the qualities concerning peoples' judgments, feelings, emotions, ideas, beliefs and attitudes.

Jackson, Drummond & Camara (2007:22) further explains that qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive material practices

that make the world visible. These practices turn the world into a series of representations including field notes, conversations, photographs, recordings and memos to self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study phenomena in their natural setting, attempting to make sense of, or to interpret, phenomena in terms of meanings people bring to them.

The qualitative approach enables the researcher to analyse the real world of school managers using in-depth interviews to explore the reality of their practices and make visible their experiences in the implementation of curriculum reviews. It makes their own meanings count in the conversations that attempted to interpret the social realities of their world. The interpretive nature of qualitative methods makes it possible for the researcher to seek in-depth understanding of the challenges encountered by school managers in the implementation of the curriculum reviews and mitigations of challenges. This can only be supported by qualitative study. The researcher assumed an active and a very personal role in the study qualifying her as a qualitative researcher rather than adopting the position of disinterested, impersonal bystander analysis objective social phenomena.

Qualitative data which relies on human interpretation and evaluation is enshrined in the interpretivist paradigm which guides the study. This takes us to the process of analytic induction which according to Draper (2004:643), means the researcher moves from interviews, and documents analysis to conceptual generalisation. Inferences are made from specific observations to more general rules in order to construct a model or framework. This validates the study as it seeks to develop a framework for mitigating challenges encountered by school managers in the implementation of curriculum reviews. The framework was crafted by making inferences on the data collected in order to explain the objectives of the study which are:

- To determine the challenges which school managers encounter in the implementation of curriculum review in Zimbabwe.
- To establish the current practices by school managers in overcoming challenges encountered in the implementation of curriculum reviews.
- To suggest measures that school managers can deploy in mitigating the challenges encountered in the implementation of the curriculum reviews.

Many qualitative researchers believe that the best way to understand any phenomenon is to view it in its context. For some qualitative researchers, the best way to know what is going on is to become immersed in it. Qualitative researchers are thus immersed into the culture or

organisation they are studying and experience this as a part of their lived reality (Rahman, 2017:104).

The findings of the study are reported descriptively in accordance with (Tuli, 2010:101)'s view that the research findings in qualitative research are usually reported descriptively using words because the data gathering methods which are used enable rich and detailed descriptions of the social phenomena. This is supported by Chawira (2017:146), who says the reporting or explanation should arise from the findings of the research. This signifies that a qualitative researcher should avoid personal biases in reporting the findings and so, it should be truthful reporting according to Tuli (2010:101). Consequent to this, the researcher used actual quotations from interviews and document analyses. According to Chawira (2017:146), this is often referred to as the 'thick description' of the research findings. The researcher in this study used descriptive reporting in presenting the findings of the study in the spirit of qualitative research methodology.

4.4 THE INTERPRETIVE RESEARCH PARADIGM

Alvermann & Mallozzi (2010:486) define a paradigm as a loose collection of logically related assumptions, concepts or propositions that orient thinking and research. Scotland (2012:9) contends that a paradigm consists of ontology, epistemology, methodology and methods. This study is situated within the interpretive and constructivist research paradigms.

According to Harmmersley (2013:16), the assumptions of interpretive paradigm are that people are deliberate and creative in their actions meaning that through their intentional actions, they make meanings of their perceived realities. School managers are deliberate in the implementation of reviewed curricula and their involvement culminates in meaning-making, leading to the ultimate and successful implementation of reviewed curricula. Alverman & Mallozzi (2010:492), further state that interpretivism assumes that people actively construct their social worlds. Their social worlds are studied in their natural state without the intervention of, or the manipulation by the researcher.

4.5 THE CONSTRUCTIVIST RESEARCH PARADIGM

Adom, Yeboah and Ankrah (2016:2), describe constructivist research paradigm as an approach that asserts that people construct their own understandings and knowledge of their world through experiencing things and reflecting on those experiences. Constructivism is based on the assumption that people construct much of what they learn through experience. Thus, to the constructivist, constructing meaning is learning. This is supported by Tuli (2010:100), who says that the constructivist paradigm sees the world as constructed, interpreted and experienced by people in their interactions with each other and the wider social systems. In the light of the above statement, the purpose of this inquiry is to understand a particular phenomenon, not to generalise to a population. This study aims to suggest mitigations of challenges encountered by school managers in the implementation of the reviewed curricula in the Zimbabwean context.

A researcher operating in the constructivist paradigm relies upon the participants' views of the situation being studied. Tuli (2010:100), shares the same sentiments that researchers within this paradigm are naturalistic since they apply to the real-world situations as they unfold naturally, more specifically they tend to be non-manipulative, unobtrusive and non-controlling. The researcher fulfilled these principles by visiting schools which are the natural settings of the school managers and conducted interviews.

4.6 RESEARCH METHODOLOGY

Walters (2006:35) says methodology is the frame of reference for the researcher which is influenced by the paradigm in which the researcher's theoretical perspective is developed. Somekh and Lewin (2005:346) define methodology as both the collection of methods by which a particular research is undertaken and the principles, theories and values that underpin a particular approach to research. Tuli (2010:102), says methodology is a research strategy that translates ontological and epistemological principles into guidelines that show how research is conducted and principles and practices that govern research. The research methodology of this study is influenced by theoretical perspectives of interpretivism and constructivism.

Multiple case studies of five secondary schools in Gweru Urban District (GUD) were chosen for in-depth understanding of the phenomenon, which is mitigating challenges encountered by school managers in the implementation of the curriculum review.

Multiple case studies of five secondary schools in Gweru Urban District (GUD) allowed for the in-depth understanding of the mitigating challenges encountered by the school managers in the implementation of the curriculum reviews. This draws from the suggestion from Lauckner, Paterson and Krupa (2012:6) that multiple case studies promote the richness, depth, and completeness that is drawn from multiple events that help one to understand the phenomena of interest that is shared among the diverse cases.

4.6.1 Population

Population is a collective term used to describe the total of things or cases of type which are the subject of study (William, 2011:94). For the purposes of this study, the population entails all secondary schools and all secondary school managers in GUD. The school managers were selected on the basis of their expertise and experiences in the implementation of the curriculum review.

4.6.2 Sampling

Taherdoost (2016:20) define sampling as the selection of specific data sources from which data are collected to address the research objectives. Sampling frame is the list from where the sample can be drawn (Battaacherjee 2012:65). In the context of this study, the sampling frame involved the secondary schools offering Zimsec curriculum and experienced school managers.

4.6.2.1 School A: School background and school manager profile

The school is a government school run by MoPSE. The school is located 16 km from Gweru city. School A was initially an Air Force pilot training school but was later turned into a military camp. Gold panning occurs right round the school. The school offers Zimbabwe Schools Examination Council (ZIMSEC) syllabi only. Recruitment for secondary education is not based on merit. The school struggles to get resources for use in the teaching and learning process

because of the government policy which states that no child should be sent home for non-payment of fees. The parents who send their children to this school are in the low-income bracket. So the parents' interest in the welfare of the school is minimal. The class size ranges between 55-60 learners on average.

The school manager is male and aged 60. He holds a Bachelor of Arts (BA) degree and Master of Education in Management of Education. The school manager has been in the service for the past 36 years of which 14 years were spent as a school manager.

4.6.2.2 School B: School background and school manager profile

The school is government owned. It is located in the vicinity of the Central Business Centre (CBC) of Gweru city. Recruitment for secondary education is non-selective. The school offers ZIMSEC syllabi. The school has limited resources for use during teaching and learning because of constraints imposed by the government on tuition fees for government schools. The parents who send their children to the school struggle to make ends meet hence their contribution is minimal. The school enrolment is very high due to the general low tuition fees. Teachers are overwhelmed by the numbers in the classrooms which average fifty-five.

The school manager is female and aged 60. She is a holder of a Bachelor of Education (BEd). The school manager has been in the service for the past 37 years of which 27 were spent as a school manager.

4.6.2.3 School C

School C is a government run school with day scholars only. The class size of the school ranges between 56 and 57. The school has very limited resources. The parent community offers very little support with most of them expecting free education for their children. School C is situated 7km from Gweru city. The school manager is 55 years of age. He is male and has served the Ministry of Primary and Secondary Education for 28 years, of which 11 years were spent in the administration of the school. The school manager is a holder of Master of Science (MSc) in Leadership, Bachelor of Education (BEd), Bachelor of Arts in Public Administration and a Certificate in Education.

4.6.2.4 School D

The school is located 12km from Gweru city. The school manager is 56 years old and has 33 years of teaching experience of which 24 years were spent as a school manager. He is a holder of a Master's degree in Science Education, Master of Commerce and Accounting, Certificate in Education, Bachelor of Education and Bachelor of Commerce and Accounting. The school is government-owned, and the class capacity is 50 learners on average. School D has a boarding and day component. Again, the school has challenges with the collection of tuition fees. Most of its parents hardly pay fees on time leading to challenges with resource mobilization.

4.6.2.5 School E

The school is situated 1.8 km from Gweru city. The school manager is 48 years old. He has served in Ministry of Primary and Secondary Education for 17 years of which 12 years were spent in the administration of the school. The school manager is a holder of a Master of Arts in African History, Bachelor of Arts (BA) in History, Bachelor of Education (BEd) and a Diploma in Education (Dip.Ed.). The school is peri-urban and government owned. The class capacity is 45 learners on average. The majority of learners at the school are day scholars. The collection of tuition fees by the school is a challenge especially with day scholar learners.

4.6.3 Semi structured interviews

Semi structured face-to-face interviews were used to collect data from school managers. Sharma (2010:4), says the interview method takes form of a dialogue in which the researcher seeks to elicit information from the participant about how the interviewee thinks. Bhattacherjee (2012: 78), calls the interview a more personalised form of data collection method in the sense that the researcher records the actual words echoed by the respondent and even the attitude of the interviewee in answering questions. This implies that through interviews, a forum is created for participants to share their views as they best see fit.

Ribbins (2007:215), in Razzaq (2012:103), suggests four aspects to be managed effectively to produce rich and reliable data from interviews namely:

- What is being asked and how

- The interviewer and interviewing
- Recording
- Transcribing

In line with these four key elements, the first task was to plan and finalise the interview protocol. In the planning process, all objectives of the interviews were clarified that the interviews were intended to explore the experience of school managers in the implementation of the curriculum reviews.

According to Sharma (2010:4), there are different types of interviews classified on the basis of the nature of questions which are dependent on the purpose of the interview namely, structured, unstructured and semi-structured. This study used semi-structured interview which uses open ended questions relevant in the collection of data on the need for mitigating challenges encountered by school managers in the implementation of the curriculum reviews, the current practices used by school managers and measures that can be employed to mitigate these challenges.

The questions that were used to find answers to the issues raised in the preceding paragraph were captured in the interview protocol. Hoepfl (1997:5), say an interview guide or schedule is a list of general topics or questions that the interviewer wants to explore during an interview.

Hoepfl (1997:5), says interview guides ensure good use of limited interview time and the researcher complied with the above statement by coming up with an interview protocol with the open-ended questions given above. This makes the interviewing of multiple participants more systematic and comprehensive and this was achieved by asking the same questions to different participants and yet the interactions kept focused.

In order to ensure the credibility of the interviews as suggested by Sharma (2010:4), the participants were visited at their workplaces to have face to face interviews in the right context. The process of interviewing was an enjoyable but challenging task. The August 2019 vacation period was chosen as an appropriate time to interview school managers as the learners and most teachers were on vacation but the school manager, teachers with examination classes were still at the school. It was good timing as school managers were more relaxed, away from their day to day managerial tasks related to the feeding and supervision of the whole body of learners and

teachers respectively although they were forced to attend to the issues of administration here and there. Thirty interviews were conducted in the offices of the participating school managers.

The permission letter from the Ministry of Primary and Secondary Education was given to the participants at the start of the interview meetings which gave the researcher authority to conduct research at the school and the letter of consent which contained information about the research, its purpose, the purpose of including school managers in the research and the commitment to confidentiality and anonymity along with the right of the participants to withdraw at any point. The researcher elaborated verbally on the matters of confidentiality and anonymity although explained in the document. The researcher saw it necessary to gain trust of the participants and make them comfortable, especially when the interviews were audio taped. The participants were given the opportunity to ask any questions about the research or the interview itself. The interviews lasted between 30-35 minutes. In the five interviews, there were short disruptions as interviewees had to attend to some urgent official enquiries, but the flow of the conversations was regained.

All the participants used English throughout their conversation. The language of official correspondence in Zimbabwean schools is English and school managers frequently use this language. English is the medium of instruction in many of the schools, especially in urban areas, which were part of my study. English language is also a compulsory subject up to graduate level and therefore every person who is a graduate has the exposure of the language.

Interviews have greater potential to provide greater depth of information. The greater depth of the information was collected by having a total of thirty interviews with five secondary school managers and this is in tandem with the recommendation made by (Wilmot, 2006:4) that to provide some depth of qualitative investigation, one might expect to achieve between twenty and fifty interviews on one to one investigation.

Sharma (2010:3) believes that personal perspectives of the respondent are provided since meanings and feelings can be quite detailed. The researcher ensured that the interviewees had a voice in the interviews in order to express their meanings and feelings as guided by the theoretical framework of complexity theory which calls for researchers to replace vertical or bilateral forms of communication with open minded and lateral communication. Complexity

theory also emphasizes the importance of relationships and interpersonal communication during interviews. School managers were allowed to express their thoughts and beliefs about their experiences in the implementation of the curriculum reviews.

The researcher had the opportunity to probe or make follow-up by asking for clarification and examples from the respondent as suggested by Sharma (2010:4) and Bhattacherjee (2012:78). The researcher made follow-ups on the responses by the participants and this is in agreement with the dictates of complexity theory which are collaboration, interaction and communication. In asking for further clarifications, the researcher was able to get the meaning of the responses by the participants without having to assume the meaning of participant responses.

One of the demerits of an interview as a data collection method is that interviews are time consuming in terms of travelling time to interview venue, transcription and interpretation time of collected data (Bhattacherjee, 2012:79). Travelling time was minimized by driving to the interview venues and selecting sites for collection of data that are within a radius of sixteen kilometres from the researcher's residence but taking into consideration the criteria for sampling. The researcher sought the services of an English language teacher to transcribe the interview recordings. In order to address the issue of the cost of the interview resources, the researcher undertook the interviews personally over a period of two months visiting the school managers. Interview protocols were produced and printed using own resources.

The researcher equipped herself with interviewing expertise by reading widely on the interview as a data collection technique before conducting the interviews. This was done to meet the interview requirements. The researcher was equipped with relevant interview techniques of posing one question at a time, listening carefully to the responses for note taking and voice recording of the responses for future transcription. The researcher also used previous experience acquired when undertaking research for Master of Education Degree programme, Bachelor of Education degree and Diploma in Education acquired in 2007, 2002 and 1998 respectively.

As an alternative form of addressing possible abuse of the interview by the respondent which could result in collecting false or distorted data leading to false findings and conclusions (Sharma, 2010:4), the researcher asked open ended questions and used document analysis to confirm and disconfirm the responses to the interview questions.

Bhattacherjee (2012:78), contends that both the interviewer and the respondent can be sources of bias through the questions asked or perceived role or presence of the interviewer and through the conception of the interviewee's ability to answer questions and the motivation in taking part in the interview respectively.

The researcher explained to the participants the purpose of the research which is in partial fulfillment of the requirements of the PhD being pursued with North-West University (NWU) to curb the problem of the perception of the interviewer. The research also addressed the problem of the conception of the interview by the interviewers by explaining to them that the purpose of the study was not to find their faults or weaknesses in the implementation of the curriculum reviews but to fulfill an academic purpose and to come up with recommendations which could be used to improve the implementation of the curriculum reviews. The researcher also explained to the participants that they had freedom to ask for clarity of questions which they did not understand in order to do away with ambiguities and get responses based on clear questions to ensure relevant data. The researcher promised to give the participants, District Schools Inspector (DSI) and the Permanent Secretary (PS) in the Ministry of Primary and Secondary Education the results of the study for adoption as a framework for mitigating challenges encountered by school managers in the implementation of the curriculum reviews. Feedback is a critical component in complexity theory. It should occur between the researcher and important stakeholders of the implementation of the curriculum reviews.

Sharma (2010:4) recommends that for the researcher to mitigate limitations associated with interview as a data collection method, the researcher has to first of all build trust and respect in the research context. Tuli (2010:100) echoes the same sentiments that building a partnership with study participants can lead to deeper insight into the context under study, adding richness and depth to the data. The issue of building good relationships is key in complexity theory. Once there is good rapport between members concerned it's possible to achieve intended goals such as data collection. The researcher established trust and respect (partnership in the research context schools) by presenting to the school heads, a letter of permission to undertake research in schools from MoPSE and the Provincial Education Director (PED) of the Midlands Province of Zimbabwe.

4.6.4 Document analysis as a data collection method

Bowen (2009:27) defines document analysis, as a social research method and distinctly important research tool. Atkinson and Coffey (1997:47), view document analysis as a systematic procedure for reviewing or evaluating documents which could both be electronic and printed. This study strove to review and evaluate minutes of staff meetings which deliberated on the implementation of the curriculum reviews. The above statement is supported by Merriam (1988:118), who says different documents can help the researcher uncover meaning, develop understanding and discover insights relevant to the research. These documents are the embodiment of what schools seek to achieve as they express the ideas, feelings, perceptions and opinions of both the government and schools on the implementation of the curriculum reviews.

In the document analysis, minutes of the past staff meetings were used to identify teachers' sentiments about implementation of the curriculum reviews. Bowen (2009:28), explains that the analytic procedures entails finding, selecting, appraising (making sense of) and synthesizing data contained in documents.

For the purpose of this study, document analysis was done together with interviews to achieve convergence and corroboration of data through the use of different data sources and methods. This was done in order to fulfill what Eisner (1991:110) calls a confluence of evidence that breeds credibility of the qualitative research findings. The researcher used interviews and document analysis in order to achieve confluence.

Owen (2014:10), says that some of the advantages of the document analysis is that it is less time consuming, in pursuant to that, a document analysis schedule was drawn up in advance of data collection from the documents. Guided by the document analysis schedule, the researcher found it easy to select relevant data from the relevant documents. The availability of the school managers who provided minutes of the previous staff meetings made the process easy and less time consuming.

The researcher collected the documents and analysed them away from the vicinity to ensure that the researcher went through. The researcher did this to ensure that she felt comfortable to go through the documents at her own pace. The researcher used documents in order to cast the net

deeper into mitigating challenges encountered by the school managers in the implementation of the curriculum reviews.

Prior (2003:26), highlights that document analysis has its own disadvantages. It is insufficient in detail as the documents are produced for some purpose other than research; documents are created independent of a research design. As a result, they usually do not provide sufficient detail to answer the research question.

In this study the instruments which were used complemented one another in the sense that the weakness of one data collection method was covered by the strengths of the other data collection methods. Thus, the trustworthiness of the study was enhanced. This trustworthiness would otherwise be discredited if a single, data collection method is used considering the limitations in the different methods.

4.7 DATA ANALYSIS

The approach to data analysis used in this study is interpretive analysis of qualitative data. It is of paramount importance to focus on the definition and the principles to be observed in the analysis process. Furthermore, this section presents, the analysis procedure for data collected through interviews and document analysis.

There are various ways of analysing qualitative data. There is no blueprint to addressing the process. The techniques that the researcher adopts in analysing data should stem from a combination of factors which include the research questions being asked, the theoretical framework of the study and the appropriateness of the technique for making sense of the data. Kawulich (2004:96) argues that analysing qualitative data typically involves immersing oneself in the data to become familiar with it, then looking for patterns and these, searching for various relationships between data that helps the researchers understand what they then visually observe displaying the information and writing it up.

Kawulich (2004:97) define data analysis as the process of reducing large amounts of collected data to make sense of it. Kawulich (2004:97) suggests that data analysis be done as data are collected in the field as soon as possible after having been collected, both while the researcher is still in the field, and later, when the researcher is no longer in the field. They describe in the field analysis as including inscription, description and transcription. They further suggest that analysis may be conducted in both a top down fashion and a bottom up fashion. This is in line with the principles of complexity theory, analysis is a complex process which cannot be done in a linear fashion hence the need to adopt both a top down and bottom up fashion.

Kreuger & Robson (2011:408) suggest two forms of interpreting data. One of these is where interpretation proceeds from the bottom-up with the aim of getting closer to the intended meaning of a text (hermeneutics of empathy). Empathy interpretations are driven by a desire to get as close to the meaning in a text as possible by trying to understand it "from within." Emphatic interpretation focus on what presents itself rather than what might be hidden. It involves paying attention to the characteristics of an account, making connections between its various attributes and noticing patterns with the aim of a fuller understanding of what is being expressed rather than finding out what may be going behind scenes. In other words, it is concerned with how (rather than why) something is experienced. Connectedness is one of the key tenets of complexity theory, data collection involves human subjects, and this calls for the researcher to be connected to the participants to establish trust. Connectedness is also of paramount importance in order to strengthen the depth of the study.

On the contrary, Best & Kahn (2006:270) presents suspicious interpretation as a way of seeking to reveal a hidden meaning by interpreting clues contained within the text. This is referred to as hermeneutics of suspicion where interpretation is done top-down with the intention of revealing a deeper meaning beyond the surface. This implies that surface meaning (e.g. contained) in the words that are written/spoken or the images presented) are not taken at face value but seen as pointers of which if read correctly, allows the researcher to access more significant latent meanings. Scott and Usher (2011:89) further suggests that in order to be able to read the signs correctly and to derive true latent meanings, the suspicious researcher requires a code with which to open up the text. The researcher in this study adopted hermeneutics of empathy in order to elucidate meaning that is implicit in the data. This approach positions the researcher as a novice who has no privilege access to the meaning of the phenomenon under investigation.

In analysing the data, the researcher used interpretive qualitative data analysis defined by Elliot and Timulak (2005:150) as working with data, organising it, breaking it into manageable units (deconstruction of data). The organising concepts that the researcher derived from working with data are teacher views in the implementation of curriculum review, parent community's contribution, learners' views, Ministry of Primary and Secondary Education's role, the impact of policy of regulations and measures to adopt in order to ensure effective implementation of the curriculum reviews.

Sargeant (2012:2) refers to deconstruction as the first step in the qualitative analysis. In order to achieve this, the researcher re-read the text data from the interviews and document analysis in order to get an understanding of the data. This process enabled the researcher to know the data by reading it repeatedly to internalise it (immersion) and to obtain a sense of the whole. This was done to pave way for new insights to emerge from the data.

Patton (2002:434) says interpretation is stepping back to ask what the analysed (deconstructed) data means. The process of interpretation involves transformation. The material interpreted is given new meaning by the researcher and this enables the researcher to shape what comes to be known about it. The power to transform meaning is coupled by responsibility. The researcher pondered over what she is bringing to the material and the angle from which she is approaching it in an attempt to make sense of it. The researcher was also mindful of the possible effects of her claims to know or understand something especially participants' experiences.

Taylor-Powell and Renner (2003) say interpretation is done using themes and connections to explain the findings. The data codes developed in the context analysis stage were compared within and across the different manuscripts from interviews and document analysis. Since the interpretation was based on the personal reflection of the researcher, an effect was made to raise the limitations in terms of the interpretation of the findings.

The interpretive analysis of qualitative data is the reconstruction stage which involves creating and repackaging the prominent codes and themes (Sargeant, 2012: 2). This is the last stage in the interpretive analysis of qualitative data. Just because the purpose of this study is conceptual generalisability and not empirical generalisability, issues that were addressed in the

deconstruction are the major lessons learnt, new things learnt. These are areas of interest to those who the results of the research and its application to other settings, programmes and studies. Exact quotations were used to illustrate the findings.

The deconstruction, interpretation and reconstruction process of the interpretive analysis was done on the findings of each secondary school first. The findings of each secondary school were validated using a cross-secondary school analysis of the findings. The codes and themes of one secondary school were compared and contrasted with the codes and themes of the other secondary schools. This was done to facilitate the emergence of major and minor concepts of the study's findings.

4.8 ANALYSIS OF DATA FROM INTERVIEWS

The researcher used a question by question analysis to show how school managers who took part in the interviews responded to each question. The researcher read text data word by word in order to derive codes. This was done in accordance with the suggestion by Jugder (2016:4), that there is need to highlight the exact words from the text that appear to capture key thoughts or concepts from which codes can be derived. Key phrases in the text data were used as the coding frame as postulated by Best & Khan (2006:276) who say coding a frame can be a sentence paragraph or phrase. The codes derived from rereading of the text data were sorted into categories, through a process called "open coding" by Blair (2015:17) based on how different codes were related and linked. Text data was understood following the three research questions and three research objectives which this study sought to answer and explain respectively.

After identifying and giving names to the basic meaning units, it was time to put them in categories or families. Birks and Mills (2014:22), agree that categories are the themes or concepts that emerge from text data themselves rather than an imposition of predefined coding categories. The emergent categories enabled "thick description" in which phenomena are not only described but also explained depending on the context in which they occur (Draper, 2004:644). The researcher also compared and combined the discrete categories identified in open coding to assemble the big picture. This is what Glaser and Holton (2004:47), refer as axial coding which is a stage in grounded theory analysis (constant comparison) after open coding

where the researcher seeks to make links and find relationships between the concepts and categories derived from open coding.

4.9 ANALYSIS OF DATA FROM DOCUMENT ANALYSIS

The researcher used document analysis as a data generation technique in scrutinizing challenges encountered by school managers in the implementation of the curriculum reviews. The analysis process of data from document analysis involves skimming (artificial examination), reading (thorough examination) and interpretation (Bowen, 2009:32). This iterative process combines elements of content and thematic analysis. Content analysis was done to organize information into categories related to the central questions of the research. The thematic analysis process was done to form patterns within the data, with emerging themes becoming the categories for analysis. The researcher engaged in a careful, more focus re-reading and reflection of the data. The following document analysis schedule is designed to give data that is based on challenges encountered by school managers in the implementation of the curriculum reviews.

1. Minutes of staff meetings on the implementation of the curriculum reviews
2. Policy documents in the implementation of the curriculum reviews.

The researcher recognises these documents as accurate reflections of the official and, to a large extent, objective position of the institutions concerned. Patton (2014:436), shows this faith in official documents arguing that official documents are intended to be read as objective statements of fact, even though they are themselves socially produced.

4.10 RELIABILITY

Golafshani (2003:597), defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study and if the results of a study can be reproduced under the same methodology, then the research instrument is considered to be reliable. The interview guide and document analysis schedule were used with five participants at the five different schools in line with Drost (2012:106)'s view that there be consistency of measurement over a variety of conditions in which basically the same results should be obtained. Reliability is compromised in research by threats such as subject, observer, situational,

instrument and data processing reliability (Taherdoost 2016:33). In order to deal with subject reliability threat, the researcher obtained participant trust by clearly explaining to them the purpose of the research. The situational reliability threat was addressed by asking school managers to have interviews at their most convenient places. The instrument reliability threat was handled by having the interview and document analysis schedules approved by the supervisor.

4.11 VALIDITY

Validity is concerned with the meaningfulness of the research components (Drost 2012:114). Corresponding to Taherdoost (2016:29), validity is the degree to which an instrument succeeds in describing what it is designed to measure. This study considered content validity in drawing up the items for the interview and document analysis schedules. The items were crafted with reference to the research questions and the objectives of the study to ensure that the data collected address the research question and the objectives of the study. This substantiates what Weiner and Hopkins (2007:22), say on content validity as dealing with whether the items included in the instrument adequately represent questions that could have been asked.

4.12 TRUSTWORTHINESS

In qualitative research, trustworthiness represents the criteria for ensuring that a study adheres to predefined parameters of quality and achieves the basic standards of worthwhile research. Tuli (2010:101) says the fundamental criterion for qualitative research findings is trustworthiness which deals with how a researcher can be certain that the findings of an inquiry are worth paying attention to and taking account of. Lauckner *et al.* (2012:14), say trustworthiness is the soundness of a study. They contend that the criteria for trustworthiness are credibility, transferability and confirmability.

4.12.1 Credibility

Credibility offers the reader, any interested party to the research reasonable cause to believe in the soundness of the study's processes and findings. Shanton (2004:64), says that credibility deals with the question of how compatible the findings of qualitative research are with reality. Based on Loh (2013:5), in order to ensure credibility, certain techniques are necessary. These include adoption of research methods well-established in qualitative investigation in general and in information science in particular (interview and document analysis). Prolonged engagement between the researcher and the participants was achieved by having interviews and document analysis over a period of two months in order to establish a relationship of trust between the researcher and the participants. Again, establishment of relationships is paramount in complexity theory for absence of it brings mistrust.

Tuli (2010:105), says prolonged engagement is valuable in qualitative research because it helps to develop rapport and trust in order to facilitate understanding and co-construction of meaning between the researcher and members in a setting. The engagement gave the researcher an opportunity to get first-hand information on the situation on the ground at each of the schools.

As maintained by Korstjens and Moser (2018:122), persistent observation is used to identify those characteristics and elements in the situation that are most relevant to the problem or issue being pursued, focusing on them in detail while prolonged engagement provides scope to the study, persistent observation provides depth. Member-checking occurs when feeding back data, analytical categories, interpretations and conclusions to members of those groups from whom the data were originally obtained. It strengthens the data because researcher and respondents look at the data with different eyes (Korstjens & Moser, 2018:121). Member checks were done by taking back the analysis and interpretations so that participants would examine it to confirm the accuracy and integrity of any analysis and interpretation. This exercise is highly rewarding as it provides an opportunity to understand and assess what the participants originally intended. Participants were afforded the opportunity to correct errors and challenge what could be perceived as wrong interpretation. Member checks gave participants room to provide additional information after a second thought.

Judger (2016:5), says negative case analysis involves searching for and discussing elements of the data that do not support or appear to contradict patterns or explanations that emerge from

data analysis. Frequent peer debriefing sessions with the supervisor and other school managers was done. Thick description of the phenomena under scrutiny was used to try to capture those views that do not necessarily support the major position reached in the research.

4.12.2 Dependability

Dependability is the stability of findings over time (Korstjens & Moser, 2018:121). Dependability involves participants' evaluation of the findings, interpretation and recommendations of the study such that all are supported by the data as received from participants of the study. For a study to be dependable, it must be easy for anyone to trace the research processes and verify the integrity of the steps taken to generate, analyse and interpret data. This requires detailed external audits to be carried out by persons other that the researcher so that it is possible to have a researcher not involved with the research process examine both the process and product of the research study to evaluate the accuracy and whether or not the findings, interpretations and conclusions are supported by the data. The weakness of using external auditors, however, is that they may not know the data as well as a researcher immersed in the study (Cohen & Crabtree, 2008:8). As such, the views arising from external studies were adopted wholesale because the audit analysis sometimes do not adequately reflect the wholeness of the research findings

4.12.3 Confirmability

Confirmability is the degree to which the findings of the research study could be confirmed by other researchers (Korstjens & Moser, 2018:122). Confirmability is concerned with establishing that data and interpretations of the findings are not as a result of the researcher's imagination, but clearly derived from the data. Voice recordings of interviews were done in order to capture the actual experiences and ideas of school managers. The transcripts with the data that was used as quotations from the participants will be availed for anyone to scrutinize. Loh (2013:5), recommends that a confirmability audit trail must be possible in order to establish the trustworthiness of qualitative research as such and audit trail of the interviews will be done.

4.12.4 Transferability

Transferability is the degree to which the results of a qualitative research can be transferred to other contexts or settings with other respondents (Korstjens & Moser, 2018:121). The researcher facilitated the transferability judgment by a potential user through thick description which describes not just the behavior and experiences of but their context as well so that the behavior and experiences become meaningful to an outsider. Such detail enables the would-be users of the findings to form an adequate analysis of the situation studied in order to make informed decisions on the similarities between the situation under study and their own. This disposition gave them the opportunity to select the aspects that apply to their settings and eliminate those that do not.

4.13 ETHICAL CONSIDERATIONS

When research is conducted with human beings, there are always ethical issues that should be taken into consideration. These ethical concerns entail consent of the participants, maintenance of participants' confidentiality and protection from harm. In order to ensure that learner researchers meet these ethical principles in conducting research, Halai (2006:5), says universities lay down principles in conducting research in an ethically appropriate manner and require the researcher to obtain approval from ethics committees before doing the research. In the spirit of conducting this research in an ethically appropriate manner, the researcher sought approval to conduct research from North-West University Ethics Committee. The researcher also sought permission from MOPSE and the Midlands PED to do research in the five secondary schools in Gweru Urban District. Letters of approval were attached to the consent forms that were distributed to school managers who were research participants.

4.13.1 Informed and Voluntary Consent

To ensure that consent was freely granted by each participant, the researcher issued a letter of consent to every individual and asked them to sign and date the letter as evidenced that they agreed to take part, and that their consent was voluntary. A copy of the letter of consent is attached in the appendices. Hesse-Biber and Leavy (2011:64) emphasise the importance of

voluntary consent as a question of basic human rights. In the same vein, the University Research Degrees Committee (2008:63), says that human subjects in a study must be informed about the nature of the research project and researchers must obtain their consent prior to their participation in the study. Every participant was informed that they were free to withdraw at any stage, and no questions would be asked. In support of the above, Hesse-Biber and Leavy (2011: 64), insist that the researcher needs to be sure that the research participants know that their agreement to participate is completely voluntary and that they are free to opt out of the study before, during, or after their initial participation.

Hesse-Biber and Leavy (2011:64), further argue that the researcher should let the respondents know about the project and the role they will play in it. Research information should be availed to participants and the researcher should give participants room to ask questions if they so wish to. Nnebue (2016:5), shares the same sentiments that it is the responsibility of the researcher to explain fully as is reasonable and appropriate, and in terms meaningful to the participants the aims and nature of the research, who is undertaking it, who is funding it, its likely duration, why it is being undertaken, the possible consequences of the research, and how the results are to be disseminated. Such information were clearly stated in the consent letter.

4.13.2 Confidentiality

Apart from getting participants' informed consent, the researcher should ensure that the contributions of the participants remain confidential. The researcher assured the participants that their names would not be attributed to the information gathered, and that their identities would not be communicated to other parties, and certainly not to people in their employment fraternity. To this end, Hesse-Biber and Leavy (2011:4) claim that the researcher should let the participants know the degree of confidentiality afforded to them once they participate. On the same note, the University Research Degrees Committee (2008:5) points out the researcher should explain how far research participants were afforded anonymity and confidentiality and participants had the option of rejecting the use of data-gathering devices such as tape-recorders, video cameras, and digital recording devices.

To ensure confidentiality, the researcher used pseudonyms for interviewees and the data collected were locked in drawers to ensure that no one accessed it except the researcher. The researcher informed the participants that the findings of the research were not going to be communicated to the participants and the MoPSE. Room for asking questions was given to the participants so that they could get clarification from the researcher in order to enable them to operate from an informed point of view. The researcher also availed the permission letter signed by the supervisor to enhance the chances of volunteering to participate in the research process.

4.13.3 Protection from harm

The fact that this research deals with human subjects, it compelled the researcher to ensure protection of participants from harm. Hesse-Biber and Leavy (2011:64), point out that protection from harm is intended to safeguard participants from any mental or physical harm that might befall them as a result of their participation. The researcher ensured that the participants chose their preferred venues for the interviews to boost their confidence and safety. The researcher also ensured that the information that they shared could not be linked to them directly by promising to use pseudonyms to refer to their schools in the data as well as in the reporting of the findings. The researcher made sure that the participants were protected from any mental harm by focusing on information participants volunteered to share without giving them pressure.

4.13.4 Power relations

In a research of this nature, the researcher-participant relationship is often a tug of war game with the researcher assuming the role of a supervisor dealing with subordinates. To curb this temptation, the researcher made effort to cultivate equality between the researcher and the participants. This is noted in Karnieli – Miller, Pessach & Strier (2009:281) who states that the power imbalance between researcher and researched should be considered. The participants should not be pressurised into participation in any way. The researcher empowered the participants to decide when they could be interviewed and the time to avail the required documents. Achievement of justice in the data generation stage was done by careful handling of power relationships in the research process.

4.14 CONCLUSION

This chapter focused on the research design and methodology. It centred on the qualitative research and methodology, the data collection methods, the sampling procedure and the analysis and interpretation of data. The subsequent chapter is concerned with the presentation, analysis and interpretation of the findings of the study.

CHAPTER 5

PRESENTATION, ANALYSIS AND DISCUSSIONOF FINDINGS

5.1 INTRODUCTION

The previous chapter focused on the research design and methodology of the study. This enabled the collection of empirical data of the study. This chapter presents and analyses data gathered through semi-structured interviews with school managers and document analysis of staff meeting minutes. Five schools were chosen to be in the sample and for ethical reasons; these were coded as schools A, B, C, D, and E. Thematic analysis was used to analyse the data. The interviews explored views and experiences of the school managers regarding the implementation of curriculum reviews in Zimbabwe. The aim of undertaking this study was to investigate mitigations of challenges encountered by school managers in the implementation of these curriculum reviews. The implementation of the curriculum reviews has proven to be a challenge for the majority of school managers. In order to achieve the overall aim of the study, the research was guided by three objectives.

5.2 OBJECTIVES OF THE STUDY

Data was collected in order to address the following objectives:

- Investigate the challenges which school managers encounter in the implementation of curriculum reviews in Zimbabwe.
- Establish the current practices by school managers in overcoming challenges encountered in the implementation of curriculum reviews
- Suggest measures that school managers can deploy in mitigating the challenges encountered in the implementation of curriculum reviews.

After the interviews with school managers, the researcher transcribed the information verbatim. The researcher collected the staff meeting minutes as documents for analysis. In congruence with Pope, Ziebland & Mays (2000:114), the process of data analysis entails making sense out of the data collected. Merriam (2009:75) further says the aim of the data analysis is “to make sense

from the data collected by consolidating, reducing, and interpreting what people have said and what the research have seen and read… It is the process of making meaning."

The researcher complied with the procedures stated by Merriam (2009:75) in analysing data. In order to make sense of the data collected from the participants and documents, the researcher assembled the transcripts and documents, identified the segments from the data that answered the research questions. By creating the segments, the transcripts and documents were reduced. The segments that had common trends were grouped to form categories. In line with Pope et al. (2000:115) some of the categories were subdivided into sub-categories. The categories that emerged were further analysed and grouped into themes. In the final discussion, the study linked the findings to the literature review as well as the theory elaborated in chapter two.

5.3 DEMOGRAPHIC COMPOSITION

In order to ascertain the qualification of the respondents during data collection, the researcher gathered data on their qualifications and experiences in the teaching fraternity. The data was collected from each school manager at each of the five participating secondary schools in GUD. The data collected is tabulated on Figure 5.1

The demographic pattern of participants shows the respective schools from where they come from, gender, age, qualifications and work experience. Various codes were used in order to hide the identity of participants SM stands for school Manager and the last letter A indicates the participant's school. B indicates the participant is from school B and C implies that the participant was from school C. D signifies that the participant is from school D, while E represents participant from school E. The data provided is meant to show the suitability of the participants in the study.

Table 5.1: Profiles of respondents

Name of School	Sex	Age of school Manager	Qualifications	Administrative Experience	Code
School A	Male	60	BA General; Master of Education	18	SMA
School B	Female	60	Bachelor of Education	27	SMB
School C	Male	55	Master of Science; Bachelor of Education	15	SMC
School D	Male	56	Master of Science; Master of Commerce	24	SMD
School E	Male	48	Master of Arts; Bachelor of Education; Diploma in Education	17	SME

From the profiles of the school managers who participated in the study, it's clear that they are all qualified to implement curriculum reviews. The fact that their administrative experiences range between fifteen years and twenty-seven years suggests that they have been exposed to the requirements of the implementation of curriculum reviews. All the school managers are holders of a degree and have a professional qualification. It can be deduced that the school managers who participated in the research were credible and dependable sources of data. It can also be said that the purposive sampling that was done for the study suited the research very well (see 4.4.2).

5.4 EMERGING THEMES

After analysis of data from interview responses and document analysis, three themes emerged as illustrated in Figure 5.1 from the analysis of data presented by the school managers in the interviews and document analysis for the five secondary schools in Gweru Urban District. Thematic analysis was utilised to generate the themes.

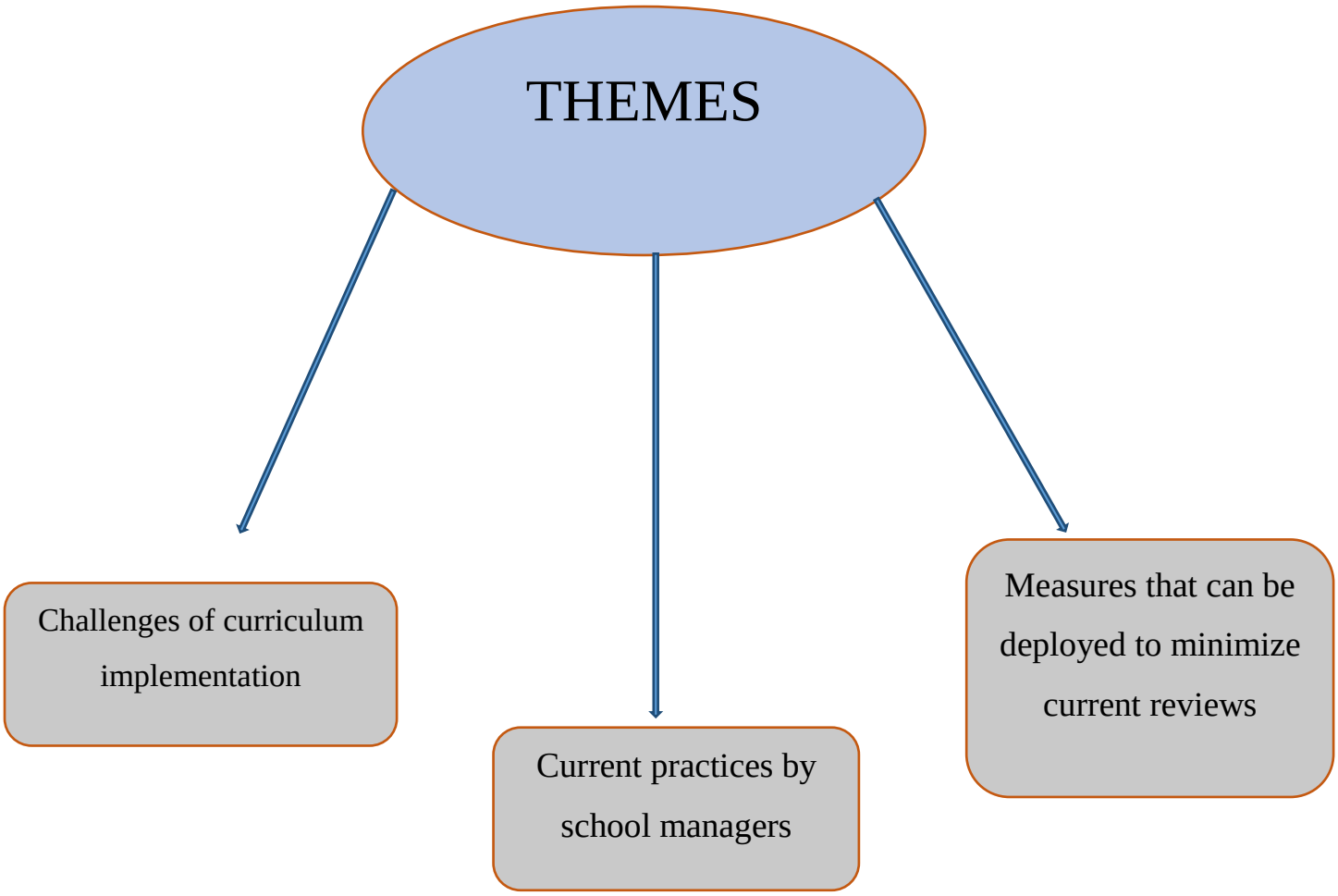

Figure 5.1: Themes emerging from the findings of the study

5.4.1 Theme one: challenges of implementation of curriculum reviews experienced by school managers

School managers experience different challenges in the implementation of curriculum reviews. Data gathered from the interviews with school managers, and staff meeting minutes revealed these categories:

- Inadequate in-service training
- Inadequate resources
- Teacher-learner ratio
- Poor remuneration
- Teacher resistance

- Policy regulations
- Learner resistance
- Insufficient communication

5.4.1.1 Inadequate in-service training

From the interviews conducted with school managers of the five schools, schools face the challenges of inadequate in-service training in the implementation of curriculum reviews. The one-day workshop offered by the Ministry of Primary and Secondary Education does not equip teachers enough to do the job. The staff meeting minutes concur with the responses given by school mangers in the interviews. The training of teachers is hurriedly done, and it is done for school managers and a few people in the school set up. Teachers lack expertise on the implementation of curriculum reviews because they were not involved at its inception. It is ironical to expect teachers to implement curriculum reviews when they have not been trained to do so. The participants from the five schools submitted the following observations with regards inadequate in-service training of teachers.

Participant SMA said: "*In general there is resentment; teachers feel that the curriculum reviews were imposed upon them mainly because there is not enough training that is given to teachers before the implementation of the curriculum reviews. The other dimension is that, its implementation is hurriedly imposed on them before they are trained, initiation is not done. It would make a lot of sense if teachers are initiated to the new roles that they must play in the implementation of curriculum reviews but unfortunately, it is done may be for administrators of schools and few other people in the school set up. Teachers in the main are not inducted into the implementation of the curriculum reviews so at the end of the day, they develop resistance, and would want to fight against the new status quo that has been imposed on the education sector."*

Participant SMC submitted the following: "*I think teachers are not prepared enough for the curriculum reviews. There seems to have been a kind of a top bottom kind of approach, for that reason, some teachers lack the expertise, because perhaps they were not really part of it at its inception."*

The observation of SMD concurs with observations from participants SMA and SMC. *"The first thing I have realised is teachers see the new teaching methodology that comes with the curriculum reviews as deskilling. Then again when the curriculum reviews are brought in, they*

do not bring any benefit on the part of teachers. When something is introduced you would expect there be some benefits like being sent for further training and also your accademic and proffessional qualifications being improved as a result of something new."

SME also confirms observations made by the other participants. *"If I look at issues like consultation of teachers as stakeholders in the teaching process, teachers have a feeling that some of the major mistakes that are inherent in the curriculum reviews are a result of lack of training. When they come up with a roadmap to the implementation of curriculum reviews, teachers have a feeling that the consultation is not wider enough to accommodate their concerns so in that regard they look at it with some scepticism and sort of negativity because of poor consultation."*

In the same vein, SMB supported lack of adequate in-service training in the implementation of curriculum reviews. "*I wish if there could be enough staff development for each and every teacher with regard to the implementation of curriculum reviews and this staff development should not only benefit a few people but should cascade to the grass roots where everybody benefits. It is ironical to expect teachers to implement the curriculum reviews efficiently when they have not been trained enough to do so."*

Contents of the staff meetings held by schools A, B, C, D, and E revealed that there was lack of training to equip teachers with the skills for implementing curriculum reviews. Inadequate in-service training of teachers is evidenced by the one-day workshops offered by the Ministry of Primary and Secondary Education. Lack of preparedness by teachers to implement curriculum reviews also indicates inadequate in-service training. Teachers also lack craft competence inadequate resources.

School D minutes of staff meeting held on the 20th of September 2017 revealed that there was lack of proper training to equip teacher with skills to implement curriculum reviews.

The same views were echoed by the minutes of the staff meeting held by school E on the 27th of February 2018. The implementation of curriculum reviews takes people by storm instead of going stage by stage. Failure to implement curriculum reviews is attributed to inadequate in-service training.

In support of other schools, the minutes of School C held on the 28th of November unearthed teacher incapacitation in terms of skills to teach given topics. "*Teachers expressed challenges with teaching skills like entrepreneurship, critical thinking and collaboration."*

School A meeting minutes held on the 6th of April 2017 concur with other schools on lack of inadequate in-service training. Facilitators rushed over the content since they had very little time for the presentations. Only a few teachers got the training and they were expected to staff develop their counter parts.

School B meeting minutes held on the 22nd of May 2017 in support of other schools manifested that teachers lacked craft competence due to inadequate in-service training. *"Teachers complained that they had different interpretations of the objectives of curriculum review which resulted in trial and error in implementation."*

The finding that there is inadequate training of teachers is confirmed by Prinsloo (2007:160) who conducted a study and got the general impression from respondents teaching in government schools in particular those in rural schools that they were ill-equipped to cope with the demands of Life Orientation (LO) programmes. They mentioned that they had neither specific training to put the aims of the programmes into action nor were they impressed with the departmental facilitators.

This implies that if teachers are not equipped with the necessary skills to implement curriculum reviews, their job performance is affected since they would not know its expectations. Lack of training of teachers increases levels of work-related stress, if teachers are unhappy and feel undervalued chances of them ensuring effective implementation of curriculum reviews will be slim.

The finding on inadequate training is also confirmed by Oyedele and Chikwature (2016:68) who hold that inadequate in-service training of teachers make classroom practitioners less likely to be able to implement efficiently and confidence. Without adequate training, it is hard for teachers to take pride in their work. The problem of lack of in service training of teachers is confirmed by failing to provide teachers with broad access to effective training and professional development,

as well as learning communities where their professional judgement is considered which hurt teachers' effectiveness, sense of purpose and career advancement opportunities.

This implies that the inadequacy in the training of teachers reduces their efficiency and self-confidence in the implementation of curriculum reviews. The possibility of transferring the inefficiency and uncertain to learners is very high. Inadequate training also takes teachers' pride and leave them with low self-esteem which affect the implementation of curriculum reviews. Inadequate training also retards professional growth of teachers which can be likened to putting new wine in an old wine skin. The implementation of curriculum reviews goes along with the use of new teaching methods which teachers need to possess in the implementation of curriculum reviews.

The finding on inadequate training of teachers breaches the principle of self-organisation in complexity theory. It is through adequate training of teachers that they become self-organised. Teachers are able to work independent of curriculum review planners if they are equipped to do so. Adequate training according to complexity theorists should provide teachers with enabling constrains where they work within a few simple rules and boundaries in order to maximise their interactions.

In line with the principle of self-organisation in complexity theory, teachers require freedom and autonomy so that they work in a participatory way within the framework of the implementation of curriculum reviews. Self-organisation also allows school managers to enable implementation of curriculum reviews and at the same time constraint teachers' behaviour.

Self-organisation will build a work force of teachers which is autonomous, networked and connected. Teachers have the ability to "power themselves up" and ensure effective implementation of curriculum reviews if they are self-organised. Reaching self-organisation is a gradual process whereby teachers need to develop interpersonal relationships, and to manage stress to achieve cohesion and consensus. Implementation of curriculum reviews is a complex which requires connectedness, collaboration and self-organisation of teachers. Over and above this, teachers require adequate training to ensure effective implementation of curriculum reviews.

5.4.1.2 Inadequate Resources

The findings from the interviews concur with findings from the staff meeting minutes. School managers encounter the challenge of inadequate resources in the implementation of curriculum reviews. Lack of resources such as textbooks, specialist rooms and furniture hinder effective implementation of curriculum reviews.

In the light of the above, SMA lamented:
"The other challenge that we have is on resources. The little money that we get is channelled towards the most essential things, things that we cannot do without as an institution. The curriculum reviews require a lot of resources. You need to buy equipment, you need to buy textbooks, you need to send teachers for workshops and all these activities require funding. Schools are not collecting as much revenue as they could which impact negatively on resource mobilisation."

This also emanated from the minutes of the meeting of the heads of department for Agrippa high school held on the 6th of April 2017which confirms inadequate resources in the implementation of the curriculum reviews.

"The situation at the school is pathetic, the school cannot afford maintaining its infrastructure. The few textbooks that are in the library are torn and there is no funding for buying new books."

SMB supported the idea of inadequate resources in the implementation of the curriculum reviews by saying:

"Over *the years, the implementation of the curriculum reviews was heavily affected by lack of resources. The government is failing to give financial aid to schools in order to put in place the required resources to ensure smooth implementation of the curriculum reviews."*

This was also echoed in the minutes of the meeting held on the 20th of September 2017 by School B:
"The government stopped giving per capita grant which used to cushion schools in purchasing goods and services. The last batch of textbooks that the school received was in 2012."

In the same vein, SMC shared the same sentiments as he articulated:
"There is no way we can expect smooth implementation of the curriculum reviews where there are insufficient resources. We have a government thaat is also facing challenges to make funds available to every other school in the country. Laborotaries are dilapidated and yet the school has no money to rehabilitate specialist rooms."

The challenge of inadequate resources was further revealed in the minutes of the staff meeting for SMB held on the 22nd of May 2017:
"Over the years the number of earners increased yet there is no expansion of the infrastructure. Practical rooms are too small to accommodate the ever-growing number of learners. This impact negatively on the implementation of curriculum reviews"

SMD with the other afore mentioned school managers as he expressed his opinion:
"When the curriculum reviews are introduced, there are no textbooks to make reference to. Lack of equipment also always impact negatively on the teaching of practical subjects and teachers may resort to teaching theory at the expense of the practical aspect of the learning area."

The staff meeting minutes of School D held on the 20th of September 2017 manifested lack of textbooks to refer to when curriculum reviews are implemented. Inadequate resources compromise the quality of teaching and learning. *"Most curriculum reviews are implemented when there are inadequate resources. The implementation of curriculum reviews is very difficult especially with learning areas such as agriculture where equipment is required for practical work."*

SME also bemoaned lack of resources in response to the same interview question in the implementation of curriculum reviews. He said:
"The curriculum reviews heavily saddle the parents who are struggling to make ends meet to provide the resource base for their children. There is usually no government funding to ensure that schools procure resources towards implementation of the curriculum reviews. The curriculum reviews have not been resourced sufficiently as, most of the textbooks that will be in

use will be outdated and yet the school cannot afford buying textbooks or construct more laboratories to meet the requirements of the curriculum reviews."

Inadequate resources as a challenge for the implementation of the curriculum reviews was also manifested in the staff minutes of the staff meeting held by school E the 27th of February 2018: "*The resource materials required for the implementation of curriculum reviews were exorbitant. Purchase of new textbooks and related learning materials weigh heavily on the parent's shallow pockets."*

The finding of the non-availability of resources is confirmed by the view of Chaudhry (2015:985) who says that the unavailability of resource material such as textbooks, equipment and infrastructure influence negatively on the implementation of curriculum reviews. Nnabuike, Aneke andOlegbulu (2016:44) further supports unavailability of teaching material in the implementation of curriculum reviews when he stated that most schools in Enugu State, Nigeria are hardly properly equipped with audio-visual materials.

The inadequacy of resources in the implementation of curriculum reviews is in agreement with Gaotlhobongwe (2014:12) who says that the shortage of resources has harmful effect in the implementation of curriculum reviews. Teachers cannot dispense information to learners if they themselves do not have enough support materials. This manifests that teachers lack reference to use due to unavailability of new textbooks for the implementation of curriculum reviews. Again, without textbooks and the syllabi, the implementation of curriculum reviews is difficult. If teachers are not well equipped to do the job, the implementation of curriculum reviews suffers.

The impediment in the implementation of curriculum reviews due to unavailability of resources goes against the principle of self-organisation in complexity theory. Schools should be empowered to self-organise and source resources towards implementation of curriculum reviews. Through the different committees and teams, schools have the capacity to mobilise resources if they are empowered to do so and if the environment is conducive for that. To release pressure that builds up on staff due to lack of resources, schools through the principle of connectedness and collaboration, are capable of committing themselves towards the infrastructure.

The finding that there is inadequacy of resources in the implementation of curriculum reviews is disconfirmed by the presence of internet for research in schools. This is shown by teachers accessing WIFI both at school and from the comfort of their homes. Learners also have access to the smart room where they conduct research. In support of the importance of internet services as furthering the implementation of curriculum reviews, Dogruer, Eyyam & Menevis (2011:607) says, the availability of internet services helps create a live environment between learners and teachers while interacting the learning area concerned in the school environment. This implies that the use of diversified resources, such as internet services is critical in the implementation of curriculum reviews. The use of internet for research is an effective way of increasing learners' knowledge in the implementation of curriculum reviews.

The availability of the internet as a source of knowledge in the implementation of curriculum reviews curbs the problem of shortages of textbooks. Use of diversified sources of knowledge is in line with value interaction which is one of the key tenets of complexity theory. Through internet interactions, learners acquire new knowledge as individuals and as a group. New solutions to the challenges of availability of resources could be derived from such interactions. Through the use of internet services, the challenges of shortage of resources are solved.

However, the availability of internet service if it is a supplement of textbooks may give a good exposure to learners in the implementation of curriculum reviews. To bank on internet services only in the implementation of curriculum may not be good enough for learners. More so, to access some books on internet, subscriptions are required which schools cannot afford as shown by the strained budgets they work with. There is parent community involvement in the implementing of curriculum reviews. Parent community involvement is shown through their engagement as resource persons. Parents also sponsor field trips for their children and pay levies towards the development of the school. Parents also buy set books for their children. Parents also attend school functions such as Annual General Meetings and Speech and Prize Giving days.

The moral and financial support given by the parent community in the implementation of curriculum reviews is supported by Gaotlhobongwe (2014:45) who says schools which have strong moral and financial support from the parent community have less hustles implementing of curriculum reviews.

The strong collaboration of parent community in providing financial and moral support in the implementation of curriculum reviews is very essential, hence school managers should incorporate the parent community if curriculum reviews have to achieve its objectives. Collaboration with the parent community is strongly emphasized in complexity theory. Involvement of the parent community in curriculum reviews will make them appreciate curriculum review packages. If parents are happy with curriculum reviews, they will work hard to ensure its effective implementation by funding the requirements of the implementation of curriculum reviews and according their children the moral support they require.

5.4.1.3 Teacher learner ratio

There is high teacher learner ratio in the implementation of curriculum reviews. The reason for high teacher learner ratio is understaffing as a result of non-replacement of teachers when they go for maternity leave, sick leave or manpower development leave. The understaffing of teachers is also necessitated by non-employment of teachers, when new learning areas are introduced and this balloon the number of learners allocated to an individual teacher. High teacher learner ratio is also as a result of over enrolment, school managers are forced to enrol all the learners in their zones.

SMA expressed disgust:
"The curriculum reviews emphasize skills acquisition and when we talk about skills acquisition, we are talking about hands on experience and sometimes this becomes a challenge if the class sizes are too large."

The minutes of the staff meeting for School B that was undertaken on the 20th of September 2017 confirms high teacher learner ratio:
"The implementation of curriculum reviews often brings changes for instance, the competence-based curriculum made combined science compulsory. Teachers are overloaded considering that the number of periods for each of the learning areas is increased to cater for the practical's or experiments. The challenge is that the little resources that the school has cannot sustain the number of learners and this compromises the quality of learning."

SMB also highlighted high teacher learner ratio**.** She said:

"*Again, with our big classes you find teachers cannot cope with the requirements of the curriculum reviews because they need one on one interaction with learners. With classes going up to 50 or 60, teachers may find it difficult to teach learners in a way that they all grasp the concepts taught. High teacher-learner ratio affects the quality of learning."*

The line of thinking in the above view point is in agreement with the issues raised in the minutes of the staff meeting held by School C:
"The expansion of the education system resulted in high teacher learner ratio. The learning areas brought by the curriculum reviews such as compulsory subjects for the CBC are not suitable for large number of learners."

The staff meeting minutes of school E revealed high teacher learner ratio as a thorn in the flesh when it comes to the implementation of curriculum reviews:
"Human person remains a great challenge, MoPSE's stringent budget is inadequate to employ more teachers to reduce the number of learners per teacher."

SMD in support hinted:
"Teachers complain of working with large classes. Working with large classes has ripple effects on textbook ratio, control of learners during lesson delivery and the attention that the teacher is supposed to give to the individual learner. All these factors impact negatively on the implementation of curriculum reviews."

There is general consensus between empirical evidence and the literature study with regards teacher-learner ratio in the implementation of the curriculum reviews. Kyambi (2019:12) avers that teacher learner ratio and heavy workload for teachers affect their teaching capabilities and performance. This means that increased teacher-learner ratio (TPR) hinder effective implementation of curriculum reviews.

In support of the proceeding information, Mulauzi (2020:61) argues that high teacher learner ratio affects implementation of curriculum reviews, so also do they affect the teacher's morale and commitment. The bigger the class, the more materials are required, and the more teacher attention is needed to ensure smooth curriculum reviews.

Koc and Celik (2014:66) suggest that other than the class size, the learner-teacher ratio is an important aspect to consider since that factor actually indicates the time a teacher can spend on each learner. The bigger the teacher learner ratio, the less the time teachers have to attend to learners' academic needs. Therefore, high teacher learner ratio affects the effective implementation of curriculum reviews.

The idea of large class size affecting the effective implementation of curriculum reviews is supported by Ojemenkele, Moye and Alufohai (2017:29) when they argue that overcrowded class does not create room for effective implementation of the curriculum reviews. An observation was made that the quality and quantity of interaction are likely to be adversely affected due to lack of space for moving around and the overwhelming number of learners that the teacher has to deal with.

The finding of high teacher learner ratio is confirmed by Kalemba & Mulauzi (2020:63) who asserts that high teacher learner ratio affects teacher's morale and communication. The bigger the class, the more materials are required, and the more teacher attention is needed to ensure smooth curriculum review implementation. Mbozi (2008:36) further confirm the impact of high teacher- learner ratio when they said that high teacher learner ratio influences teaching methods, classroom management or discipline and likelihood of teachers maintaining individual attention to learners. This implies that the bigger the teacher learner ratio, the less the time teachers have to attend to learners' academic needs. High teacher learner ratio compounded by unavailability of resources as is the case in this study makes implementation of curriculum reviews extremely difficult.

The finding of high teacher learner ratio contrasts the principle of value interaction in complexity theory. The quantity and quality of interaction learners engage in is likely to be adversely affected due to lack of enough space for moving around monitoring the overwhelming number of learners that the teacher has to deal with. Making large classes engage in meaningful interactions may also constrain effective implementation of curriculum reviews.

The finding of high teacher learner ratio also contradicts the principle of use of small groups in complexity theory. Small groups are used to study and understand the phenomenon in order to have an understanding of the whole. If teachers work with smaller groups which are manageable

in the implementation of curriculum reviews, monitoring of learners' activities becomes easier. Smaller groups give room for individual attention to each of the learners.

High teacher learner ratio cripple effective implementation of curriculum reviews in the sense that the limited resources cannot be spread across the large number of learners. Learners have different learning capabilities hence they need individual attention to cater for the differences.
If teachers work with large number of learners, it becomes practically impossible to ensure effective implementation of curriculum reviews. It therefore follows that the higher the teacher-learner ratio, the less effective curriculum reviews can be implemented.

5.4.1.4 Poor remuneration

Teachers who are front liners of curriculum reviews implementation get poor salaries. Teachers are involved in extra engagements outside their teaching profession such as gold panning to supplement their salaries. Poor salaries of teachers are shown in the monetary and non-monetary benefits such as free teas and lunch, free accommodation and transport offered by the school development committees.

SMA exploded:
"The Irony is that, the teacher has to teach other parent's children while he cannot afford sending his own child to school, naturally you lose heart and the effort that you put in implementing the curriculum reviews is mediocre, it's not the best. We have got a mining community around, some of our teachers have now engaged themselves in gold panning to argument, (supplement) their salaries and sometimes you say, well if they have not gone for a week with decent meals every day, maybe they are trying to make ends meet."

SME asserted the above view by saying:
"The Ministry of Primary and Secondary Education does not advocate for the reviews of teacher salaries by the Public Service Commission (PSC) in order to ensure that teachers are motivated enough to implement the curriculum reviews. Implementation of the curriculum reviews increase the workload for teachers leaving them acknowledged whilst teachers' welfare and remuneration are not being looked into."

The concerns of SME are supported by the minutes of School B staff meeting held on the 22nd of May 2017:

"*The remuneration that teachers are getting is peanuts in comparison with the scope of work that come with the implementation of curriculum reviews when teachers complain about poor salaries, an instrument is put in place to gauge their voices."*

SMC showed great concern over teachers' poor remuneration as clearly stated below:

"There is of course the topical issue of teachers. They are sadly, very, very badly remunerated and this has had a negative impact on the implementation of the curriculum reviews. One of the reasons why teachers may not be doing well in the implementation of the curriculum reviews has to do with having to go and do extra activities outside their teaching profession to earn a living thereby leaving their core business of implementing the curriculum reviews."

SMD in support of poor salaries as an impediment to the effective implementation of the curriculum reviews wailed:

"When the implementation of the curriculum reviews is brought in, it's not seen to be bringing in any benefits on the part of teachers. Teachers remain unhappy because of the salaries they are receiving. The fact that teachers are demotivated in terms of what they are getting as remuneration impacts negatively on the implementation of the curriculum reviews. Teachers who do their best and ensure effective implementation of the curriculum reviews are remunerated the same as those that may be putting very little effort, again this may plummet the spirit of the zealous teachers who work with minimum supervision as far as the implementation of the curriculum reviews is concerned."

School A minutes of staff held on the 14th of February 2017 the same concern on poor remuneration of teachers. The meeting revealed the following:

"Incidentally, implementation of curriculum reviews is punctuated by the economic meltdown resulting in poor working conditions and remuneration how teacher morale affects the implementation of curriculum reviews."

Similar sentiments were echoed by SMB:

"Teachers have no time to waste any more, the moment they strike free time, they have to look for means and ways of hunting supplementary money to keep their families going. If teachers

are disgruntled the chances of them ensuring effective implementation of the curriculum reviews are minimal."

The minutes of School E held on the 12th of October 2017 concurs with School B:
"Teachers have no energy to implement curriculum reviews because of low salaries. The working conditions are poor. Teachers spent much of their time looking for piece work jobs to supplement their salaries."

Minutes of School C held on the 24th of January 2018 uphold poor remuneration as a hindrance to effective implementation of the curriculum reviews:
"Teachers are impoverished. It would be a nightmare for the Ministry of Primary and Secondary Education to expect teachers to implement curriculum reviews effectively when they can hardly make ends meet."

The minutes of School D held on the 28th of November 2017 also echoed the same views:
"The Ministry of Primary and Secondary Education is concerned about implementation of curriculum reviews forgetting that teachers who are curriculum review implementers have needs which should be met first. Teacher unions fight for improved working conditions for teachers, their voices seem to be falling on deaf ears."

The observation of poor remuneration of teachers is confirmed by Sango (2016:20) who says that teachers' salaries in Zimbabwe reached the lowest value ever, with a teacher failing to afford a loaf of bread. He further argued that the success of any curriculum review is critically dependent on the extent to which teachers are motivated to carry out the rigor of implementing curriculum review programmes.

The finding of poor remuneration and its impact in the implementation of curriculum reviews is further confirmed by Barbara (2011:11) who say that teachers who receive meagre salaries are more likely to perform poorly than employees who are better remunerated. This reflects that the better the salary, the higher the morale to effectively implement curriculum reviews.

The finding of poor salaries goes against the principle of positive feedback advocated by the complexity theory guiding this study. The principle of positive feedback which conditions

teachers to ensure effectively implementation of curriculum reviews lacks in the implementation of curriculum reviews. The absence of satisfactory positive feedback informs of salaries leaves teachers demotivated. The unsatisfactory positive feedback forces teachers to spend most of their precious time hunting for ways and means of making a survival instead of committing themselves towards finding ways and strategies of ensuring effective implementation of curriculum reviews.

For teachers to engage in informal industry to supplement their poor salaries sounds absurd and this reduces the chances of them working towards effective implementation of curriculum reviews. Teachers give what they have and if they are demotivated by their salaries, they are most likely to transfer this low morale to learners who are supposed to benefit from the effective implementation of curriculum reviews.

The increased workloads of teachers which usually come with curriculum reviews give no benefits to teachers. The combination of heavy workloads and poor salaries leave teachers more frustrated such that successful implementation of curriculum reviews suffers. If teachers are poorly remunerated, they are likely not to do their best in the implementation of curriculum reviews.

If the efforts of teachers in ensuring effective implementation of curriculum reviews are not acknowledged by way of giving them descent salaries, then implementation of curriculum reviews is affected. Behaviour (implementation of curriculum reviews) that is not rewarded satisfactorily is not likely to recur. In this case implementation of curriculum reviews encounter challenges because its implementers are demotivated to ensure effective implementation of curriculum reviews.

5.4.1.5 Teacher resistance

There is teacher resistance in the implementation of curriculum reviews. The reason for resistance by teachers ranges from inadequate in-service training as manifested by the school-based workshops meant to bridge the knowledge gap and insufficient communication which was viewed as not wider enough to accommodate the concerns of stakeholders. Inadequate resources were shown by the absence of textbooks, and in some cases the syllabi and poor remuneration

which is evidenced by the involvement of teachers in gold panning and piece jobs to argument their salaries. The use of top down approach does not fully involve teachers in curriculum reviews and some policy regulations like no child shall be sent home for nonpayment of fees is interfering with revenue collection in schools. Weighed down by these variables, teachers resist the implementation of curriculum reviews.

What is in the empirical study is supported by the minutes of School B which was held on the 22nd of May 2017:
"Teachers are holding on to the old practices. They are reluctant to adjust to the new practices that often accompany implementation of curriculum reviews. Lack of craft competence provoked teacher resistance."

Minutes of School D staff meeting held on the 24th of October 2017 confirm teacher resistance:
"There was limited teacher involvement in the crafting curriculum reviews. Teachers were not widely consulted hence the resistance. If teachers do not know what is expect of then in the implementation of curriculum reviews, they resort to the old ways of doing things."

The same line of thought is brought by Minutes of the meeting held by School C on the 28 November 2017:
"The implementation of curriculum reviews is often wide. It is difficult to have all the learning areas timetabled. Teachers end up teaching areas they are comfortable with or they predict may come in the public examinations."

In the same vein, minutes of School D held on the 24th of October 2017 captured the:
"There is teacher resistance in the implementation of curriculum reviews. The teaching methods that come with curriculum reviews are time consuming. Teachers resist learner centred teaching approaches in order to cover the syllabus."

Contents of the meetings held by schools are in agreement with the interview responses made by the school managers. SMA wailed over teacher resistance in the implementation of curriculum reviews by saying:
"The other dimension is that the current economic situation in the country has not helped much in terms of the implementation of curriculum reviews. Teachers are now resisting because they realise that they are not being rewarded for the good work that they do in the Ministry and as a

result, this frustration from economic hardships has been transferred into the implementation of the curriculum reviews."

In congruent to teacher resistance, SMB said:
"Teachers are stressed. They no longer enjoy teaching as a profession. If teachers are disgruntled, they are bound to resist anything that brings discomfort especially the demands of the implementation of the curriculum reviews that gives them extra work."

In support of teacher resistance SMA echoed:
Teachers see the teaching methods that are coupled with the implementation of the curriculum reviews as deskilling as they make a lot of emphasis on the practical approach. There is a tendency for teachers to do that which they are comfortable with and ignore what they are not conversant with.

SMC shared the same view on teachers' resistance. He said:
"Teachers will resist the implementation of the curriculum reviews as long as they feel left out in its inception. Anything that is for teachers should involve them. More often than not, the implementation of the curriculum reviews is a give and take approach."

SME on teacher resistance stressed the following in support of the other school managers:
"Infeasibility of some government advocacy causes teacher resistance. In the late 90s when computer science was introduced into the school curriculum. Its implementation never took off in some rural areas where there is no electricity despite the effort of government dishing out computers to schools without electricity. Those computers were shelved and were never put to use. Teachers resist when they realise that the requirements of the implementation of the required curricula is not compatible with what is on the ground."

From the interview responses and document analysis, it was found out that there is generally teacher resistance against the implementation of curriculum reviews. The finding that there is teacher resistance against the implementation of curriculum reviews is in agreement with the view by Wiky, Weisthuizen and Vuuren (2014:457) who say teachers resist change if they lack understanding of the content to be taught. Curricula review implementation which are not well-resourced make teachers unlikely to embrace new practices and they resort to their old habits of

teaching. It was found out that one of the reasons for teacher resistance is perceived threats to old practices. Bodegraven (2015:38) confirms that there is teacher resistance caused by perceived threats to their expertise due to inadequate in-service training.

The discovery that teachers resist curriculum implementation due to non-participation in planning is supported by Nnabuike, Aneke and Otegulu (2016:43) who say that there is resistance in the implementation of curriculum reviews necessitated by non-participation of teachers who are curriculum review implementers. This study also found out that resistance is due to complexity of curriculum review material. This is for instance, if the equipment is not technically reliable, simple to operate and readily obtainable, resistance can be anticipated. Yilmaz and Kilicoglu (2013:15) also confirm resistance in the implementation of curriculum reviews particularly those involving equipment.

The theoretical framework of complexity theory guiding this study advocates for collaboration. In the context of this study, collaboration is critical for effective implementation of curriculum reviews. Resistance contradicts the principles of collaboration in complexity theory whereby teamwork is central. The implementation of curriculum reviews is a complex process which requires collaboration of stakeholders such as teachers. Important curriculum review stakeholders need to be linked to curriculum reviewers as envisaged by connectedness as one of the principles of critical theory to allow distribution of knowledge. Collaboration of teachers and other stakeholders leaves no room for resistance since teachers would have been on board.

If teachers own curriculum reviews through the principle of collaboration and connectedness which is one of the tenets of complexity theory, all the loopholes which breed resistance will be closed. Teachers as agents of curriculum review implementation need self-organization. Teachers should be accorded freedom for multi interactions so that they will be able to organize themselves within the overall framework of the implementation of curriculum reviews. Again, resistance goes against the principle of self-organization which is key in complexity theory. Instead of information cascading from the bottom (teachers) through feedback, teachers are taken as recipients of curriculum reviews hence the resistance.

Resistance rebuts the principle of feedback in complexity theory as, feedback must occur between curriculum reviewers and teachers who are implementers of curriculum reviews. If teachers are given feedback on their progress in implementing curriculum reviews, they are likely to repeat positive feedback thereby effecting the implementation of curriculum reviews. Negative feedback can be given where there is deviation from the implementation of curriculum

reviews. In such circumstances, instead of resisting change. Teachers may make adjustments to ensure effective implementation of curriculum reviews.

It was found out that resistance is due to lack of interaction. Resistance also counters the principle of value interaction in complexity theory. Complexity theory perspective shows that change in school can take place depending on the extent to which teachers interact with each other. The level of interaction teachers engage in will curb the problem of resistance. Interaction is critical for effective implementation of curriculum reviews.

5.4.1.6 Policy regulations

Policy regulations interfere with the smooth implementation of curriculum reviews. The policy regulations are interfering with collection of revenues in schools, yet the effective implementation of curriculum reviews requires a strong financial base. The policy on no child shall be sent home for non-payment of fees is being taken advantage by some parents. A policy to protect learners not to be sent home to collect fees is put in place but there is no back up of the same policy to ensure parents honour their obligation of paying fees Education Amendment Act 2019 (Act 15-2019).

If there is no constant collection of fees to fund resources required for the implementation of curriculum reviews it follows that school managers find it difficult to mobilise resources. The success of any curriculum reviews implementation requires finding. The financial base of any country will determine success of the implementation of curriculum reviews. The policy regulation that promotes non-payment of fees by parents violates the principle of connectedness and collaboration. Schools are supposed to be connected to parents who are important stakeholders in the implementation of curriculum reviews. This connectedness improves good rapport between the two parties. Good relationships among stakeholders are required for the effective implementation of curriculum reviews.

SME expressed great concern over policy interference in the implementation of the curriculum reviews. He bemoaned it by saying:

"Whilst we appreciate the implementation of the curriculum reviews which the Ministry have been bringing in, the government lacks what we call policy consistency. The Ministry of Primary and Secondary Education advocate for quality education yet there is a policy that no child shall

be sent home for non-payment of fees (Education Act Chapter 25:04). How does the government expect schools to promote quality education through implementation of the curriculum reviews when schools are not capacitated to collect fees in full, more so the government has stopped to give per capita grant?"

SMD also conveyed great concern over the Education policy which perpetrates non-payment of fees by parents. He had no kind words for the government as he said:
"Politicians take education as a tool to campaign for votes. They use cheap popularity to win the public. The implementation of the curriculum reviews requires a lot of resources but if loopholes are created for parents not to pay fees, people take advantage of these cheap policies not to pay fees. If schools are not collecting as much revenue as they should, ensuring effective implementation of the curriculum reviews may be a challenge."

SMB school manager also lamented over learners' indiscipline as a result of government policy (Discipline in Schools Circular P 35) when he said:
"The policy that prohibits teachers to administer corporal punishment on learners has incapacitated teachers. If a learner doesn't want to write given work, the teacher is expected to use other means of either forcing or persuading learners to write work given. Teachers have lost control over learners, and this impedes effective implementation of the curriculum reviews."

The challenge of policy interference was further reviewed by SMA with regards to non-approval of fees by the Ministry of Primary and Secondary Education, He says:
"There appears to be some tug of war between Ministry and school authorities when it comes to approval of fees. It is the responsibility of the District schools Inspector (DSI) and the Provincial Education Director (PED) to approve agreed fees. The general assembly of parents and the school authorities agree on an annual budget. An application is made for the approval of the proposed budget, Ministry of Primary and Secondary Education official scales down the budget on the pretext of making education affordable and accessible. The budget that is imposed on schools is not elastic enough to meet the requirements of the implementation of the curriculum reviews. What is the purpose of holding Annual General Meetings with parents if at the end Ministry of Primary and Secondary Education officials can dictate a budget which should guide the school?"

SMC in the same line of thought said**:**

"The Ministry of primary and Secondary Education is very late in approving fees. These delays impede development because they bring school administrators to a point of indecision of what to do. Non approval or delayed approval of fees and levies is a serious setback to effective implementation of the curriculum reviews because these levies would have been budgeted to meet the requirements of the implementation of the curriculum reviews."

SMD also cried foul over non-withdrawal of external results over non-payment of fees or lost textbooks.

"The *ministry of Primary and Secondary Education has a policy which forbids school managers to withdraw external results if a child owes anything to the school. Schools can only implement the curriculum reviews successfully if they have resources. What it means is that schools are at a great loss. They cannot recover owing fees, neither are they able to recover lost books. The little resources they would have acquired can be lost by learners and never recovered, instead schools are encouraged to take the legal way or use persuasive means to collect fees in full or recover lost property. This policy impact negatively on the implementation of the curriculum reviews."*

There is a close link between interview responses and staff meeting minutes on policy interference on the implementation of curriculum reviews as revealed by minutes of staff meeting of School A held on the 21st of November 2018:

"The school holds Annual General meetings where budgets and fees proposals are made. The Ministry of Primary and Secondary Education delays approving fees. Sometimes the Ministry scales down the budgets to make education accessible and affordable."

Minutes of staff meeting of School B dated 21 June 2017also reflected the bureaucratic approach of the Ministry Primary Secondary Education which affect collection of fees revenue:

"Departments at the school did not receive their vote allocations. The Ministry of Primary and Secondary Education takes time to approve fees. Most parents take advantage of the policy which state that no child should be sent home for non-payment of fees. The school finds it difficult recovering lost textbooks since the Ministry of Primary and Secondary Education prohibits schools to withhold results for learners who would have lost books to replace them."

Staff meeting minutes of School C held on 24 January 2018 pointed to learners' indiscipline as a result of policy regulations:
"The discipline of the learners went down. The policy which prohibits administering of corporal punishment was taken advantage of by learners. Learner hardly took instructions from teachers to the extent of refusing to write schoolwork."

School D staff meeting minutes dated 28 November 2017confirmed the abolishment of corporal punishment by the Ministry of Primary and Secondary Education when it was said:
"The Ministry of Primary and Secondary Education abolished corporal punishment. Beating a child is an act of misconduct and a chargeable offence. Teachers were finding it difficult keeping learners under control. Teachers were expect to use connect with respect approach with learners and other guidance and counselling techniques to keep learners on track."

Staff meeting minutes of School E held on 19 November 2018 confirmed the policy regulation which interferes with collection of fees: Education Amendment Act 2019 (Act 15-2019)
"Most parents were in fees arreas following the introduction of the policy on no child shall be sent home for non payment of fees. Schools were suppose to come up with strategies to persuade parents to pay school fees. The same strategies are supposed to be for recovering lost school property by learners.It is evident from the interview responses and information from staff meeting minutes that policy regulations interfere with the smooth implementation of curriculum reviews. The policies are crafted at national level and cascaded down to schools which are at the receiving end."

The finding that there is policy interference is confirmed by the provision of Circular Number 3 of 2019 which expound that no child shall be sent home for non-payment of fees. This policy was realised after Tag a Life International (TaLI) supported by Zimbabwe National Council for Welfare of Children (ZNCWC), Women's Coalition of Zimbabwe (WCoZ), Justice for Children (JCT), Matimbure Trust, Citizens Manifesto, Girls and Women Empowerment Network. Moreover, Trust (GWENT) and more than 270 organisations across the country petitioned the Ministry of Primary and Secondary Education asking for a policy to allow poor children of school going age access into schools.

The finding on policy interference in the implementation of curriculum reviews is confirmed by Wales, Magee and Nicolai (2016:11) who say that every education policy decision can be seen as being in some sense, a political decision in education. Indeed, most policy decisions in education, including implementation of curriculum reviews are made with little or no public attention. Sometimes these decisions are controversial and highly political within the organisation itself. But whether controversial or not, education policy decisions, because they involve questions of public choice and concern, are essentially political in nature which may run parallel to effective curriculum reviews implementation.

The collection of school fees is further cramped by downward adjustments of proposed fees by the Ministry of Primary and Secondary Education. The Ministry of Primary and Secondary Education decides on the budgets for schools which are not elastic enough to promote effective implementation of curriculum reviews. The school and general assembly work on the budget of the school and propose a budget for approval by the Ministry of Primary and Secondary Education. The MoPSE has the liberty of adjusting school budgets to make education accessible and affordable.

The finding that policy regulation on the removal of corporal (Discipline in Schools Circular P 35) punishment interferes with the implementation of curriculum reviews is confirmed by Ofori (2018:10) who says that the removal of corporal punishment in schools has caused even more indiscipline among learners. This is not because it was necessarily wrong to do that, but it was not first thoroughly discussed among all the stakeholders, parents' learners and teachers with a new to replace it with measures of discipline that are just or more effective. As a result, teachers are more vulnerable and increasingly being attacked by learners who feel that they now have the right to behave as they like with no effective consequences to their behaviour. Indiscipline is a stumbling block to the effective implementation of curriculum reviews.

The finding that policy regulation on the abolishment of corporal punishment is further confirmed by Stanley (2014:184) who says that lack of discipline interferes with the teaching and learning process if the indiscipline of learners is an impediment to teaching and learning. It follows that, it interferes with effective implementation of curriculum reviews.

The finding that the elimination of corporal punishment interferes with the implementation of curriculum reviews is disconfirmed by the principle of connectedness in complexity theory. Learners can be connected to their teachers if relationships are good. The use of corporal punishment strains relationships which is key in the implementation of curriculum reviews.

Good teacher learner relationships promote collaboration which is crucial in complexity theory. Collaboration of teachers and learners makes implementation of curriculum reviews possible. The two parties cannot work in isolation of each other. Therefore, removal of corporal punishment in the implementation of curriculum reviews was a necessary evil meant to promote the dignity of learners and at the same time promoting connectedness and collaboration which are important elements of complexity theory.

The finding of the provisions of the removal of corporal punishment is in accordance with Section 81 of the Constitution of Zimbabwe adopted in 2013 which includes the following:

- Every child that is every boy and girl under the age of eighteen years, has the rights
- To be protected from economic and sexual exploitation, from child labour and from maltreatment, neglect or any form of abuse.

Section 51: Right to human dignity

Every person has an inherent dignity inherent in their private and public life and the right to have that dignity respected and protected.

Section 53:Freedom from torture or cruel, inhuman or degrading treatment or punishment

Several Zimbabwean schools have traditionally used academic? results as leverage when it comes to demanding all sorts of payments from learners ranging from lost books and outstanding fees. Some schools have always felt that this is the only way they can get learners to pay what they owe; they would withdraw the results until the learner pays what they owe the school. However, the online results portal has thrown a spanner in all that. Learners can view results from the comfort of their homes and they no longer have to contend with the demands of their former schools. What it means is that learners who would have failed in the examinations do not bother to pay fees arrears to access the official results slip (Mbare@ Times, 2020:1).

The policy on non-withdrawal of results for recovery of school property puts the school at a loss. After losing textbooks or failing to pay school fees, the learner can still get away with it. There are no mechanisms which facilitate recovery of school property. School managers have challenges preserving the little resources that they have due to policy regulations that continue putting schools at a disadvantage.

5.4.1.7 Learner resistance

There is learner resistance in the implementation of curriculum reviews to a greater extent. Learner resistance is caused by their noninvolvement in the crafting of curriculum reviews. Some learners do not value learning areas which are not assessed at the end of the course. They drop the learning areas which they deem difficult. There is also learner excitement in the implementation of curriculum reviews especially with new learning areas.

SMA shared the following sentiments:
"The implementation of the curriculum reviews is usually coupled with negative developments. Most of the learners primarily register for June examinations since they know that November examinations would be for the curriculum reviews. When a new thing is coming, there is a lot of fear learners do not know what to expect. Some of the learners think that the implementation of the curriculum reviews makes life difficult for them and as a result, they register for June examinations. June examinations are meant for learners who are able to sit for the examinations before the completion of their course."

Minutes of school D staff meeting held on the 24th of October 2017 in support of SMA further highlighted learner resistance:
"Learner resistance is caused by lack of clarity of concepts. The lack of understanding of a learning area may force the learner to drop the subject."

SME shed more light on learners' resistance. He said:
"The implementation of the curriculum reviews often brings fragmentation of subjects which are not examinable and often studied at Junior level and are not pursued at "A Level". This confuses learners, learners often shun such subjects they do not see the value of studying them if they cannot be examined and offered at A level."

Minutes of the meeting held by School C held on the 28th of November 2017 also revealed learner's resistance:

"The content of the implementation of curriculum reviews is often wide. It is difficult for learners to study and master all the learning areas. Challenging learning areas are left out when there are given options."

SMB registered the following in support of learner resistance:

'If learners are not interested in a learning area, they bank lessons. It's very difficult for teachers who work with large numbers of learners to realise absentees. It is up to the individual learners to decide whether they would like to attend a lesson or not. This definitely stifles effective implementation of the curriculum reviews."

While supporting the views of other school managers on learner resistance, the minutes of School E held on the 12th of October 2017 also revealed learner support for the curriculum reviews. The excerpt below shows the mixed feelings of the learners:

"Implementation of curriculum reviews brings mixed feelings ranging from confusion to excitement. Confusion comes when learners fail to grasp certain concepts. The excitement is due to the introduction of new learning areas."

SMC made reference to policy regulations which give no room for defiance:

"You know when something is introduced at national level with regards to the implementation of the curriculum reviews, you do not have the choice, do you? Sometimes you are forced to swallow it, and this could be the situation with our learners. The implementation of the reviewed curriculum is often brought as a blueprint. They are forced to accept the implementation of the curriculum reviews since at the end they will be required to write external examinations."

Minutes of School B meeting held on the 21st of June 2017 captured the issue of learner resistance:

"Some learners drop subjects which they are not comfortable with. As a result, they loiter around during that period. It is very difficult to convince learners to study certain learning areas especially if they consider them challenging."

The discovery that learner resistance is necessitated by lack of understanding is manifested by the dropping of certain learning areas or bunking lessons. This is confirmed by Tolman & Kremling (2016:3) who say that if learners cannot understand the implementation of curriculum views, their frustration degenerate into resistance. This implies that the frustration that learners experience when they do not understand the implementation of the curriculum reviews may force them either to drop the learning areas that they may consider difficult or to bunk classes.

Contrary to this, the complexity theory guiding this study prescribes connectedness as crucial in the implementation of curriculum reviews and learners should be connected to the school and be considered important stakeholders in the implementation of curriculum reviews. If learners are connected and involved in curriculum reviews from its inception up to the implementation stage, resistance caused by lack of understanding will not find its way in the implementation of curriculum reviews. Learners are the cause for curriculum reviews, their involvement and participation matter.

The study found out that one of the reasons for learners' resistance is fear of the unknown. For example, fear of the unknown was exhibited when learners opted to write June external examinations to avoid sitting for November examinations in 2017 in Zimbabwe. This implies that learners were not certain of what exactly would be examined in the November examinations hence they settled for June examinations. Resistance caused by fear of the unknown is supported by Knight AboWitz (2000:280) who says that some learners resist implementation of curriculum reviews because of fear of the unknown. Learners like doing what they already know.

Resistance caused by fear of the unknown goes against the principle of collaboration. The implementation of curriculum reviews is a complex process which requires involvement of learners so that they do not lag behind in curriculum review issues. No individual or organisation can dictate the implementation of curriculum reviews. Fear of the unknown can only be cleared if learners are taken on board in curriculum review processes so that they associate themselves with the change.

The detection that learner resistance is caused by non-involvement of learners in the planning of the implementation of curriculum reviews was shown by the shunning of non-examinable learning areas. This implies that non-involvement of learners in curriculum review processes may make them lack appreciation of learning areas that are not externally examinable because they would not have the knowledge of the importance of such learning areas. Bunking of classes

is also a clear indication of lack of appreciation of the learning areas which is usually caused by non-involvement of learners in curriculum review procedures.

Resistance caused by non-involvement of learners is highlighted by Kim (2010:265) who posits that if learners are not involved in the planning of the implementation of curriculum reviews, they often resist effort to its implementation. Resistance caused by non-involvement of learners in curriculum review business contradicts the principle of interaction in complexity theory which is the theoretical framework guiding this study. The level of interaction that learners engage in, in curriculum reviews makes them own curriculum review packages. The interaction they will embark on will give learners the forum to raise questions and seek clarity on grey areas. Learners through interactions can come up with solutions to the challenges encountered in the implementation of curriculum reviews. If the objective of the implementation of curriculum reviews is to improve the system and not to make learners redundant, their involvement in how to implement curriculum reviews is critical.

It was established that there is learner excitement in the implementation of curriculum reviews. Learners' excitement was substantiated by the positive comments passed with regards to the introduction of Science, Technology, Engineering and Mathematics (STEM) and the introduction of new learning areas, which minimises boredom and monotony. Learners' excitement as a result of new learning areas is supported by Knight Abowitz (2000:879) who say learners get excited when something new is introduced and their participation is enhanced. They get bored when they are made to learn some concepts over and over again. This means that if learners' participation is enhanced when new things are introduced, it follows that the introduction of new learning areas injects excitement in the implementation of curriculum reviews.

Excitement and positive attitude are pertinent for they are the ingredients to effective curriculum review implementation. Excitement and positive attitude are the fruits of collaboration which is a key principle of complexity theory. Involvement of learners in curriculum reviews will rouse their excitement to learn and make them develop positive attitude. If learners are positive with the implementation of curriculum reviews, then success is assured.

There is evidence of learners' resistance caused by parading of performance grades. This is testified by threats made by learners to transfer when hen they fail to make it. This implies that learners dislike being exposed especially if they do not perform well. Displaying of academic performance grades is a way of making learners work hard and instilling a sense of competition among learners. Resistance caused by parading of performance is disconfirmed by views of Kim (2010:277) who say learners are often motivated to do the best when they compete with their counterparts. Nonetheless, Tolman &Tremling (2016:5) confirms learner resistance caused by competition by saying, individual competition can be stressful for people who find losing humiliating. Teachers must opt for group competitions because they tend to be more enjoyable, less stressful and equally motivating. Use of group competitions is in conjunction with collaboration which is one of complexity theory's principle. Collaboration encourages teamwork, if learners work together in groups, they achieve more than when they work single handedly. Use of group competitions rekindle the spirit of the learners who may be struggling, and this enhances effective implementation of curriculum reviews.

In my opinion, I find group competitions a better way of substituting individual competitions. Individual parading of performance maybe suitable for learners who may be doing exceptionally well in the implementation of curriculum reviews. Learners who may be facing challenges in the implementation of curriculum reviews may require a more positive approach which is life giving so that at the end they feel motivated to work harder.

5.4.1.8 Insufficient communication

There is inefficient communication in the implementation of curriculum reviews. Insufficient communication is manifested through the use of top down approach which cascades to teachers as a blueprint. Wider consultation of stakeholders is not done and hence some of the mistakes that are inherent in the curriculum reviews are as a result of insufficient communication. The confusion that teachers often experience indicates lack of communication in the implementation of curriculum reviews. The release of information on curriculum reviews in fragments and the filtering in of the information about curriculum reviews as rumours specify lack of proper communication channels. The sarcastic branding of a curriculum review after the former minister "Dokora" also reflects the community's negative attitude due to insufficient communication. Lack of clear guidelines of the implementation of curriculum reviews and the adoption of the trial and error approach signify lack of sufficient communication.

SMD said:

"Most parents are negative with the implementation of the curriculum reviews. For instance, the removal of the bible knowledge replacing it with some world religion meant doing away with Christianity, so, anything new should be clear to the parents. The whole misconception is as a result of something being suggested at a certain corner and cascaded to parents without them understating where they are coming from and where they are going."

SME in support of insufficient communication in the implementation of the curriculum reviews as prevalent in the education system. He echoed the following:

"If we look at issues like consultation of parents as stakeholders, often parents do not get enough information about the implementation of the curricula yet they play an important role of funding the education of their children. If parents are not educated about the implementation of the curriculum reviews, the support they give their children is minimal in terms of assisting them with homework."

School A minutes of staff meeting held on 6th of April 2017 revealed the following in support of insufficient communication:

"The implementation of curriculum reviews was not well explained to stakeholders. There was not enough consultation of curriculum reviews hence the resistance by some stakeholders."

School D staff meeting held on the 20th of September 2017 deliberated on issues of lack of proper communication in the implementation of curriculum reviews:

"The top down approach used by the Ministries of Education in the implementation of curriculum reviews does not promote flow information to stakeholders. Stakeholders who feel left out in curriculum reviews develop a negative attitude."

SMC lamented over insufficient communication as a major setback in the implementation of the curriculum reviews. He said:

"The other problem is disseminaion of information. Information about the curriculum reviews is often released in fragiments. It is often accompanied by here says and rumours. This filtering of the information has a net effect on the attitude of the people towards the implementation of the curriculum reviews."

SMB also expressed great concern over the Ministry of Primary and Secondary Education's lack of using proper channels of communications in the dissemination of information. She bewailed:
"The one-way channel of communication used by Ministry of Primary and Secondary Education in disseminating information is tantamount to causing panic to its users. If communication takes multiple channels in the implementation of the curriculum reviews, it is going to improve its effectiveness. Before the formal communication from the Ministry, usually there is a lot of hearsay which goes around injecting confusion and panic in its users."

SMA also complained vehemently about insufficient communication which affects implementation of the curriculum reviews. He expressed disgust when it was said:
"Usually communities develop negative attitude because of this. For instance, at one time, a reviewed curriculum was called "Dokora" after a former minister. The implementation of the curriculum reviews was personalised to the extent that you see negativity in a noble curriculum review."

The Staff meeting minutes of School B held on 20 September 2017 discussed the challenge of insufficient communication as noted below:
"Issues to do with curriculum reviews should involve all stakeholders. Curriculum reviews should be for the people and by the people. Involvement of stakeholders in curriculum reviews makes its implementation receptive."

The minutes of School C held on the 22nd of May 2017 confirmed lack of communication in the implementation of curriculum reviews.
"The implementation of curriculum reviews lacks clear guidelines and as a result there is a lot of trial and error. The Ministry of Primary and Secondary Education forces implementation of curriculum reviews when enough consultation has not been done."

School E minutes of staff meeting held on the 27th of February 2018 echoed same sentiments on lack of communication:
"Most people wonder what exactly the implementation of curriculum reviews would be all about inadequate consultation of stakeholders gives room for doubts and confusion in the implementation of curriculum reviews."

The discovery that there is lack of adequate communication in the implementation of curriculum reviews is noted by the view of Alade (2011:330) who says that the main reason for failure of well formulated implementation of curriculum reviews is lack of understanding about the changes surroundings its implementation to both experts outside the schools and teachers inside the school system. This lack of adequate communication is necessitated by lack of proper use of communication channels within the education system.

The Ministry of Primary and Secondary Education uses top down approach to disseminate information to the users of the implementation of curriculum reviews. This suggest that the top down approach usually does not cover all the stakeholders such as parents and teachers who often fail to get all the information required for the implementation of curriculum reviews. If teachers who are curriculum review implementers lack information about its implementation, one wonders what exactly would be happening in the classrooms. The issue of trial and error allows preaching of a wrong gospel which may be difficult to correct. There is no adequate time to disseminate all the necessary information to ensure effective implementation of curriculum reviews. This is as a result of bureaucratic process which delays the distribution of information to relevant stakeholders.

The detection of insufficient communication in the implementation of curriculum review contravenes the principle of communication which is a key principle of complexity theory guiding this study. The circle of communication, which is decentralised, distributed and connected should replace the top down approach. The school manager, deputy manager, heads of department, teachers and learners should be connected and collaborate with each other for the successful implementation of curriculum reviews.

The all channels of communication which is democratic in nature should replace the bureaucratic approach in the implementation of curriculum reviews. The all channels of communication approach allow stakeholders to share information in every direction and to all parties in spite of their level. The Minister of Primary and Secondary Education, school's manager, heads of department and teachers should collaborate to allow free flow of information. If all the parties are taken on board, they are likely to own curriculum reviews leading to its successful implementation.

The detection of lack of sufficient information in the implementation of curriculum reviews transgresses the principle of feedback which is central in complexity theory. Feedback must occur among all stake holders. Positive feedback which may be monitory or non-monetary is necessary for its motivation curriculum review implementers to work hard towards effective implementation of curriculum reviews. Negative feedback which brings diminishing returns is equally important. If there is a deviation from the norm in the implementation of curriculum reviews, it should be corrected there and there. Teachers as curriculum review implementation agents should be ready to make adjustments where necessary for the successful implementation of curriculum reviews.

The lack of communication in the implementation of curriculum reviews militates against the principle of connectedness and collaboration which are key element of complexity theory. Stakeholders should be connected and should work as a team and this possible if there is sufficient flow of information from all directions. Stakeholders can only engage in meaningful interaction if there is constant flow of information. This suggests that effective communication anchors smooth implementation of curriculum reviews. Implementation of curriculum reviews rises and falls on communication. All other complexity theory variables such as connectedness, collaboration, interaction, self organisation and feedback find strength in communication. It is therefore paramount for school management to foster communication to ensure effective implementation of curriculum reviews.

5.4.2 Theme two: current practices by school managers

After the analysis of data collected from interviews from document analysis, the second theme emerged thus; the current practices by school managers. Various categories emerged on the responses to the question: What current practices do you as a school manager employ to ensure effective implementation of curriculum reviews. The categories that emerged are as follows:

- Training of teachers
- Resource mobilisation
- Teacher learner ratio
- Teacher motivation
- Learner motivation
- Communication
- Policy regulations

5.4.2.1 Training of teachers

To enhance teacher training, school managers sponsor workshops for teachers and affiliate with district, provincial and national associations so that teachers exchange notes.

School managers have devised school-based strategies to intensify teacher training. They organise academic department-based workshops and engage resource persons to equip teachers with the required skills to implement curriculum reviews. SMB echoed:
"To cope with the challenge of inadequate training the school organises academic department-based seminars where members of department are encouraged to engage in team teaching. They exchange notes and learn from each other."

In support, SMA added his voice:
"The school affiliates to learning area associations at district, provincial and national levels to enable staff to share professional warmth. The school also encourages teachers to train as ZIMSEC examiners at various levels so that they acquaint themselves with the requirements of the implementation of the curriculum reviews"

SMB also stressed the importance of tours in the implementation of curriculum reviews:
"The school emphasises educational tours especially on cross cutting themes in the departments, for instance, the Geography and History department may decide to visit Chinhoyi caves where learners can be exposed to some geographical and historical concepts."

SME also explained the importance of hands on in the implementation of curriculum reviews:
"Significant budget expenditure in the school is directed towards staff training and workshops especially with regards to new learning areas. For instance, the 2017 revised curriculum gave subjects an industrial orientation where the thrust is to make them realistic to the practical, industrial and national economic needs. For that reason, the school frequently brings in resource persons to assist teachers and learners towards the implementation of the curriculum reviews."

SMC in support of school-based strategies to upgrade teachers said:

"We conduct vigorous staff development programmes that are local with the teachers to assist them with the methodology of the new curriculum. Naturally, when teachers go through some form of training in the form of staff development, they are eager to implement the curriculum reviews. This improves service delivery. The inclusion of resource persons in various learning areas boosts the confidence of teachers."

School A staff meeting held on the 20th of September 2017 revealed efforts by the school to redress the challenge of inadequate training:
"District, provincial and national platforms allow cross-pollination of ideas among teachers. Team teaching assists inexperienced teachers since they interact with the experienced ones. Inexperienced teachers are encouraged to train as examiners."

There is synergy between minutes of School A and what is happening at School E as evidenced by the minutes of the staff meeting held on the 19th of November 2018:
"The staff development workshops that are held at departmental level have helped teachers catch up with learning areas that appeared to be difficult. Resource persons who are engaged by the school as specialists make concepts taught easy by helping teacher to interpret the aim and objectives of a curriculum review and content."

Minutes of School B staff meeting held on the 3rd of May 2018 also have this to share:
"The school promote team teaching among members. The excursions that teachers and learners embark on simplify concepts taught."

There is a symbiosis of minutes of staff meetings for other schools and minutes of the staff meeting of School D held on the 28th of November 2017.
"The school sponsors resource persons to staff develop teachers in areas they fall short. Teachers are also sponsored to travel to other schools to seek advice from other teachers. Exchange of professional warmth promotes implementation of curriculum reviews."

Minutes of School C staff meeting held on the 24th of January 2018 referred to ministry policy.
"The school adheres to the Ministry of Primary and Secondary Education which stipulates that schools should conduct staff development workshops at least three times per term. It is through such forums that teachers are staff developed on critical areas."

The implementation of the curriculum reviews requires adequate training of teachers as implementers so that they will be able to execute their duties confidently. Adequate training of teachers is therefore a prerequisite to ensure effective implementation of the curriculum reviews. When there is inadequate training of teachers for the implementation of the curriculum reviews, it is the responsibility of school managers to put strategies in place to ensure smooth implementation of the curriculum reviews.

These measures to deal with capacitating the teachers resonate with the views by Prinsloo (2007:163). According to Prinsloo (2007:163), when the teachers of Life Orientation (LO) realised that they were not properly trained to implement the programme, they devised a strategy whereby the LO teachers and the school counsellor formed a team. The information and skills which they conveyed in the LO periods were strengthened in follow- up sessions with the school counsellor and often in individual afternoon sessions with learners in which teachers acted as counsellors. They collaborated with the principal and the rest of the staff to create an atmosphere of trust and sympathy in the school. Their general teacher training, the quality of their input in the teaching task and their access to the newest information in the textbooks and the internet enabled them to equip themselves for the task.

There is a consensus between literature study, interview responses and documents analysis on the importance of teacher training for effective implementation of the curriculum reviews. A new programme or curriculum reviews is coming to people who were trained for implementing a particular curriculum which necessarily requires training when there is review of curriculum. Teachers need training so that they can align with the expectations of the curriculum reviews.

The change in the focus of the curricula may cause the deskilling of teachers of which the efforts by school managers, the districts and the Ministry are handy in feeling the gaps that teachers have in the implementation of the curriculum reviews.

5.4.2.2 Resource mobilisation

There is very little that the government of Zimbabwe is doing to curb the problem of inadequate resources in the implementation of the curriculum reviews. Instead, schools have put some strategies in place to militate against this challenge. Resource persons, textbooks, WIFI,

laboratories and finance emerged as the resources that are mobilised by school managers to ensure the implementation of curriculum reviews.

In a bid to mobilise the problem of inadequate resources, SME said:
"The school through parental consultation makes significant budget commitments towards specific levies such as textbooks levies so that in the absence of government grants, funds are organised for resource acquisition. Some resource materials are always evolving in some learning areas, for instance, set books in Literature in English. The school has developed a system of advising parents to buy set books for their children since the school cannot afford."

Responding to resource mobilisation SMB echoed:
"Through the School Development Committee (SDC) the school expanded its Wi-Fi network so as to make research by teachers and learners easy. We have Wi-Fi access points at teacher's houses, classrooms, laboratories and learner's hostels. In addition to that, the school has allowed 'O' level and 'A' level learners to bring laptops. This addresses issues of textbooks shortage."

On the availability of resources, SMD said:
"The school engages experts among the parents who are periodically roped in to fill in the gaps created by shortage of teachers. The school also encourages learners and teachers to use the learning centre in the school which was sponsored by parents in the form of a smart room to take advantage of the Wi-Fi and the computers therein for purposes of research."

SMA also added:
"The school with the assistance of parents mobilises resources both internally and externally and there is a deliberate initiative to use locally obtainable and affordable resources. The school also gets assistance from an alumni association which raises the requisite resources."

In the same vein SMC said:
"*The SDC employs relief teachers because the government does not replace teachers who go for maternity leave, sick leave or vacation leave, neither do they deploy new teachers when they introduce new learning areas."*

There is consensus between interview responses and document analysis on resources mobilisation. Minutes of School B staff meeting held on the 3rd of May 2018 has the following practice in order to address the issue of inadequate resources:

"The school installed WIFI, learners and teachers have access to research information on various learning areas can be downloaded from the internet. The school blocked some social media website so that learners are not distracted by non-academic material."

In the same vein minutes of School A staff meeting held on the 21st of November 2018 have this to say:

"The school is sourcing donations in cash or kind from Old Learners Associations (OSA). OSA sponsor categories such as best learner in sciences during Speech and Prize Giving day. There is internet which learners and teachers use for research."

There is a close link between minutes of Schools B, A and E. Minutes of School E held on the 19th of November 2018 captured the following sentiments:

"The school has a vote allocation for textbooks in the master budget. Each department receives an allocation every school term which is supposed to use towards purchases of textbooks. Learners studying literature in English buy own set books since the school cannot afford."

Minutes of School C staff meeting held on the 24th of January 2018 manifested the following:

"The SDC engages relief teachers to replace teachers on maternity leave, sick leave or manpower development leave. The government does not replace teachers who go for maternity leave, sick leave and manpower development leave during the school term."

Minutes of School D held on the 28th of November 2017 crowned it all by saying:

"The school gets learner teachers for teaching practices from universities and colleges. The installation of the internet gave a relief to the problem of shortage of textbooks"

These measures on resources mobilisation are confirmed by what happens in Pakistan. In order to ensure adequate resources the government of Pakistan formulated a National textbook and learning materials policy in 2007 to prop up effective implementation of the curriculum reviews through quality textbooks at affordable prices and other learning materials for promoting Pakistan as a knowledge-based society (Chishti, Tahirkheli, Raja & Khani, 2011:974.)

There appears to be a strong relationship between schools and the community in the effective implementation of the curriculum reviews. Why do we need that? We need that because the resources largely originate from the school community. The community provides material, financial and human resources which are critical in the implementation of the curriculum reviews. The current practices by school managers with regards to resources, needed for effective implementation of the curriculum reviews show that they are proactive. They appreciate the inadequacies of government provision and they have built a symbiotic relationship with the school parent community which helps to relieve the pressure of inadequate resources.

5.4.2.3 Teacher learner ratio

In a bid to reduce high teacher learner ratio, school managers make use of double sessions where learners are grouped for lesson attendance. There are rotational morning and afternoon lessons, with learners either attending lessons in the morning or in the afternoon. Teachers also make use of teaching methods such as group work which assist teachers to reduce the burden of high teacher learner ratio by dealing with groups of learners rather than individual learners.

SMA said:

"The school is making a deliberate attempt to reduce class sizes to manageable levels by limiting enrolment. The entry requirement for form ones is high and this eliminates a large number leaving manageable numbers per class."

SME also echoed:

"The school is engaging Midlands State University (MSU) who as part of their corporate social responsibility are always willing to sublet part of their staff to the school especially in the sciences to help learners. The school is also finding learners teachers handy in mitigating staff challenges as they are also given loads which should have been the responsibility of full-time teachers. The SDC also hires staff to reduce the astronomic loads on the teachers."

In the same vein, SMD also revealed the following:

"We limit class size by virtue of our high fees per term. This drives away a majority of learners whose parents cannot afford the fees thereby consequently limit our class size between thirty-five to forty learners."

SMC said the following:
"The school has a double session programme to cope with big classes. This means that there are classes that take place in the morning while other classes have lessons in the afternoon with different teachers for each session. This strategy has decongested our classes to manageable teacher learner ratios."

SMB shared the following:
"To deal with the large number of learners teachers use interactive teaching methodologies such as a group work and oral whole class discussions to reduce the burden of dealing with individual learning. As a government school, we are not allowed to deny any learner a form one place on the basis of poor performance. We enrol all the learners who would have been denied places by other schools."

There is concurrence between Interview responses and document analysis in dealing with teacher-learner ratio. Minutes of the staff meeting of School E held on the 27th of February 2018 also highlight strategies used to cope with high teacher learner ratio.
"The automatic promotion in the school system has ballooned the number of learners. Unfortunately, the government has no capacity to employ more teachers so that the number of learners is commensurate work with large number of learners, and this compromises the quality of learners."

In the same light minutes of School D staff meeting held on the 3rd of May 2017 academic board meeting revealed the following:
"*The issue of large class size is a challenge. Teachers use teaching methods which promote interaction among learners such as group work. The learners share the few textbooks that are available equitably."*

Minutes of School C staff meeting held on the 9th of March 2017 reinforced other schools' sentiments.

"The school uses double sessions where there are morning and afternoon sessions. Learners attend lessons on rotational basis in the morning and afternoon. The deployment of learner teachers lessons the burden of high-teacher learner ratio."

Minutes of School B staff meeting held on the 22nd of May 2017 also discussed the following:
"The school manager is expected to absorb all the aspiring learners in their zone when it comes to form one enrolment. In the majority of cases, the number of learners goes beyond the capacity of the school and the school enrols learners with good results to limit the enrolment."

Minutes School A staff meeting held on the 12th of October 2017also indicated strategies to reduce the apparent high teacher learner ratio:
"The school has a cut off point for form one enrolment in order to cut on the number of learners. Only learners who perform exceptionally well enrol with the school. This has seen the school enrolment reducing year in year out."

The findings of the study on measures to deal with high teacher learner ratio confirm the literature study. Cutting a big class into a small group is a strategy recommended by most researchers and teachers who are experienced in teaching large size classes. Pair work and group work as in large classes play an important part since they maximise learner participation (Ive 2000:35)

According to teachers in Asia, group work is a good way to manage the active learning of learners in large classes (Asodike & Onyeike 2015:32). Learners in large classes will have opportunities to work together, solve problems, a process that is also called collaborative learning or cooperative learning.

There is concordial agreement that large class sizes militate against effective implementation of the curriculum reviews, but school managers do not seem to fold their hands as shown by the interview responses and the document analysis. There are multiple strategies that school managers employ to try and minimize the negative impact of large teacher learner ratios. Schools implement school- based strategies which boarder on enrolment limitation, double sessioning and pedagogy as well as community- based strategies which are hiring learner teachers and accepting university lecturers as part of their corporate social responsibility. Their strategies are

both latent and manifest and the latent strategies are meant to cushion the school managers against policy regulations while the manifest strategies are meant to maintain the high standards of the school.

5.4.2.4 Teacher motivation

School managers struggle working with a demotivated workforce because of poor remuneration. There are school based energisers that school mangers employ to motivate teachers such as offering them free teas, lunches, accommodation and WIFI. Teachers are also given results-based awards.

SME voiced:
"Remuneration is always at the centre of motivation and performance. The ban of incentives in Zimbabwe was unnecessary and politically motivated. However, to restore a working spirit among the staff, the school has morphed up a performance related incentive under the SDC sponsorship for the teachers who would have performed well in public examinations."
SMA revealed the following:
"Acknowledgement of good work is done either verbally, materially or financially, for instance staff is offered free teas and lunches while at work. In addition to the above, resident teachers have free accommodation and those who compute from their residence are carried from town to school for free."

SMB confirmed teacher motivation strategies:
"The school holds a Speech and Prize Giving Day every year. It is on such forums that the school rewards teachers who would have produced good results and learners who would have done well. The teachers are rewarded according to the number of A grades they would have produced. The teacher results-based awards are sponsored by the SDC."

SMD echoed the same sentiments on teacher motivation strategies, by saying:
"Policy does not allow incentives. However, the school buys WIFI bundles for the teachers to use them for research and the administrators for communication with parents."

SMC seems to be following the policy on the ban of incentives (The Secretary's Circular Minute Number 6 of 2014) literally, he lamented:

"With the ban of incentives there is nothing that we can do as government schools. We leave the issue of salaries to teacher unions and labour unions."

There is a symbiosis between the interview responses and documents analysis on teacher motivation. Minutes of School E held on the 30th of January 2018 also highlight strategies used to cope with poor teacher remuneration:

"The ban of teacher incentives by the government demoralised teachers. The result-based incentives introduced by the SDC rekindled and motivated teachers to work. Teachers have also free accommodation at the staff quarters."

In the same light minutes for School D staff meeting held on the 24 October 2017 revealed teacher motivation strategies.

"Teachers who produced good results get awards during speech and prize giving day. The performing teachers also get a handshake from the school manager during assemblies. The school introduce an award for teacher of the year to motivate teachers to work."

On the contrary minutes of School B staff meeting held on the 17th of July 2017 captured the reactivity of the school.

"On the contrary, the school is following the policy on the ban of incentives. Teachers have no school-based benefits."

Minutes of School A staff meeting held on 21 November 2018 also revealed teacher motivation strategies.

"The school motivates teachers by offering them free teas, lunches, transport and accommodation. The school celebrates good results every year. Teachers look forward to celebrating good results and is a result they are forced to work."

Minutes of School C staff meeting held on the 24th of January 2018 manifested assistance given to teacher by the SDC.

"The SDC gives teachers food hampers in order to motivate them to work. Teachers also embark on a sponsored trip to neighbouring countries for shopping after producing good results."

The findings of the study ran congruent to the views in literature on teacher motivation. Incentives for curriculum reviews implementers are offered in negotiation and agreement methods. In fact, trade-offs for special benefits are arranged and successful implementation of the curriculum reviews is assured (Yilmaz &Kilcoglu, 2015:19.) Latvian schools gained more autonomy over funding of staff. The new system also provided an incentive to increase class size, rewarding an increased learner – teacher ratio. Implementation of the per – learner funding financing system was to be managed by the 118 new units of local government that is, municipalities established in July 2009. They are responsible for allocating funds for teachers' salaries to schools. Teachers are paid according to the number of learners at each grade regulations for class size and location of the schools (Ballou 2001:54).

The traditional response by teachers to any curriculum review is usually negative in view of what benefit it would give to a teacher. In order to maximize on implementation, this issue has to be addressed through motivation of the teacher. Motivation of the teacher has been shown to be through remuneration that is commensurate with work done. Since teachers always complain of low remuneration, school managers who participated in the interview and the records of meetings prove that there are schools which are content with the low motivation of teachers. However, there are also schools which are proactive through result-based awards, non-monetary benefits such as free food, accommodation, and transport and WIFI bundles.

5.4.2.5 Learner motivation

The challenge of learner resistance is redressed by school managers in various ways. Learners embark on field trips to boost their interests in learning. Good performance is recognised during assemblies by way of a handshake from the school manager. Learners who do exceptionally well also get awards during Speech and Prize Giving Days.

SMD said:

"The school organises field trips to boost learners' interest in the concepts taught. Learners enjoy going out hence the school takes advantage of field trips to achieve set objectives."

In the same vein, SMB explained:

"The school makes use of field trips to enhance learner's interest in learning. We also invite resource persons such as chiefs and headmen to explain their responsibilities in society for Heritage Studies and History lessons."

In a bid to boost learners' interest in learning, SME has this to share:
"Resistance usually is a result of lack of information, conflicting perceptions and narrow mind-set. School E through the H.O.Ds has taken it upon itself to educate learners on the need to appreciate the objectives of the implementation of the curriculum reviews. This has been done through seminars."

SMC in a way to boost learners' interest echoed:
"The school has a tradition of parading learners 'performance that is the top ten performing learners and those who would have failed to secure five subjects (bottom ten.) This practice has seen most learners working very hard to avoid falling in the bottom ten. The top ten performing learners receive a handshake from the school manager during assemblies."

SMA shared the same sentiments by saying;
"The awarding of merit badges on monthly basis has enhanced the interest of learners. Learners who would have performed well during the course of the month get merit badges per subject. The learner who would have scooped more merit badges is crowned learner of the month. The learner is awarded a certificate and prize money. This strategy of awarding monthly merit badges has instilled a sense of competition among learners."

There is connection between interview responses and document analysis. Minutes of school C held on the 24th of January 2018 revealed learner motivation.
"Learners embark on educational trips such as visiting the Zimbabwe Great monuments. Educational trips are guided by the Ministry of Primary and Secondary Education policy which the schools adhere to."

Minutes of School D staff meeting held on the 28th of November 2017 also manifested the same spirit.

"*The school sponsors seminars which gives learner to hold academic discussions with learners from other schools on given topics. A facilitator who is a veteran in subject area is engaged to expedite discussions. Educational tours are also conducted to allow learners to have hands on."*

Minutes of School E staff meeting held on the 19th of November 2018 also expressed the same views.

"The school parades learners' good, bad and improved performance. Learners who show great improvement receive a handshake from the school manager during assemblies. Learners are encouraged to work hard. The strategy has seen improving its academic results, learners attends seminars and hold discussions with learners from other schools."

In the same manner minutes of School B staff meeting held on the 21st of June 2017 have this to say:

"The school holds Speech and Prize Giving days. Learners' efforts are in all disciplines be it academic, sport and behaviour. Speech and Prize Giving days steer learners to work hard so that they get the recognition."

Minutes of School A staff meeting held on the 21st of November 2018expressed learner motivation strategies.

"*The school invites key persons in the society to give motivational talks to the learners making reference to curriculum reviews implementation. Other professionals are also engaged to inspire learners embark on field trips and take part in seminars."*

Yimaz and Kilicoglu (2013:21) disconfirmed learner motivation and suggested that school managers may utilise the force of their authority for acceptance of the implementation of the curriculum reviews. Learner resistors are threatened with undesirable situations if they do not go along with the implementations of the curriculum reviews. However, it should be kept in mind that there are negative effects of using coercion such as frustration, fear, revenge and alienation which may in turn give birth to ineffective implementation of the curriculum reviews.

Learners, just like teachers, are concerned about what difference it makes. Learners also feel that they have to be consulted in the review of curricula. Unfortunately, learners are at the receiving

end of the curriculum reviews which justifies learner resistance. School managers must deal with learner resistance if effective implementation of curriculum reviews is to be achieved.

5.4.2.6 Communication

The school managers do not watch things going down the drain. In order to enhance communication in the implementation of curriculum reviews, school mangers make use of end of term circulars to keep the parents abreast of the implementation of curriculum reviews. Annual General Meetings and Extra Ordinary Meetings are also forums of discussions for the school and parent assembly. The media social sites are taken advantage of to communicate to parents, teachers and learners.

SMA revealed the following:

"The school has adopted the use of termly curricular to communicate with parents and important stakeholders on the implementation of the curriculum reviews. The school takes advantage of the curricula as a mode of communication to demystify some issues surrounding the implementation of the curriculum reviews."

SMB to enhance communication said:

"Teachers are opening WhatsApp chat groups with learners for further consultation, if a learner requires additional information on the implementation of the curriculum reviews. The school uses public media platforms such as Zimbabwe Broadcasting Corporation (ZBC), radio for communication with parents regarding the implementation of the curriculum reviews."

In the same spirit SMD uttered the following:

"The school has opened WhatsApp platforms for different stakeholders for instance a chat group for forms one to six parents, administration chat group, school development committee and teachers chat groups to enhance communication among members. The stakeholders have these platforms to discuss issues surrounding the implementation of the curriculum reviews."

Along the same line SMA echoed:

"Regular meetings such as academic board meetings, school development committee meetings and annual general meetings where parents or guardians are invited to the school so that they

are upraised on the implementation of the curriculum reviews are convened. The school makes frantic effort to bridge communication gaps between the school and its stakeholders."

In the same way SMC said:

"The school engages in vigorous staff development workshops. If the school realises a knowledge gap with regards to the implementation of the curriculum reviews, a resource person is invited who staff will develop teachers on areas they may not be conversant with. These staff development workshops help in ironing out grey areas."

There is a link between interview responses and document analysis. Minutes of School B meeting held on the 22nd of May 2017 revealed efforts made by the school to enhance communication among members.

"Teachers formed WhatsApp chat groups with learners especially during school holidays to give learners homework. Learners also seek clarity on challenging tasks via this forum. The school makes use of assemblies to disseminate pertinent information about the implementation of curriculum reviews."

In the same vein minutes of School C meeting held on the 28th of November manifested the same views:

"Parents attend annual general meetings to discuss issues about the school and extra ordinary meetings if there is any information that needs to be discussed and have their input. The school takes advantage of notice boards and assemblies to announce important information."

Minutes of School E meeting held on the 27th of February 2018 shared strategies to enhance communication.

"*The school holds staff meetings with teachers to discuss issues to do with curriculum reviews implementation. Learners through consultation days with the school manger express their concerns and opinions about curriculum review implementation. School assemblies are other forums used to communicate information to both staff and learners."*

In the same manner, minutes School D meeting held on the 20th of September 2017 captured school-based modes of communication.

"The school communicates with parents through and of term circulars where parents are kept abreast of implementation of curriculum reviews. WhatsApp chat groups are other platforms the school uses to communicate and address issues that may crop during the course of the term."

Minutes of School A meeting held on the 14th of February 2017 raised school-based policies.
"The school has an open-door policy where learners or teachers approach the school manager's office on issues that need attention. The school manager takes advantage of consultation days with learners to address issues to do with the implementation of curriculum reviews. Assemblies and staff briefings are platforms of holding discussions and conveying important messages."

The study findings on motivation of learners are in agreement with the views by Yimaz and Kikoglu (2013). Yilmaz and Kikoglu (2013:20) say in the school settings, defensive and negative attitudes displayed by teachers should be handled by school principals and administrators as change agents. Therefore, the school managers have an obligation to educate individuals in the school organisation about the nature of and need for change before implementing the curriculum reviews. Teachers should be allowed to contribute ideas and advices that help in the implementation of the curriculum reviews.

There is consensus that communication with relevant stakeholders in the implementation of the curriculum reviews is very important. The various modes of communication that the participating school managers highlighted to be in use indicate that communication leads to effective implementation of the curriculum reviews. These modes allow for reverse communication which helps to identify areas of strengths and weakness in the implementation process. Regular feedback enables school managers to swim in the same current with learners, parents and the parent ministry.

5.4.2.7 Policy regulations

Although policy issues are not easy to handle, school managers make use of National Association of Secondary School Heads (NASH) forums to conscientise the employers about some of the challenges faced by school managers in the implementation of curriculum reviews. From the given policies and literature study, the school managers expressed their views on the impact of policy regulations on the implementation of the curriculum reviews.

SME lamented:

"The school remains connected to significant people in the community and political authorities so that wayward political behaviour of some stakeholders is tamed. The school also utilises communication lines with the law enforcement agents such as Zimbabwe Republic Police (ZRP), the mayor, and the Minister of State for their intervention in case of emergence emanating from overzealous political elements."

SMD also confirmed political interference in policy regulations:

"Politicians are human beings who need education on policy especially the constitution. Once politicians realise that school managers are sources of knowledge instead of interfering, they will seek guidance."

Addressing the same challenge of political interference SMA had this to say:

"The school makes a deliberate attempt to bring on board all influential political players. Overall, all stakeholders including politicians need to be valued, their contributions accommodated to ensure all players feel they are key in the implementation of thecurriculum reviews. School managers work to provide guidance in the smooth and successful implementation of the curriculum reviews."

SMB in an attempt to deal with political interference in the implementation of the curriculum reviews added:

"The school takes advantage of politicians within the locality by inviting them and educating them on the implementation of the curriculum reviews. The school anticipates that during public gatherings, the politicians will in turn spearhead the objectives of the curriculum reviews."

SMC also highlighted the following in dealing with political interference in the implementation of the curriculum reviews:

"With regards to the issue of policy hindrance where for example if you want more funds to buy the textbooks you are unable to send children back home to collect money from the parents, it's very difficult to deal with policy hindrance, What we do is to continue to use National Association of Secondary Heads (NASH) platforms, to try and discuss these issues so that we sensitise the employer on these matters."

There is concordial agreement between interview responses and document analysis on policy regulations. Minutes of School B meeting held on the 3rd of May 2018 expressed strategies to deal with learner indiscipline.

"The school has a disciplinary committee that sits down to deliberate on learners in disciplinary actions. Parents of the learner concerned are invited and recommendations are made to correct the behaviour. Learners are referred to the school's guidance and counselling department so that they are assisted to desist from undesirable behaviour."

Minutes of School E meeting held on the 27th of February 2018 revealed strategies to encourage payment of fees.

"Through annual general meetings, extra ordinary meetings and end of term circulars, parents are reminded of their obligation to pay fees towards the education of their children. Parents with financial problems are invited to the school so that a solution may be made."

Minutes of School D meeting held on the 28th of November 2017 manifested persuasion strategies for fees payment.

"The school encourages parents who struggle paying fees for their children to apply for scholarship with financial bodies such as Capernaum. Learners' charitable clubs such as the Leos Club make fundraising activities to raise money towards learners whose parents struggle paying fees."

Minutes of School A meeting held on the 21st of November 2018 has this to share with regards to in disciplinary issues.

"Staff at the school take turns to present assemblies' themes and it is during presentation of assembly themes that learners receive input that shape their discipline. Learners that are well disciplined get recognition during assemblies. Learners are educated through assemblies to use school properly responsibly."

Minutes of School C meeting held on the 28th of November 2017 shared handling of political figures.

"Politicians who hold key positions in the society are roped in during school functions to sensitise parents on their obligation of investing in the education of their children. The SDC

during annual general meetings persuades parents to honour their obligation of paying fees towards the education of their children."

Curricula number 3 of 2019 expound that no child shall be send home for non-payment of fees. This policy was realized after Tag a Life International (TaLI) supported by Zimbabwe National Council for the Welfare of Children ZNCWC, Women's Coalition of Zimbabwe (WCoZ), Justice for Children (JCT), Matimbure Trust, Citizens Manifesto, Girls and Women Empowerment Network Trust (GWENT), and more than 270 organisations across the country petitioned the Ministry of Primary and Secondary Education asking for a policy to allow poor children of school going age access into schools. The imposition of corporal punishment and any form of physical punishment to children by any person or persons including teachers, parents or relatives is ultra vires the provision of section 81, 51 and 53 of the constitution of Zimbabwe.

Section 81 of the constitution adopted in 2013 includes the following provisions:

Every child, that is every boy and girl under the age of eighteen years, has the rights-……

(e) To be protected from economic and sexual exploitation, from child labour, and from Maltreatment, neglect or any form of abuse.

Section 51 Right to human dignity

Every person has inherent dignity in their private and public life, and the right have that dignity respected and protected.

Section 53, freedom from torture or cruel, inhuman or degrading treatment or punishment

No person may be subjected to physical or psychological torture or to cruel, inhuman or degrading treatment or punishment.

Heads of departments just like school managers are concerned about why politics interferes with the implementation of the curriculum reviews. The ban of corporal punishment seems to have paused challenges on the discipline of learners since it was used to deter learners from indiscipline. There is a very thin line between policy regulations and politics hence the interference. The interview responses and minutes of academic board meetings show that school managers are working within the parameters of school regulations in order to help in the effective implementations of the curriculum reviews.

5.5 THEME THREE: MEASURES THAT CAN BE DEPLOYED BY SCHOOLMANAGERS IN THE IMPLEMENTATION OF CURRICULUM REVIEWS

After the analysis of the data with school managers as well as document analysis, a third theme emerged thus, measures that can be deployed by school managers in the implementation of curriculum reviews. Various categories emerged on the responses to the question what measures can be deployed in the implementation of curriculum reviews. Categories that emerged are:

- Effective management
- Availability of resources
- Training of teachers
- Involvement of stakeholders
- Teacher motivation
- Evaluation

The measures that emerged uphold complexity theory expounded in the literature data. Complexity theory is linked to the empirical data supplied by the five secondary schools in Gweru Urban District. Complexity theory asserts that team building (collaboration) involvement of stakeholders (connectedness), communication, training of teachers (self-organisation) evaluation (feedback) are crucial elements in the implementation of curriculum reviews.

5.5.1 Effective Management

School managers are drivers of effective implementation of curriculum reviews. Training of school managers empowers them to lead from the front. School managers set an example of hard work to teachers if they are empowered to lead implementation of curriculum reviews. School managers who are positive with curriculum reviews work hard towards its successful implementation. Everything rises and falls on management, if the management priorities the implementation of curriculum reviews, the vigour of the management will be transferred to teachers, learners and other stakeholders and the reverse is true.

SME echoed:

"School leaders should be equipped enough to lead curriculum reviews. If school leaders are knowledgeable of curriculum reviews from its inception to the implementation stage, it follows that they will be able to impart the same knowledge to teachers, learners and other stakeholders".

In the same vein SMB raised the same concern on the need to empower the school managers to lead curriculum reviews. She said:

"A blind person cannot lead another blind person. School leaders should be enlightened on the implementation of curriculum reviews from the preliminary stage up until the implementation stage so that they perform their roles of leading the implementation of curriculum reviews responsibly."

In support of establishing a strong leadership workforce, SMA expressed:

"School leaders are agents of curriculum reviews change, as such they are supposed to spearhead its effective implementation. This is only possible if they are empowered to do so."

SMD confirmed the critical role of school leadership in the implementation of curriculum reviews:

"The school head is the driver of the implementation of curriculum reviews. A driver can only take passengers to their destination if he is licenced and if he knows the routes. School leaders are licenced, but they should be given knowledge of the implementation of curriculum reviews so that they see to its successful implementation."

SMC echoed the same sentiments on the need to sensitise and empower the school leaders in curriculum reviews implementation:

"The Ministry of Primary and Secondary Education should acknowledge and recognise the important role that school leadership plays in the implementation of curriculum reviews by offering workshops for school leaders so that they can be given the shock absorbers for the journey that leads to effective implementation of curriculum reviews."

There is agreement between interview responses and document analysis on the need to establish effective management. In the same light minutes of staff meeting for school B held on the 18thof

January 2017 revealed the need for school leadership to be knowledgeable of the implementation of curriculum reviews. Teachers look up to school leaders when it comes to curriculum reviews implementation. Information on curriculum reviews implementation cascades from the Ministry of Primary and Secondary Education via Head office, Provincial offices and District offices until it reaches the school manager. The school manager who is the representative of the Ministry of Primary and Secondary Education should be equipped with the tools to influence effective implementation of curriculum reviews.

Minutes of School A staff meeting held on the 30th of November 2017 in support of School B emphasised the important role of the school manager in the implementation of curriculum reviews:
"The school manager was making frantic efforts to ensure effective implementation of curriculum reviews. Unfortunately, he was in the same sceneries with the teachers since he could hardly interpret the requirements of the implementation of curriculum reviews. There is need to empower school managers to lead the implementation of curriculum reviews."

On the contrary, minutes of School D staff meeting held on the 14th of February 2017 expressed indifference over the need to empower school managers in the implementation of curriculum reviews:
"The school manager who is not trained and empowered to lead the implement curriculum cannot be expected to perform wonders curriculum reviews implementation. One can only give what one has."

School E minutes of the staff meeting held on the 15th of March 2017 in support captured the importance of investing time in making school leaders understand the expectations of the implementation of curriculum reviews:
"School mangers at all levels should be made to understand academic standards, content area expectations and the design of curriculum reviews so that they may be able to make informed decisions related to curriculum review implementation."

Literature data confirms the important role of management in the implementation of curriculum reviews. The escalation of the implementation of curriculum reviews demands ingenious management, a school manager who sets the pace, takes directions, motivates and inspires

teachers to keep moving ahead in spite of the challenges that they encounter. School managers need to encourage and empower, and their conduct should be transparent and trustworthy so that there is buy-in from all the stakeholders (Day, Gu & Sammons (2016:228)

Day *et al.*(2016) is supported by Mulford (2003:18) who said that good school managers are in the thick of things, working alongside their colleagues, respecting teachers' autonomy, protecting them from extraneous demands and look ahead, anticipate change and prepare people for it so that it doesn't surprise or disempower them.

Complexity theory guiding this study sees schools as self-organising, complex emergent, nonlinear with which different forms of differentiation occur. School managers according to complexity theory have an inherent propensity to power themselves up and make things work. It follows that if school managers are empowered, their managerial skills can help establish nonlinear systems which can assist in the effective implementation of curriculum reviews. Rules that govern the implementation of curriculum reviews should be flexible to allow school mangers to establish self-organising schools built on units which are autonomous, networked and connected with rich communication.

5.5.2 Availability of resources

Effective implementation of curriculum reviews hinges on physical facilities such as infrastructure and equipment. Adequate finances allow budgets for procuring up to date tools and equipment and repairing old equipment. Adequate finances and adequate physical facilities provide higher opportunities for the implementation of curriculum reviews.

SMA said:
"Curriculum reviews implementation should kick start when all the required resources have been put in place. The availability of the resources determines whether curriculum reviews will be effectively implemented or not."

SMC emphasised the importance of resources in curriculum reviews implementation:
"Resources are the required tools for effective implementation of curriculum reviews. The Ministry of Primary and Secondary Education should source resources first before implementation of curriculum reviews"

In the same vein, SME expressed the following:

"To yield a bumper harvest, a lot of implements are required. For effective implementation of curriculum reviews, there is need to establish a strong resource base. The stronger the resource base, the higher the chances of effective implementation of curriculum reviews"

In support of mobilisation of resources for effective implementation of curriculum reviews SMB added her voice:

"The Ministry of Primary and Secondary Education should ensure resources are mobilised before implementation of curriculum reviews. The availability of resources shapes the direction of curriculum reviews, the more resources are availed the higher the opportunities for effective implementation of curriculum reviews."

SMD also highlighted the importance of resources in curriculum reviews implementation. He said:

"The implementation of curriculum reviews usually brings new concepts which require new textbooks and equipment. All these require a strong financial base. Maintenance of old equipment also requires funding."

There is a link between interview responses and data analysing on the head to ensure availability of resources in the implementation of curriculum reviews. Minutes of School C staff meeting held on the 28 November 2017 manifest the importance of human resources in the implementation of curriculum reviews:

"When new concepts are introduced such as the introduction of computers there is need to increase staff to cater for the new learning areas. When new learning areas are introduced, authors should be given time to write books about the new concepts so that teachers have relevant teaching material to make reference to."

The minutes of School D staff meeting held on the 20th of September 2017 expressed the need for renovations:

"The importance of renovating science laboratories and maintaining science equipment. The need to buy new textbooks was noted since most textbooks were torn."

School B minutes of the staff meeting held on the 22nd of May 2017chronicled that the need to address textbook ratio and understanding:
"There was need to buy more textbooks to improve on learner textbook ratio. The need to address the issue of understaffing in the department was noted so that teachers do not work with heavy loads."

Minutes of School E staff meeting held on the 27th of February 2018 deliberated on the need to buy more science equipment and textbooks to improve the quality of learning:
"Replacement of science teachers was requested to ease the burden of overloads in the department. Effective implementation of curriculum reviews requires sourcing of adequate resources."

Minutes of School A held on the 14th of February 2017 confirmed the need to source more teaching material:
"The need to source resources such as textbooks, science chemicals and equipment from the Old Learner Association (OSA) and the business community for the successful implementation of curriculum reviews. There is a relationship between the availability of resources and effective implementation of curriculum reviews."

The literature study confirms the importance of resources in the implementation of curriculum reviews. Relevant equipment, material and tools such as workshops, laboratories, lecture rooms and reference texts are required in the implementation of curriculum reviews. For instance, the textbooks are useful for instructional content while the rooms (workshops, laboratories and lecture rooms) provide an environment for learners to interact with the content to achieve the intended curriculum review implementation aims and objectives (Kigwilu & Akala, 2017:372)

Resource mobilisation is possible if schools are connected and networked to external organisations. Connectedness and interaction are key elements of the complexity theory. Schools should interact with the business community they trade with for resource mobilisation.

5.5.3 Teacher Motivation

Improvement of teacher working conditions such as class size, availability of teaching resources, the quality of the school managers' supervision, decent salaries status and security of teachers motivate them to implement curriculum reviews. Teacher motivation is critical in the implementation of curriculum reviews since teachers are the implementers of curriculum reviews.

SMA stressed the importance of teacher motivation for effective implementation of curriculum reviews:
"The Ministry of Primary and Secondary Education should consider the issue of teacher motivation to ensure effective implementation of curriculum reviews. Teacher salaries should be reviewed upwards for them to lead a decent life."

In support of teacher motivation, SMD mentioned the issue of classroom related working conditions:
"The large classes that teachers work with should be reduced so that they work with manageable numbers of learners. The Ministry should approve fees according to school budgets so that school manager will be able to procure adequate teaching material for effective implementation of curriculum reviews. Over and above the stated factors, there is need to look into teacher salaries which is below the poverty datum line."

SMB also highlighted the importance of teacher motivation in the implementation of curriculum reviews. She said:
"The Ministry of Primary and Secondary Education should restore the dignity of the teaching profession by giving teachers meaningful salaries. The promotional posts should be remunerated accordingly so that teachers with posts of responsibilities such as heads of department may be motivated to carry out their supervision roles for effective implementation of curriculum reviews."

In the same light SME added:
"The poor salaries of teachers need to be reviewed upwards for them to be motivated to work. Teachers as curriculum review implementers should regain their morale to work with the

improvement of working conditions such as substantial retirement packages and improved job security."

There is synergy between interviews responses and document analysis. SMB in the same light echoed:
"The Ministry of Primary and Secondary Education should reduce the burden of school leaders who work with a burn out workforce by motivating teachers through increasing their salaries and improving their working conditions. Teaching material should be in abundance to allow effective implementation of curriculum reviews."

The minutes of School B held on the 21st of June 2017 revealed teacher burnout:
"Teachers who are frustrated and demoted need their spirits rekindled for effective implementation of curriculum reviews. The school managers to limit enrolments so that teachers work with reasonable number of learners. Teacher poor salaries needed a review."

School C minutes of staff meeting held on the 24th of January 2018 highlighted the need for a general salary increment for teachers:
"The infrastructure of the school needed maintenance. Teaching material such as textbooks required attention since they were torn."

Minutes of School E staff meeting held on the 12th of October 2017 highlighted the need to reduce the class sizes:
"Teachers are able to give individual attention if the class sizes are manageable. Teacher to get a salary increase to lead decent lives."

School A minutes of staff meeting held on the 20th of September 2017 discussed the need for Public Service to consider increasing teachers' salaries so that teachers are motivated to work:
"The school to procure textbooks in order to improve the quality of teaching and learning school managers to face lift the infrastructure of the school so that the requirements of implementation of curriculum reviews are met."

Minutes of School D held on the 28th of November 2017 staff meeting confirmed the need for teacher motivation in the implementation of curriculum reviews:

"Teachers are motivated to work if their salaries sustain them. Provision of adequate resources is a prerequisite for effective implementation of curriculum reviews."

The literature (Utomo, 2018:334) depicted that motivation is closely related to needs. A teacher is motivated when his/her needs are met, thus the needs of teachers affect their motivation. Teachers' needs such as good remuneration and working conditions should be met first so that they are motivated to implement curriculum reviews. Motivation is a determinant of good results hence the need for the Ministry of Primary and Secondary Education to motivate teachers by addressing their needs for effective implementation of curriculum reviews.

Complexity theory talks of positive feedback which attracts positive returns. Teacher motivation is therefore in line with complexity theory. If teachers are motivated to work, they ensure effective implementation of curriculum reviews.

The literature study confirms empirical data. In the same line, Asiyai (2013:165) said recognition and feedback are important motivators, thus it follows that evaluation is a significant vehicle for using these incentives to direct the teacher towards effective implementation of curriculum reviews. Recognition and feedback are crucial elements in complexity theory. Teachers' work should be recognised by giving positive feedback where teachers are doing well; negative feedback should be given where there is a deviation in the implementation of curriculum reviews. Increased teacher salaries and improved working conditions are forms of positive feedback in recognising teachers' role in the implementation of curriculum reviews.

5.5.4 Teacher training

Training and retraining of teachers are a precondition for effective implementation of curriculum reviews:

"Consistent retraining of teachers improves the capability of teachers in the implementation of curriculum reviews. Effective implementation of curriculum reviews requires a constantly and regularly updated teaching workforce that is trained to acquire skills for curriculum reviews change."

SMC said:
"Implementation of curriculum reviews require training of teachers who are curriculum reviews implementers. Teachers should be trained from the onset so that they fulfil the expectations of the implementation of curriculum reviews."

In support of teacher training, SMA added:
"Significant staff development workshops are critical so that teachers are equipped with the necessary skills to ensure effective implementation of curriculum reviews. Battles are won the day before which means that training of teachers as a preliminary measure towards implementation of curriculum reviews is paramount."

SMD also confirmed the importance of training in the implementation of curriculum reviews:
"There is need for training of teachers so that they acquire the necessary skills to implement curriculum reviews. Training gives teachers confidence to deliver curriculum review content."

In the same view SMB said:
"Teachers effectiveness in the implementation of curriculum reviews is determined by the training they receive. The quality of training the teacher receives to a larger extent determines the outcome of curriculum reviews implementation."

SMC also stressed the importance of teacher training in curriculum reviews implementation:
"There is need for adequate teacher training which can only be achieved through attendance of meaningful training workshops. In addition to this, resources should be sourced and made available so that teachers have the necessary tools for the job. Reducing the class sizes enhances attention given to individual learners."

There is an emergent pattern between interview responses and document analysis. Minutes of School B staff meeting held on the 3rd of May 2018 manifested the importance of teacher training in the implementation of curriculum reviews.
"Teachers require robust training of implementing curriculum reviews. Every curriculum review brings new things be it content or methodology. Therefore, there is need for teachers to be oriented and given direction on how to manoeuvre the implementation of curriculum reviews."

The minutes of staff meeting of School D held on the 24th of October 2017 also revealed the importance of increasing the duration of teacher training programmes:
"The one-day workshops offered by the Ministry of Primary and Secondary Education should be extended so that the training of teachers becomes intensive and meaningful. Teachers should be prepared to implement curriculum reviews effectively through proper training."

Minutes of School A staff meeting held on the 21st of November 2018 captured teacher training as paramount in the implementation of curriculum reviews:
"Training of teachers should be an ongoing process since the methodology content of curriculum reviews implementation change time and again. The content and methodology of curriculum reviews need to be compatible with curriculum review packages."

School C minutes of the staff meeting held on the 17th of July 2017 manifested in the importance of teacher training:
"The Ministry of Primary and Secondary Education should prioritise training of teachers as an important ingredient for effective implementation of curriculum reviews. All the teachers should receive equal training so that they develop confidence in implementing curriculum reviews. Training a few teachers and expecting them to train their counter parts later is not the best way of empowering teachers to implement curriculum reviews."

Minutes of School E held on the 30th of January 2018 in the same light highlighted the importance of curriculum reviews in the implementation of curriculum reviews:
"Training of teachers who are frontlines in the implementation of curriculum reviews should be done stage by stage and within a stipulated reasonable time. Teachers need to acquire skills and pedagogy in order to implement curriculum reviews go with new skills and methodology hence the need for retraining."

Literature data is in consistent with this empirical study. The literature data states that the need to train and retrain teachers in the implementation of curriculum reviews is self-evident, every curriculum review requires training in new skills. For effective productivity of teachers, teachers must be effectively trained and retrained (Foluke, 2009:293).

Teachers need to be connected to curriculum review planners through training for effective implementation of curriculum reviews. Connectedness is one of the principles of complexity theory. The principle of connectedness makes teachers collaborate and own curriculum reviews which make its implementation easier. Teachers also require positive feedback which can be monetary or non-monetary to motivate them to work. Giving positive feedback is also one of the principles of complexity theory.

5.5.5 Involvement of stakeholders

The implementation of curriculum reviews is a complex process which cannot be approached in a linear fashion. The involvement of stakeholders who are the Ministry of Primary and Secondary Education and parents as independent agents that interact and learn from each other ensures effective implementation of curriculum reviews. The interactions of stakeholders are critical in curriculum reviews since no organisation can dictate the implementation of curriculum reviews. Stakeholders can influence the objectives of the implementation of curriculum reviews hence their involvement in curriculum reviews is necessary.

SMD echoed:
"The Ministry of Primary and Secondary Education should consider seriously involvement of school leaders, teachers and parents in curriculum reviews from the onset up to the implementation stage. Curriculum reviews implementations that have been successful in other countries that we read in books have had the support of school heads, teachers, learners and parents."

In support of involvement of stakeholders SMB said:
"School leaders are the drivers of curriculum reviews implementation hence their involvement should empower them to play their critical roles confidently. Teachers who are curriculum review implementers should be roped in, in issues to do with curriculum reviews from the beginning up to the implementation stage so that they own curriculum reviews."

SMA shared the same sentiments on the involvement of stakeholders:
"For curriculum reviews to achieve its aims and objectives, the curriculum development unit should involve all stakeholders in the crafting of curriculum reviews so that its implementation

becomes easier. It does not make sense to leave out school heads, teachers, learners and parents in crafting curriculum reviews and anticipate them to play their roles effectively."

SMC in support emphatically stressed the importance of involvement of stakeholders:
"Implementation of curriculum reviews is a mammoth task, it requires all stakeholders to put their heads together to ensure its success. School leaders who lead curriculum reviews implementation, teachers who translate curriculum reviews and parents who fund the education of their children are important stakeholders who should be immensely involved in curriculum reviews."

SME also shared the same views on the involvement of stakeholders:
"To enhance successful implementation of curriculum reviews, there is need for the Ministry of Primary and Secondary Education to involve all stakeholders in curriculum reviews implementation. Learners who are beneficiaries of curriculum reviews should be involved and their voices heard. Curriculum reviews implementation requires funding, parents who are sources of school revenue should also be involved. It's needless to mention the role played by school heads, teachers, the business community and other stakeholders, their involvement easy the implementation of curriculum reviews."

There is common ground between interview responses and document analysis. Minutes of School E held on the 11th of May 2018 highlighted the importance of the involvement of stakeholders:
"There is need to involved teachers as curriculum reviews implementers from inception to the implementation stage. The role of teachers in curriculum review implementation cannot be underestimated therefore their involvement matters."

School B minutes of staff meeting held on the 3rd of May 2018 also revealed the importance of teacher involvement in curriculum reviews:
"More often than not teachers are only involved in curriculum reviews at implementation stage. Teachers are expected to implement something they did not help to create hence the hiccups in curriculum reviews implementation."

Minutes of School C held on the 14th of March 2018 also confirmed involvement of stakeholders as critical in curriculum reviews implementation:
"The school head who leads the implementation of curriculum reviews should be deeply involved in curriculum reviews so that he will be able to give guidance to teachers. Learners who are the reason for curriculum reveals should be consulted so that their views are considered."

Minutes of School D held on the 28th of November 2018 also captured the importance of involving stakeholders in curriculum reviews from inception up to its implementation:
"Curriculum reviews require involvement of all the people who will put a hand or have anything to do with its implementation. Parents who provide finding of the education of their children should be involved so that they give financial and moral support to their children, the same applies to school heads, teachers, learners and other stakeholders."

School A staff meeting held on the 21st of November 2018 manifested the importance of involving stakeholders in curriculum reviews implementation:
"Successful implementation of curriculum reviews requires the support of school leaders, teachers, learners, parents and the business community. School leaders give guidance to the implementation of curriculum reviews while teachers are the implementers. Learners are the beneficiaries of the implementation of curriculum reviews which should be funded by their parents. The business community also play an important role of making available resources required for the implementation of curriculum reviews."

The literature section confirms the importance of involvement of stakeholder in curriculum reviews implementation. Curriculum reviews require the input of different stakeholders such as teachers, school heads, parents, community members, learners, district administrators and school boards. Teachers translate curriculum reviews into practice while school managers monitor the implementation of curriculum reviews. The parents, on the other hand, influence the implementation of curriculum reviews through financial resources inform of fees payment. Professional bodies such as psychologists and social workers offer support to learners with special needs (Ulewicz,2017:99).

The advocacy of the involvement of stakeholders in the implementation of curriculum reviews is in line with the tenets of complexity theory which are connectedness, collaboration, interaction

and communication. Stakeholders should be connected to curriculum review planners so that they collaborate for the effective implementation of curriculum reviews. Curriculum development unit should communicate efficiently and interact with stakeholders in the implementation of curriculum reviews. Both top down and bottom up strategies are necessary for stakeholders depending on the context. In the areas that needs consultation CDU should make use of bottom up strategies while issues which require dissemination of information after decisions have been made need top down approach.

Communicating with stakeholders can help build a coalition of supporters that can influence effective implementation of curriculum reviews. Teachers are more likely to be enthusiastic about using new pedagogies if they were involved in the decision to choose them.

5.5.6 Evaluation

Implementation of curriculum reviews requires evaluation. Every programme needs to be evaluated in order to ascertain its strengths and weaknesses. Thus, evaluation of the implementation of curriculum reviews will enlighten curriculum review planners and users on the direction taken by the programme. A programme that is not evaluated is not worth implementing. Both formative and summative evaluations are necessary in the implementation of curriculum reviews. As the programme progresses, there is need to conduct formative evaluation so that if there are gaps noted, they are closed on time. At the end of the programme, summative evaluation should be employed to find out if the programme has achieved its objectives.

SME said:
"Socrates one of the philosophers said that life without examination is not worth living. It also follows that a programme that is not evaluated is not worth implementing. There is need to evaluate the implementation of curriculum reviews."

In support of conducting evaluation in the implementation of curriculum reviews, SMA asserted:
"Effective implementation of curriculum reviews is only possible if the evaluation exercise is taken seriously. As implementation of curriculum reviews progress, there is need to evaluate the programme so that if there are weaknesses noted they may be addressed."

SMD confirmed the need for evaluation of the implementation of curriculum reviews:
"A stitch in time serves nine. Evaluation of the implementation of curriculum reviews should unearth weaknesses which should be addressed head on so that implementation of curriculum reviews does not suffer still births."

SMC in the same light shared the following:
"Evaluation of the implementation of curriculum reviews is very important to both curriculum reviews and users. There is need to evaluate how the implementation of curriculum reviews have kick started, how they are progressing and eventually if the intended curriculum review implementation has been achieved."

SMD also shared the same sentiments:
"The implementations of curriculum reviews require evaluation. Stakeholder cannot operate in the dark not knowing whether the implementation of curriculum reviews is smooth or not. Constant feedback should be given to both curriculum planners and users so that if need arise, intervention strategies can be employed."

Minutes of School C held on the 17th of July 2017 manifested the importance of evaluating curriculum reviews programmes:
"There is need to evaluate the implementation of curriculum reviews. The implementation of the Two Pathway system was interpreted differently by its users. If an evaluation was done the uniformity in its implementation could have been picked and addressed."

School A minutes of staff meeting held on the 21st of November 2018 revealed the need for constant evaluation in the implementation of curriculum reviews:
"The implementation of curriculum reviews should be evaluated in stages. After introducing a curriculum review there is need to evaluate if its implementation has taken the right direction and towards the end of programme to assess its effectiveness."

There is consensus between interview responses and document analysis. School E minutes of the staff meeting held on the 27th of February 2018 supported the idea of carrying out an evaluation

exercise in the implementation of curriculum reviews is a complex process which requires careful attention all the time:
"Evaluation of curriculum reviews implementation will provide feedback both to the curriculum review planners and its users."

Minutes of School D staff meeting held on the 24th of October 2017 captured the importance of evaluation:
"The reason why the implementation of most curriculum reviews flopped is just because there was no constant evaluation to find out how it kick-started, how it is progressing and whether it will be able to achieve its objectives or not. Evaluation of the implementation of curriculum reviews should be considered on important factor towards achieving successful implementation of curriculum reviews."

School B minutes of the staff meeting held on the 3rd of May highlighted the importance of evaluation in the implementation of curriculum reviews:
"The implementation of curriculum reviews needs to be serviced and refiled just like a car which is taken to the garage after clocking a certain mileage. The introductory part of the implementation of curriculum reviews, the middle stage and the final stage need to be evaluated so that necessary decisions may be made."

Evaluation which is a means to providing is one of the tenets of complexity theory guiding this study. Evaluation allows for positive or negative feedback. Both curriculum review planners, its users and stakeholders require feedback on the implementation of curriculum reviews. Evaluation should be an ongoing programme meant to provide feedback on the implementation of curriculum reviews at any given stage.

Positive feedback will motivate teachers to work while negative feedback will give room for adjustments to ensure the objectives of the programme are achieved. Evaluation is therefore a necessary ingredient which enhances effective implementation of curriculum reviews.

The literature study confirmed the importance of evaluation in the implementation of curriculum reviews. Evaluation examines the impact of implemented curriculum reviews on learner's achievement so that the reviewed curriculum can be revised if necessary and to review teaching

and learning processes in the classroom. Evaluation establishes specific strategies and weaknesses of curriculum reviews and its implementation, critical information for strategic changes and policy decisions and inputs needed for improved learning and teaching (Dundar& Merc, 2017:141).

Evaluation gives feedback on the operation of a programme. Feedback is one of the tenets of complexity theory. In complexity theory, feedback can be either positive or negative. Positive feedback motivates curriculum reviews users to work since it provides the strength of the programme while negative feedback makes them attend to areas of improvement.

5.6 CONCLUSION

This chapter focused on the presentation, analysis and discussion of the findings of the study. The findings amply demonstrate that there is need for collaboration among different stakeholders for the effective implementation of curriculum reviews. The next chapter focuses on the summary, findings, conclusions and recommendations of the study.

CHAPTER 6

SUMMARY OF MAJOR FINDINGS, RECOMMENDATIONS, AREAS OF FURTHER RESEARCH AND CONCLUSIONS

6.1 INTRODUCTION

The previous chapter focused on presentation, analysis, interpretation and discussion of data collected from interviews with school managers as well as document analysis. This chapter gives a rundown of the research methodology focusing on achieving the aim 6.2.1 and the qualitative research (6.2.2) which was undertaken during the study. It proceeds by discussing the findings of the study (6.3.1 & 6.3.2) and the challenges encountered by school managers in the implementation of the curriculum reviews. The proposed model is presented and discussed (6.3) and the areas of further research arising from the study proffered and personal reflections on the study are presented in the penultimate segment (6.6) before areas for further research arising from the study are presented (6.7).The chapter winds up with conclusions of the findings.

The aim of the study was to generate mitigations of the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. This was necessitated by the plethora of challenges encountered by school managers in the implementation of the curriculum reviews. It is critical to find mitigations of the challenges encountered by school managers for successful implementation of the curriculum reviews.

6.2 SUMMARY OF MAJOR FINDINGS

The findings in the study were generated from the research sub-questions. The research sub questions are:

- What challenges do school managers encounter in the implementation of curriculum reviews in Zimbabwe?
- What are the current practices by school managers in overcoming the challenges?
- What measures can school managers adopt in mitigating the challenges encountered in implementing curriculum reviews in Zimbabwe?

In response to the sub questions, three themes emerged from the analysis of data collected from the participants and documents. The themes are challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe, current practices by school managers and measures that could be deployed in mitigating the challenges.

6.3 SUMMARY OF THE RESEARCH METHODOLOGY

6.3.1 Achieving the aim and objectives of the study

The research is rooted in a thorough study of literature on the theoretical framework that is reported in Chapter Two of this presentation. This was done in order to lay down the parameters of conducting research and to spearhead the research design and the methodology. It was also used as the basis on which the envisaged mitigations of the challenges encountered by the school managers in the implementation of the curriculum reviews are founded. An extensive literature study also focused on conceptualisation of curriculum, factors influencing curriculum reviews internationally and management of curriculum reviews which are reported in detail in Chapter Three of this thesis. The literature study presented in Chapter Two and Three provided the basis for drafting the data collection instruments needed for the empirical study. The data collection methods were the semi-structured interview and document analysis. The data gathered using these methods was presented, analysed and interpreted in Chapter Five of this study.

6.3.2 Qualitative Research

This qualitative research was undertaken from a complexity theory framework which drives naturalistic designs in research. This is well reported in sections (see 4.3.1) and (4.3.2). Purposive sampling was used to define the sample for the study which comprised five secondary school managers in GUD (see 4.4.2)

6.4 THEME ONE: CHALLENGES ENCOUNTERED BY SCHOOL MANAGERS INTHE IMPLEMENTATION OF CURRICULUM REVIEWS

The need to mitigate challenges encountered by school managers in the implementation of curriculum reviews is evident from the challenges immanent in both the literature and the

empirical study findings. These challenges are inadequate training of teachers, inadequate resources, high teacher-learner ratio, poor remuneration, teacher resistance, policy regulations, learner resistance and insufficient communication.

6.4.1 Inadequate training of teachers

Both literature study and empirical findings agree that one of the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe is inadequate training of teachers. There is inadequate training of teachers due to inadequate time between the inception and the implementation of curriculum programme. It can be said that despite the efforts by school managers, teachers still remain inadequately trained to implement curriculum reviews in Zimbabwe. This finding confirms the views by Oyedele and Chikwature (2016:65) and Che Omar (2014:6) and (see 5.3.1) who agree that inadequate teacher training leads to ineffective implementation of curriculum reviews.

6.4.2 Inadequate resources

There is a symbiotic relationship between literature study and empirical evidence that school managers encounter the challenge of inadequate resources in the implementation of curriculum reviews in Zimbabwe (see 3.10.8 & 5.3.2). There are inadequate resources stemming inadequate funding of learning material such as textbooks, equipment and infrastructure. Resources constraints have a negative impact on the implementation of curriculum reviews as alluded to by Mupa & Chinooneka (2015:125), Gaotlhobogwe (2014:13) and Nnabuike *et al.* (2016:44) (see 3.10.8 & 5.32).

6.4.3 Teacher learner ratio

The evidence gathered through literature and empirical studies showed that high teacher learner ratio is a challenge in the implementation of curriculum reviews in Zimbabwe (see 3.10.11 &5.3.2). High teacher learner ratio is necessitated by inadequate infrastructure, compulsory education, automatic promotion and inadequate staffing in schools. High teacher-learner ratio hinders effective implementation of curriculum reviews. This is supported by Dube (2016:21) & Koc and Celik (2014:66) who argue that high teacher-learner ratio hinders effective implementation of curriculum reviews.

6.4.4 Poor remuneration

The findings of both literature and empirical studies revealed poor remuneration of teachers. Poor remuneration has a bearing on the implementation of curriculum reviews in Zimbabwe. A disgruntled teacher gives the minimum in the implementation of curriculum reviews (see 5.3.4). The government cannot afford to give teachers decent salaries, and this affects effective implementation of curriculum reviews.

This view is supported by Baba (2015:230) and Sango (2016:20), who believe that if teachers are demotivated, it affects the rigour of implementing curriculum reviews. Poor salaries therefore remain a thorn in the flesh and this has left teachers who are implementers of curriculum reviews demoralised.

6.4.5 Teacher resistance

The evidence from literature study and empirical findings revealed that there is teacher resistance in the implementation of curriculum reviews (see 3.10.10 & 5.3.5). The top down approach used by the government usually cascades information on the implementation of curriculum reviews in linear fashions. The teacher who is the implementer of curriculum reviews receives information as a blueprint and is supposed to implement it as instructed. This top-down approach has a lot of loopholes which leads to teacher resistance. One can only give what one has, and it follows that if the teacher does not own the curriculum reviews, it becomes very difficult for him/her to ensure its effective implementation.

If teachers are not comfortable in the implementation of curriculum reviews, they resort to their old ways of doing things. This is confirmed by Wyk *et al.* (2014:45), Bodegraven (2015:38) and Nnabuike *et al*. (2016:43) who argue that if teachers feel incompetent in the implementation of curriculum reviews, they are most likely to resist the new practices.

6.4.6 Learner resistance

There are mixed feelings from evidence gathered from the empirical study (see 3.10.3 & 5.3.7). Learners were said to have no option other than receiving what is being offered to them. This is so because at the end of the day, learners are forced to sit for external examinations. Others concur with literature study that learners do resist anything that is imposed on them. Learners

may drop a learning area if they fail to comprehend the purpose of its inclusion and implementation.

Learner resistance is as a result of their non-involvement in curriculum review processes, yet they are the cause of such reforms. This is in tandem with the views of Kim (2010:265) and Tolman and Kremling (2016:3) who argue that if learners are not involved in the planning of curriculum reviews, they often resist their implementation, just like it does not work to put the cart before the horses.

6.4.7 Policy regulations

There is a gloomy picture in both literature study and empirical findings with regards to the interference of policy regulations in the implementation of curriculum reviews (see 3.10.4 & 5.3.6). The government crafts policies sometimes which are not favourable to achieve its agenda. Once a policy is put in place, there is no room for negotiation other than total compliance.

The policy of no child shall be sent home for non-payment of fees seem to protect parents who are reluctant to pay fees which assist by providing financial resources to enable effective implementation of curriculum reviews. There seem to be a very thin layer between politics and education policies hence the interference. School managers raised inconveniences brought by policy regulations in the implementation of curriculum reviews during National Secondary Heads (NASH) conferences to no avail. The interference of policy regulations is confirmed and lamented by Stanley (2014:184), Wales *et al*. (2016:11) who believe that most policy decisions in education are made with little or no public attention hence the interference of politics in the implementation of curriculum reviews remains rampant.

6.4.8 Insufficient communication

There is agreement in the literature study and empirical findings with regards to lack of sufficient communication in the implementation of curriculum reviews (see 3.10.5 & 3.10.6 & 5.3.8). Everything falls and rises on communication. Communication that is one way often brings about confusion. If there is lack of understanding surrounding the changes brought about curriculum reviews, it's as a result of insufficient communication. Insufficient communication is caused by approaches that take only one channel of communication such as top-down as opposed to button-

up approach. This approach often leaves out important issues to do with curriculum reviews, hence this creates challenges in the implementation of curriculum reviews. Yilmaz and Kilicoglu (2013:20) say that all stakeholders should be allowed to contribute ideas and advice that help in the effective implementation of curriculum reviews.

6.5 THEME TWO: CURRENT PRACTICES BY SCHOOL MANAGERS

6.5.1 Training of teachers

Empirical findings of the study indicate that school managers work closely with teachers to ensure that teachers are rudimentarily equipped for implementation of curriculum reviews in Zimbabwe. This is in so far as teachers are made to attend workshops facilitated by both Ministry and Curriculum Development Unit in Zimbabwe to inform teachers about the curriculum review expectations. It is important to note that school managers try to close the gap by sponsoring teachers to go for workshops to get the necessary training. Unfortunately, workshops that are meant to equip teachers are always found wanting in terms of adequate time to fully equip teachers.

Schools affiliate to learning areas associations at district, provincial and national levels to enable staff to exchange notes with teachers elsewhere. School managers hire resource persons to close the knowledge gap that may have been created by inadequate training.

6.5.2 Inadequate resource mobilisation

The data collected from the empirical study reveals that school managers collaborate with the parent community in mobilising resources to promote the implementation of curriculum reviews. The Old Learners' Associations also play a critical role in the provision of resources. Schools also make use of internet for research. The schools also make use of available resource persons in the community such as the engagement of headmen and chiefs to explain their roles in the community which is key learning area in a subject like Heritage Studies.

School managers do not fold their hands and watch things going down the drain, they rope in parents to assist with the provision of textbooks where necessary. It can be deduced that in spite of the school managers' efforts to mobilise resources through the parent community and Old

Learner's Associations, inadequate resources remain a challenge in the implementation of curriculum reviews in Zimbabwe.

6.5.3 Teacher-learner ratio

The empirical findings revealed that school managers are making use of double session, that is, learners attend either morning or afternoon sessions so as to decongest high teacher-learner ratios. In some cases, some school managers are very strict with Form One and Lower Sixth enrolments. Only learners who would have done exceptionally well in their exit assessments are enrolled.

The school managers cope with high teacher-learner ratio by encouraging the use of teaching methods such as group work and discussions which enhance interaction among learners. The school also gets learner teachers from neighbouring universities and colleges. The parent's community also engages relief teachers to alleviate the challenge of high teacher learner ratio. Notwithstanding school managers' efforts to cope with large classrooms, high teacher-learner ratio remains prevalent in the implementation of curriculum reviews in Zimbabwe.

6.5.4 Remuneration

There is empirical evidence showing that school managers sympathise with teachers on the poor salaries they are receiving. The salaries are not commensurate with the work done by teachers which gives pressure on teachers. Teachers are getting monetary benefits, depending on the capability of the school. Teachers get supplements to their meagre salaries such as monetary and /or non-monetary benefits to augment their meagre salaries.

6.5.5 Teacher resistance

School managers sponsor teachers' workshops to close the knowledge gap that may have been created by non-involvement of teachers during curriculum reviews. There is evidence from empirical study that there is teacher resistance in the implementation of curriculum reviews. The school managers recognise the efforts of teachers during Speech and Prize Giving days by giving tokens of appreciation in cash or kind.

6.5.6 Policy regulations

The empirical data reveals that policy regulation stifle effective implementation of curriculum reviews. The approved strategies of recovering unpaid fees are cumbersome such that school managers find it difficult recovering fees arrears. School managers cannot withhold results of learners who would have completed their studies and yet they have fees arrears.

School managers take advantage of their forums to talk about challenges caused by some policy regulations in the implementation of curriculum reviews. The greatest challenge is that policy requires compliance and as a result, school managers are compelled to accept the policies that the government would have put in place.

6.5.7 Learner resistance

The empirical study revealed evidence of learner resistance in the implementation of curriculum reviews. To boost learners' interest in the implementation of curriculum reviews, school managers sponsor field trips to make concepts taught easier to understand. However, the cost of field trips makes it difficult for schools to embark on these excursions as required hence learner resistance remains a challenge in the implementation of curriculum reviews in Zimbabwe. To close the gap that is created as a result of learner resistance, school managers also organise seminars for learners. These one-day seminars are not enough to address challenges of learner resistance.

6.5.8 Insufficient communication

There is empirical evidence of insufficient communication in the implementation of curriculum reviews. To bridge the challenge of insufficient communication, school managers make use of end of term circulars to communicate curriculum review issues to parents/guardians. School managers also capitalise on school meetings such as Annual General Meetings (AGMs) to discuss issues surrounding the implementation of curriculum reviews. School managers also take advantage of the internet to create chat groups for parents and teachers so that stakeholders have a forum to discuss the implementation of curriculum reviews. These forums still do not address challenges of insufficient communication in the implementation of curriculum reviews because not all parents participate and do have accessibility.

6.6 THEME THREE: MEASURES THAT COULDBE DEPLOYED TO MITIGATE THE CHALLENGES

6.6.1 Teacher training

It has been highlighted that there is a close relationship between teacher training and the implementation of curriculum reviews in Zimbabwe. This is with regards the in-servicing of teachers as they are specifically responsible for the implementation process. By borrowing from the theoretical framework, literature study and empirical findings, the researcher proposes adequate teacher training as a key component in mitigating the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. This can be enhanced through the following:

- Workshops organised at school level so that teachers can operate from the comfort of their homes.
- The length of workshops must be over one week as opposed to one day workshops so that the facilitators cover adequate ground.
- Workshops need to incorporate evaluation period so that should teachers encounter challenges, they have a forum to air their views and map a way forward.
- In-service training of teachers should not to be a once off activity; it should be ongoing so that progress is monitored and corrective measures taken.
- In-service training of teachers must be conducted before the curriculum review product is disseminated so that teachers may be guided accordingly from the onset.
- Training to meet specific needs of teachers, some teachers may require content while others might need pedagogic skills.
- In-service training of teacher to go along with benefits such as certification and sitting allowances so that teachers are eager and enticed to participate.

6.6.2 Inadequate resources

There is no doubt from the findings that there is correlation between availability of resources and the implementation of curriculum reviews. Availability of resources such as new textbooks suited for the curriculum reviews, syllabi and equipped laboratories are essential in the implementation process. Following the dictates of the theoretical framework, literature study and empirical findings, the researcher calls for adequate resources as crucial in mitigating challenges

encountered by school managers in the implementation of curriculum reviews. This can be spearheaded through the following:

- The implementation of the curriculum reviews can only succeed when resources such as textbooks and equipment are put in place first.
- The MoPSE must craft policies that ensure parents/guardians pay fees to allow resource mobilisation.
- Schools need to use local resources to cut on costs, for instance, there are local people who may be knowledgeable of the requirements of for example Heritage Studies.Such resource persons should be taken on board and their presentations documented to benefit other schools.
- Business community that trades with schools should be asked to take on corporate social responsibility by making donations in cash or kind during school functions.
- There is need for schools to be connected to various stakeholders. Connectedness allows schools to source donations from suppliers of different resources, old learners who may want to fund specific projects in the school and other well-wishers.
- Schools must be connected to agencies that can offer the resources to users and link them up with more remote resource agencies (3.4.3).
- Schools ought to be self-reliant, so that they do not rely solely on the revenue they collect from school fees.
- Schools must engage parents as resource persons.
- The government should allow schools to accept donations from well-wishers.
- Schools have to be allowed to make learners buy a set of textbooks as part of their enrolment requirements since book levies are limited due to the government's jurisdiction over levies charged.

6.6.3 Teacher-learner ratio

Undoubtedly, there is a connection between teacher-learner ratio and the implementation of curriculum reviews. This pertains to class size; the smaller the class size, the more chances are created to manage a group of learners.

The theoretical framework, literature study and empirical findings, all suggest plausible recommendations for a commensurate teacher-learner ratio in mitigating the challenges

encountered by school managers in the implementation of curriculum reviews. This can be fostered through the following:

- There is need for schools to expand their infrastructure to allow manageable numbers of learners.
- The MoPSE must employ more teachers so that curriculum implementers work with reasonable numbers of learners.
- The Mops must encourage Responsible Authorities such as Church, and/or Council to establish more schools and reward the efforts of those that would have taken the initiative.
- The government could ensure companies commit to ploughing back to the community by partnering with schools within their locality.
- Well-established schools could partner with less privileged schools and assist with infrastructural development.
- Small class sizes could be a reality by limiting enrolment of Form One and Lower Sixth learners.
- School managers could make use of double sessions to address the challenges immanent in high teacher-learner ratio in schools.
- Government must prioritise expansion of infrastructure in educational institutions.
- Introduction of virtual classrooms could be a plausible panacea, resources allowing.

6.6.4 Remuneration

It is evident from the findings that there is a link between remuneration and the implementation of curriculum reviews. Remuneration encompasses teachers' working conditions and salaries. By adopting sentiments from the theoretical framework, literature study and empirical findings, the researcher suggests remuneration is critical in mitigating challenges encountered by school managers in the implementation of curriculum reviews. This can be promoted through the following:

- Teacher salaries have to be pegged above poverty datum line so that they are motivated to work.
- Teachers must be paid according to their credentials so that the value of their professional and educational training is appreciated

- The government must consider education allowances for a stipulated number of teachers' children.
- Teachers have to be rewarded for good performance in the implementation of curriculum reviews.
- School managers must verbally acknowledge the good work of teachers.
- Teachers must get non-monetary benefits such as free teas and lunches while at work, free accommodation, free water, electricity and free WIFI bundles.
- Parents through their SDCs should be allowed to supplement the parlous salaries of teachers through monetary incentives.

6.6.5 Teacher resistance

It emerged clearly from the findings that there is a relationship between teacher resistance and the implementation of curriculum reviews. Involvement of teachers makes them own curriculum reviews issues.

Borrowing from the theoretical framework, literature study and empirical findings, the researcher advocates teacher involvement as a significant step-in mitigating challenges encountered by school managers in the implementation of curriculum reviews. The following can be taken on board to achieve this:

- Teachers who are implementers of curriculum reviews should be linked to planners of curriculum reviews, professional associations and other teachers (2. 7. 1).
- Empowerment of teachers in decision-making.
- Encourage professional development of teachers.
- Bottom up strategies to be adopted so that teachers who are the implementers of curriculum reviews make enormous contributions (see 3. 8. 12).
- MoPSE to create a forum for teachers to interface with university lecturers who are consultants of curriculum reviews.
- MoPSE to solicit feedback from teachers with regards the implementation of curriculum reviews.
- Implementation of curriculum reviews must be accompanied with monetary or non-monetary benefits

6.6.6 Policy regulations

There is ample evidence from the findings that there is a link between policy regulations and the implementation of curriculum reviews. Policy regulations either promote or impede effective implementation of curriculum reviews. Policy regulations require compliance hence the need to craft polices that promote effective implementation of curriculum reviews.

If sentiments from the theoretical framework, literature study and empirical study are adapted, the researcher sees policy regulations as integral in mitigating challenges encountered by school managers in the implementation of curriculum reviews. User friendly policies which promote effective implementation of curriculum reviews should be crafted. Cross-pollination of ideas in curriculum reviews should be promoted. Government has to modify all policies that interfere with the smooth implementation of curriculum reviews. The government, public service and teachers should work collaboratively in policy formulation. Schools to be empowered to self-organise themselves whilst working within the framework of the implementation of curriculum reviews.

The researcher has the following suggestions to make to ease the challenges created as a result of some policy regulations:

- There should be a clear distinction between educational policies and politics.
- The government must craft policies that are feasible in spearheading the implementation of curriculum reviews.
- The crafting of policies should involve school managers who take the lead in the implementation of curriculum reviews.
- Schools must be empowered to self-organise themselves whilst working within the framework of the implementation of curriculum reviews.
- Cross pollination of ideas is critical in a curriculum review.
- Government must modify all policies that interfere with the smooth implementation of curriculum reviews.
- The government, public service and teachers must work collaboratively in policy formulation.

6.6.7 Learner resistance

The findings of the study speak loud of the relationship between learner resistance and the implementation of curriculum reviews. Learners' involvement in curriculum reviews is critical since they are the cause for such educational reforms. Learners should be involved from inception to the implementation stage.

Borrowing the views from the theoretical framework, literature study and empirical findings, the researcher endorses learner involvement as critical in mitigating challenges encountered by school managers in the implementation of curriculum reviews:

- Revamp the role of the family in curriculum reviews implementation – the voiceless need to be given a voice.
- There is need for creating a sense of agency in learners about curriculum reviews so that they appreciate the need for the change (see 3. 6. 1. 1).
- Raising awareness amongst learners so that they know of the implementation of curriculum reviews (see 3. 6. 3).
- School mangers must sponsor field trips and seminars to boost the interest of learners (5. 4. 5).
- School managers could use of merit badges and certificates to recognise and reward the efforts of learners who do well in their studies (5. 4. 5).
- Use of ICTs in teaching and learning in order to make learning more interesting.
- The concept of assessment of learners should take a paradigm shift to continuous assessment from summative assessment.
- All learning areas could be assessed so that each is seen as valuable and no lesser than those subjects currently assessed.
- Learners must be involved in curriculum review issues from inception to implementation stage.
- The implementation of curriculum reviews makes education relevant if the exit profiles are made for job creation not job seeking.
- The implementation of curriculum reviews should marry theory and practice so that learners' practice what they learn.

- MoPSE may monitor the implementation of the policy that stipulates the number of learning areas to be studied by a learner and options to choose from in order to curb the problem of learners dropping certain learning areas willy-nilly.
- Inviting role models in various professions could raise awareness on the importance of curriculum reviews and consequently stakeholders would embrace these reforms willingly.
- Learners need the room to choose options on the learning areas that they want to take up not necessarily basing on their performance but on passion.

6.6.8 Adequate communication

There is adequate evidence from findings that there is a symbiosis between insufficient communication and the implementation of curriculum reviews. To enhance sufficient communication implies such critical information flowing from multiple channels other than taking one direction. There is need for sufficient communication in the training of teachers, policy regulations and even in issues to do with teacher salaries and working conditions. Once sufficient communication is effected, in principle, all the other factors would logically flow seamlessly.

By drawing views from the theoretical framework, literature study and empirical findings, the researcher is of the opinion that sufficient communication central in mitigating challenges encountered by school mangers in the implementation of curriculum reviews. This can be achieved through the following:

- The implementation of curriculum reviews must be undertaken when stakeholders have a clear understanding of what it offers.
- Evaluation of the implementation of curriculum reviews must be timeous so that proper decisions can be taken.
- Schools could introduce open days so that concerns on implementation of curriculum reviews may be addressed.
- From the onset learners need to appreciate the importance of the implementation of curriculum reviews by relevant professions so that they become more receptive to the implementation of curriculum reviews of the day.
- Communication could take multiple forms for effective implementation of curriculum reviews (see 2.7.3).

- The use of bottom up strategies is another avenue which curriculum reviewers can employ to ensure successful implementation of curriculum reviews (3. 8. 12).
- To enhance communication in schools, school managers could use end of term circulars, staff meetings, annual general meetings, assemblies and WhatsApp chats groups to communicate important information on the implementation of curriculum reviews to stakeholders (5. 4. 8).
- MoPSE must urgently consider decentralisation of curriculum reviews as schools differ depending on their location and decentralisation will ensure the needs of individual learners are addressed.
- There is need to take feed forward and feedback seriously in the implementation of curriculum reviews so that challenges noted during the implementation process may be addressed head on.

Based on the theoretical framework, literature study and empirical study findings, the researcher proposes the mitigatory model of the implementation of curriculum reviews.

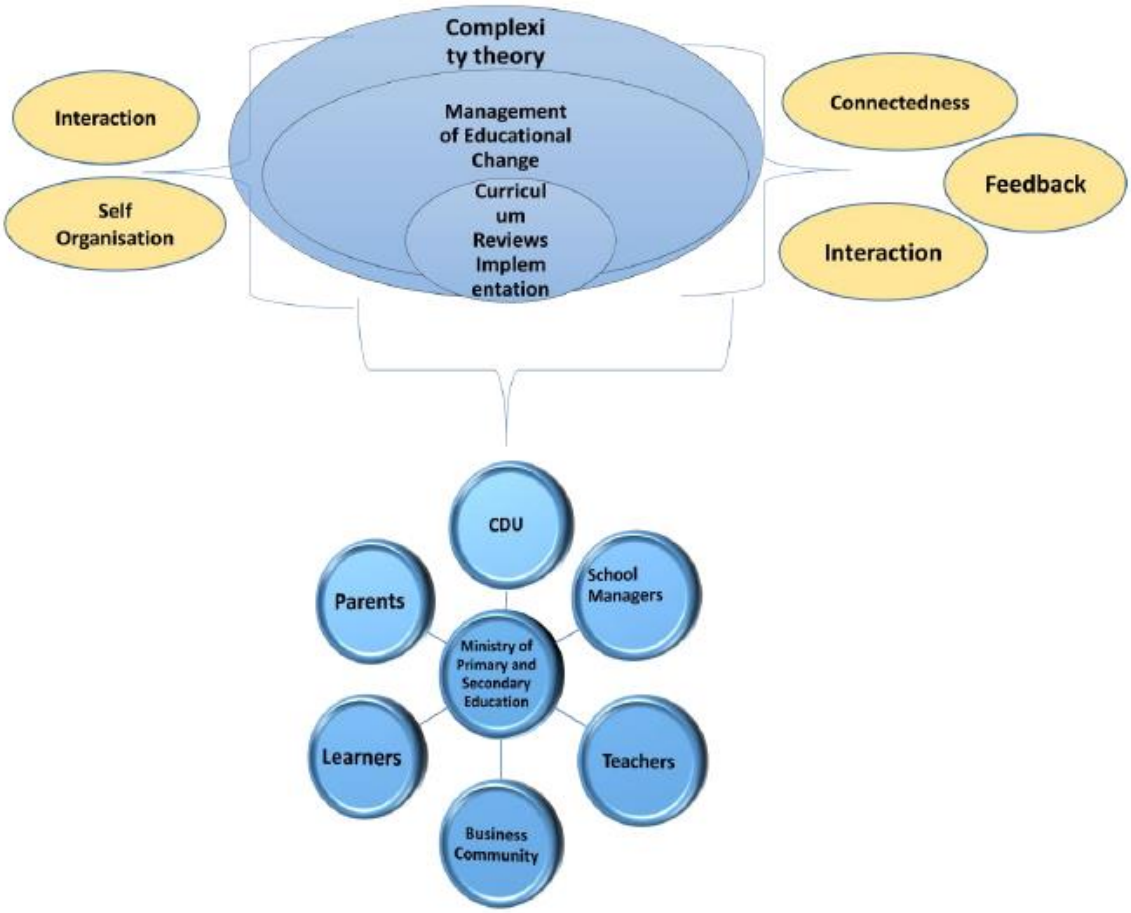

Figure 6.1: The Mitigatory Model of Curriculum Reviews Implementation

6.7 THE MITIGATORY MODEL OF CURRICULUM REVIEWS IMPLEMENTATION

Complexity theory influences management of educational change as well as implementation of curriculum reviews. Implementation of curriculum review and management of educational change are complex processes which can be explained by complexity theory. Implementation of curriculum review is a process in managing educational change.

6.7.1 A framework for successful implementation of curriculum review

The framework is built on the principle that successful implementation of curriculum review should be rooted in the tenets of complexity theory namely communication, connectedness, self-

organisation, value interaction and feedback. It is the responsibility of stakeholders like the Ministry of Primary and Secondary Education, school managers, teachers, parents and learners to ensure successful implementation of the curriculum review. The framework exists inside two environments: the first of these environments on the outermost ring is complexity theory. This is only logical, and it implies that whatever happens in the activities of the organisation structures within the framework must be informed by complexity theory tenets. Complexity theory is then used through dissemination of the implementation of curriculum review up until the institutionalisation stage. These guiding principles assist stakeholders to take participate actively throughout the implementation of curriculum review.

My conviction is that if all stakeholders are connected and there is constant communication and feedback during implementation of curriculum review, success is guaranteed. If schools are given the autonomy to self-organise themselves in a participatory way within an overall framework of the curriculum implementation goals, successful implementation of the curriculum review is assured. No imposition should be tolerated in the implementation process.

The Curriculum Development Unit (CDU) in the scheme of complexity theory then should take its role seriously. It should liaise with global curriculum reviews and learn of current benchmarks in the implementation of curriculum reviews. This entails familiarisation with current best practices in the implementation of curricula reviews. It must, however, always avoid being controlled or dominated by such international influence. The framework suggests that CDU should also liaise with relevant stakeholders to work mutually in ensuring successful implementation of curricula reviews. The logic is to make the implementation of curricula review a collective responsibility.

6.7.2 The roles of different structures in the framework

Curriculum review implementation entails involvement of various stakeholders. Success or failure of the implementation of curriculum review depends on the extent of their involvement. The ensuing discussion highlights the specific roles of various stakeholders.

6.7.2.1 Ministry of Primary and Secondary Education

In drawing up strategies, policies and plans for the implementation of curriculum reviews, the Ministry of Primary and Secondary Education should interact and communicate with curriculum review stakeholders such as school managers, teachers, learners, parents and the Business community so that from the onset they are involved.

The Ministry of Primary and Secondary Education, through connectedness, should be linked to external agencies such as UNICEF so that they source funding for the implementation of curriculum reviews. The sourcing of funds should be done under the jurisdiction of the government. Successful implementation of curriculum reviews requires funding, and this is only possible if the Ministry of Primary and Secondary Education is connected and linked to donor agencies.

Corroboration of the teachers who are the implementers of curriculum review is required if the Ministry of Primary and Secondary Education is to achieve the objectives of curriculum review. This entails close supervision in ensuring that teachers implement curriculum reviews as intended. In the supervision of teachers, the Ministry should utilise all forms for formative and summative evaluation. Negative feedback should be assessed where there is a deviation in the implementation of curriculum reviews while positive feedback could then inform of decent salaries, good working conditions and certification for teachers so that they are motivated to implement curriculum reviews.

The Ministry of Primary and Secondary Education cannot work in isolation of other international educational institutions. Through the principle of connectedness and interaction, there should be room for exchanging of notes so that the Ministry borrows and adapts good practices of curriculum review implementation.

In reviewing the implementation of curriculum reviews with a bias towards Mathematics, Science, Technology, Entrepreneurship and orientation towards Industry, the Ministry of Primary should clearly communicate its vision to all stakeholders so that no one lags behind. Communicating the vision of the implementation of curriculum reviews makes stakeholders own curriculum reviews. The Ministry should also craft rules allowing room for schools to be self-

organised and work independent of the blueprint although operating within the framework of curriculum reviews implementation.

6.7.2.2 Curriculum Development Unit (CDU)

According to Chinyani (2013:129), curriculum review in Zimbabwe is planned at the CDU. Teacher representation is through members of various subject panels and staff associations such as Zimbabwe Teachers Association (ZIMTA). A prototype curriculum is renewed after a situational analysis to assess the national needs and interests has been carried out. After this stage, a blueprint is designed followed by materials development. Syllabuses, teachers' guides and learners' textbooks are designed in tandem with the curriculum review. Subject teams made up of professionally trained personnel in the fields of research, writing and evaluation drawn from universities, teacher education colleges, schools and other institutions are involved in materials development. The activity of materials development also encompasses pilot testing of materials within a 50km radius of Harare, which is the capital city of Zimbabwe. Although this may sound a plausible way of involving teacher participation in curriculum reviews, but the representation is not meaningful. This framework suggests a wider range of the involvement of all stakeholders in the implementation of curriculum reviews. The implementation of curriculum reviews is a complex process which requires the engagement of all stakeholder. No system should dictate the implementation of curriculum reviews hence the need for CDU to connect, interact and communicate with all stakeholders. Implementation of curriculum reviews as an ongoing process should in corporate meaningful workshops time and again so that teachers are equipped to implement curriculum reviews.

6.7.2.3 Head Office

The Head Office in Harare reports directly to the Ministry of Primary and Secondary Education regarding implementation of curriculum review. The Head Office monitors and supervises provinces concerning implementation of curriculum reviews. It mobilises resources to ensure implementation of curriculum reviews. The Head Office is a link between provinces and the Ministry of Primary and Secondary Education, and they ensure constant flow of information. There is need for the Head office connected directly to other stakeholders such as schools, teachers, learners and parents so that communication follows multiple channels. The bureaucratic approach in the ministry should adopt democratic practices were necessary. The principle of

interaction should assist the Head Office to keep abreast with the ground realities other than relying heavily on information that is disseminated through one-way channel which may be decorated to serve other purposes other than spearheading the implementation of curriculum reviews.

6.7.2.4 Provincial Office

The Provincial office is an arm of the Ministry of Primary and Secondary Education. Zimbabwe has 10 provinces. Each province is responsible for the schools that fall within that particular province. Implementation of curricula review is cascaded from Head Office to the Provincial office via District Office until it reaches schools. The Provincial Office reports to the Head Office concerning information about curriculum reviews. The Provincial office through multiple forms of communication should allow decentralisation of information and give room for stakeholder to air their views with regards to curriculum review implementation. School in each province differ in terms of their needs. Decentralisation of the education system could promote the use of the tenets of complexity theory such as corroboration, connectedness, communication feedback and interaction.

6.7.2.5 District Schools Inspectors (DSI)

District Schools Inspectors are the link between schools and the provincial office. They play a supervisory role in schools. It is essential for curriculum review to be supervised as this addresses identified shortcomings and buttress success stories. This motivates curriculum review to ensure successful implementation of curriculum reviews. Their concerns are addressed during the process which in complexity theory is considered as feedback. Formative feedback which requires curriculum review to evaluate challenges they may be encountering as well as progress noted is very critical. This is done through review workshops and feedback questionnaires. District school inspectors should interact and communicate with schools in a way which will empower schools to be self-organised. District schools' inspectors should avoid use of threats but rather capitalise on use of quick returns to make school managers supervisor implementation of curriculum reviews. School clusters should promote communication and interaction among teachers by arranging cluster workshops. The workshops should be ongoing for professional development of teachers. Feedback is crucial curriculum review implementation.

6.7.2.6 School Clusters

School Clusters are groupings of schools in the same neighbourhood that are brought together for a common purpose. The school cluster enables knowledge and skills exchange (Maphosa, Mutekwe, Machingambi, Wadesango &Ndofirepi,2013:293). The school clusters ensure the provision of the necessary platform for teachers to share and exchange notes on the implementation of curriculum review.

6.7.2.7 School Management

For any curriculum review to succeed there must be effective management. The school manager should promote teachers' desire and efficiency in implementing the curriculum review. Good school managers keep learners' learning at the centre of their work no matter what task or activity they undertake. School managers determine how to implement standards and decide on what to emphasize and what to omit in the implementation of curriculum review (Okoth, 2018:320). The school managers ensure successful implementation of curriculum review through the provision of resources such as textbooks and science chemicals and other required equipment. School managers should create a conducive environment for teachers to collaborate and show creativity in the implementation of curriculum reviews. The school-based rules should give room for teachers to work independent of the blueprint although observing the parameters of the implementation of curriculum reviews. School managers should be connected to teachers, learners, parents and other important stakeholders for effective implementation of curriculum reviews. This connectedness assists in resource mobilisation and collaboration which is key in complexity theory.

There is need for the school management to ensure that curriculum review becomes part and parcel of the school culture. This entails making sure that curriculum do not revert to the old system. Once curriculum review becomes a permanent feature in the school system, its sustainability is certain.

6.7.2.8 Teachers

Teachers are the major pillars in the implementation of curriculum reviews. With their knowledge, experience and competencies, teachers are central to any curriculum review

implementation. Policy makers should therefore take teachers' attitudes and perceptions into account to ensure successful implementation of the curriculum review. Teachers work closely with learners who are beneficiaries of curricula reviews. Teachers should be allowed to input during the implementation of curriculum reviews so that they gain ownership in the product and feel more confident that the implementation of curricula reviews was done with their concerns and needs of their learners in mind. Teachers should interact with learners in such a way that will make learners receptive to the implementation of curriculum reviews. Feedback is crucial in the implementation of curriculum reviews especially positive feedback which will make learners more open to the implementation of curriculum reviews.

6.7.2.9 Learners

Learners are also a critical element in curriculum review implementation. While teachers are change agents of the curriculum review implementation, learners hold the key to what is actually taught and adopted from the curricular review implementation. The learner factor influences teachers in their selection of learning experiences, hence the need to consider the diverse characteristics of learners in curriculum review implementation for example, home background and learner ability can determine what is actually achieved in the classroom (Chaudhary, 2015:985). Thus, in the Zimbabwean scenario, there are core learning areas and electives to cater for this diversity. Learner involvement in curriculum review issues makes them own curriculum reviews. Thus, it is paramount for learners to be engaged in curriculum reviews from inception up to its implementation.

6.7.2.10 Community/Parents

Implementation of curriculum reviews does not exist in vacuums, independent of influences by the community. The involvement of communities in the implementation of curriculum reviews need to be boosted through carefully crafted engagement practices. There is need for communities to participate in the implementation of curriculum reviews through pedagogy and classroom support. The building of dialogue with communities, developing partnerships and getting them on board (Burkill & Eaton, 2011:7) in the curriculum review implementation ensures its success.

6.8 ISSUES FOR FURTHER RESEARCH

The design that was adopted for this study which is a case study has its own limitations. These were minimised by the multiple data sources. It is therefore difficult to generalise the findings to a wider population considering the nature of the study. It is against this background that the following issues are suggested for further research:

1. To establish the curriculum review planners' perceptions of ways to mitigate challenges encountered in the implementation of curriculum reviews.
2. Suggesting critical ways stakeholders become fully involved in curriculum reviews issues.
3. Investigating teachers' perceptions on the challenges they encounter in the implementation of curriculum reviews.
4. To establish learners' perceptions about the implementation of curriculum reviews.
5. To establish the impact of supervision in the implementation of curriculum reviews
6. Finding out the impact of parental support in the implementation of curriculum reviews?

6.9 PERSONAL REFLECTION ON THE STUDY

Undertaking this study was a journey littered with challenges. These challenges were overcome by the unwavering support of the supervisor and other well-wishers. Through constant reflection, the researcher understood the role of theoretical framework in the study. It was amazing for the researcher to discover how the principles of complexity theory form the basis of mitigating challenges encountered by school managers in the implementation of curriculum reviews.

6.10 CONCLUSIONS

The conclusions that the researcher presents are based on the literature study and the findings of the empirical study. The conclusions are based on the objectives of the study as evidence of the achievement of the objectives of the study. Conclusions are made with reference to theme two and theme three which constitutes chapter six of the study.

The researcher concludes that school managers encounter a plethora of challenges in the implementation of curriculum reviews in Zimbabwe. These challenges are institutional, personal and policy related. The school managers indicated that some of the challenges are surmountable while others are insurmountable.

The researcher makes the conclusion that school managers deploy mitigatory measures which do not measure up to the magnitude of the challenges they encounter in the implementation of curriculum reviews. In other words, dealing with the challenges is highly elusive for the school managers who participated in the study**.**

This study aimed to suggest ways of mitigating challenges encountered by school managers in the implementation of curriculum reviews by borrowing from the tenets of complexity theory to suggest a mitigatory curriculum reviews implementation model.

It gives some fulfilment that participants were taken into a fraternity of their experiences which enabled them to open up and share their joys and challenges. Participants admitted frankly that they faced challenges in the implementation of curriculum reviews and provided the current practices to ensure effective implementation of curriculum reviews. The measures that they suggested could be implemented to mitigate challenges encountered by school managers. This assured the researcher that undertaking a study whose aim was to suggest mitigations of the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe was worthwhile. This study is the first of its own kind in Zimbabwean education and should pave way for research into the implementation of curriculum reviews.

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ANNEXURES:

ANNEXURE A: INTERVIEW GUIDE FOR SCHOOL MANAGERS

Introduction

1. How old are you?
2. How many years have been as a school manager?
3. What are your qualifications?

Participation in this research is voluntary and participation will be protected. Identity of participants will not be linked to their experiences, views or opinions that they provided.

Main questions

1. How do teachers view the implementation of curriculum reviews?
2. What is the contribution of the parent community in the implementation of curriculum reviews?
3. How do learners view implementation of curriculum reviews?
4. How does the Ministry of Primary and Secondary Education promote the implementation of curriculum reviews?
5. How do policy regulations impact the implementation of curriculum reviews?
6. Which measure can you suggest to be more effective towards the implementation of the curriculum reviews?

Thank you for your time

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ETHICS APPROVAL LETTER OF STUDY

Based on approval by the **Faculty of Education Research Ethics Committee (EduREC)**, this committee hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-SCRE) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Mitigating challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe

Study Leader/Supervisor (Principal Investigator)/Researcher: Dr JP Dhlamini

Student / Team: C Jangara (PhD student

Ethics number:

N	W	U	-	0	1	6	4	2	-	1	9	-	A	2
Institution				Study Number						Year			Status	

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type: Project

Commencement date: 26 November 2020 **Risk:** Low

Expiry date: 26 November 2021

Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- *The study leader/supervisor/principal investigator/researcher must report in the prescribed format to the EduREC:*
  - *annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and*
  - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EduREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *Annually a number of studies may be randomly selected for an external audit.*
- *The date of approval indicates the first date that the study may be started.*
- *In the interest of ethical responsibility, the NWU-SCRC and EduREC reserves the right to:*
  - *request access to any information or data at any time during the course or after completion of the study;*

- *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;*
- *withdraw or postpone approval if:*
  - *any unethical principles or practices of the study are revealed or suspected;*
  - *it becomes apparent that any relevant information was withheld from the EduREC or that information has been false or misrepresented;*
  - *submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or*
  - *new institutional rules, national legislation or international conventions deem it necessary.*

The EduREC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EduREC or the NWU-SCRE for any further enquiries or requests for assistance.

Yours sincerely



Prof JAK Olivier
Chairperson NWU Faculty of Education Research Ethics Committee

Original details: (22351930) C:\Users\22351930\Desktop\ETHICS APPROVAL LETTER OF STUDY.docm
8 November 2018

Current details: (22351930) M:\DSS1\8533\Monitoring and Reporting Cluster\Ethics\Certificates\Templates\Research Ethics Approval Letters\9.1.5.4.1 ES-REC Ethical Approval Letter.docm
5 December 2018

File reference: 9.1.5.4.2

ANNEXURE C: LETTER FROM NORTH-WEST UNIVERSITY FOR RESEARCH PROJECT

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X2046, Mmabatho
South Africa, 2735

Tel: 018 389-2079
Fax: 018 389 5775
Web: http://www.nwu.ac.za

School for Professional Studies in Education
Tel: 018 3892033 (Secretary)
Email: Alize.Mostert@nwu.ac.za

Mr T Ishabela
The Permanent Secretary
Ministry of Primary and Secondary Education
P.O. Box CY 121
Causeway
Harare

12 July 2019

Dear Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

This is to confirm that Sr C Jangara, **Student No: 29124603** is our PhD in Education Management student registered at the North-West University, Mafikeng Campus in South Africa. The title of her thesis is: **Mitigating the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe.**

Permission is hereby kindly requested to enter schools in selected areas in Gweru District to collect data from the Principals. Data collection will be done by way of interviews and documents analysis.

Collection of data will occur outside school contact time so as not to interfere with teaching, learning and assessment processes or office duties. The dates and times of the collection are to be agreed upon by the researcher, school principals and all other participants.

Participants will participate voluntarily in the data collection. The identity of the participants and the school and district will be kept confidential and anonymous. The information collected therefore cannot and will not be used to evaluate the District/school in terms of its performance in comparison with others because the information collected will not be about academic results or teachers' teaching performance at specific schools.

Should you require more information about the project, kindly contact the supervisor for this project: Dr Dhlamini at 018 389 2079.

Herewith permission is kindly requested to perform this research in your district. It would be appreciated if you would kindly grant written permission to this student. Any assistance given to the student to perform the research will be appreciated.

Yours sincerely

Dr JP Dhlamini

School for Professional Studies in Education

North-West University (Mafikeng Campus)

Mmabatho

1

ANNEXURE D: PERMISSION LETTER FROM THE DEPARTMENT OF EDUCATION

ANNEXURE E: LETTER FOR PERMISSION FROM SCHOOL MANAGER TO CONDUCT RESEARCH

Private Bag X6001, Potchefstroom
Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 285-2692
Web:http://www.nwu.ac.za

Faculty of Education

(Research entity details)

Tel: 018 299 4656
Email: Erna.Greyling@nwu.ac.za

Date: 08/02/2019

Tel: 018 299-1111/2222
Web:http://www.nwu.ac.za

Faculty of Education

(Research entity details)

Tel: 018 111 1111
Email: Name.Surname@nwu.ac.za

Date: 8/02/2019

TO: SCHOOL PRINCIPAL

PERMISSION LETTER

I hereby wish to request your permission to obtain entrance into your school to carry out a study. My name is Sr ConsiliaJangara a learner for a PhD in the department of Management of Education with North-West University. My learner number is 29124603. The study involves you as school manager. Before you give permission, please acquaint yourself with the information below.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

MITIGATING THE CHALLENGES ENCOUNTERED BY SCHOOL MANAGERS IN THE IMPLEMENTATION OF CURRICULUM REVIEWS IN ZIMBABWE

PROJECT SUPERVISOR: Dr J.P DLHAMINI
CO-SUPERVISOR:
ADDRESS: North-West University (Mafikeng campus)
CONTACT NUMBER: 073 1580 818/018 3892 079

MEMBER OF PROJECT TEAM: CONSILIA JANGARA
ADDRESS: REGINA MUNDI HIGH SCHOOL, PRIVATE BAG 9022
GWERU, ZIMBABWE
CONTACT NUMBER: 00263784432964

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE
Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Ethics committee of the Faculty of Education Sciences of the North-West University and will be conducted according to the ethical guidelines of this committee. Permission is sought from the Ministry of Primary and Secondary Education

What is this research about?

The study aims to investigate mitigations of the challenges encountered by school managers in the implementation of curriculum reviews in Zimbabwe. It seeks to answer the following questions:

- Which challenges do school managers encounter in the implementation of curriculum reviews in Zimbabwe?
- What are the current practices by school managers in overcoming the challenges?
- What measures could school managers deploy in mitigating the challenges encountered in implementing curriculum reviews in Zimbabwe?

Participants

- The study will involve you, as school manager, basing on your experience in the implementation of curriculum reviews.

What is expected of you?

- As the school manager, it is expected that you provide a permission letter for the researcher to gain access to your school.
- It is also expected that you provide any relevant information that will aid the researcher in carrying out the study effectively

Benefits to the participant

This study will help in mitigating challenges encounters by school managers in the implementation of curriculum reviews in Zimbabwe. The conclusions drawn from the empirical research in this study could help address adequately the research objectives, thereby, providing useful recommendations for the implementation of curriculum reviews.

Risks involved for participants

There is no risk involved for the selected participants in the schools

Confidentiality and protection of identity

Pseudonyms will be used to protect the identity of the participants. This means that all information provided by the participants will not be disclosed to a third party besides the supervisors responsible for this study.

Dissemination of findings

The researcher will provide a copy of the study upon request.

If you have any further questions or enquiries regarding your participation in this research, please contact the researchers for more information.

DECLARATION BY PARTICIPANT:

By signing below, I ……..……. agree to take part in a research study entitled:

MITIGATING THE CHALLENGES ENCOUNTERED BY SCHOOL MANAGERS IN THE IMPLEMENTATION OF CURRICULUM REVIEWS IN ZIMBABWE

I declare that:

- I have read this information and consent form and understand what is expected of me in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressured to take part.

Signed at (place) _____on (date) _____/_____/20____

_____ _____

School Manager Signature **Signature of witness**

ANNEXURE F: CONSENT LETTER FOR SCHOOL MANAGERS



Private Bag X6001, Potchefstroom
South Africa 2520

Tel

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 285 2692
Web:http://www.nwu.ac.za

Faculty of Education

(Research entity details)

Tel: 018 299 4656
Email: Erna.Greyling@nwu.ac.za

Date: 08/02/2019
Web:http://www.nwu.ac.za

Faculty of Education

(Research entity details)

Tel: 018 111 1111
Email: Name.Surname@nwu.ac.za

PRINCIPAL, DEPUTY, HOD AND EDUCATORS
TSWAING DISTRICT

Date: 8/02/2019

PARTICIPANT INFORMATION AND CONSENT FORM

I hereby wish to request your consent to conduct an interview with you as a selected participant for this study. Before you give consent, please acquaint yourself with the information below.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

MITIGATING THE CHALLENGES ENCOUNTERED BY SCHOOL MANAGERS IN THE IMPLEMENTATION OF CURRICULUM REVIEWS IN ZIMBABWE

PROJECT SUPERVISOR: Dr J.P DLHAMINI
CO-SUPERVISOR:
ADDRESS: North-West University (Mafikeng campus)
CONTACT NUMBER: 073 1580 818/018 3892 079

MEMBER OF PROJECT TEAM: CONSILIA JANGARA
ADDRESS: REGINA MUNDI HIGH SCHOOL, PRIVATE BAG 9022
GWERU, ZIMBABWE

CONTACT NUMBER: 00263784432964

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE
Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

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- Which challenges do school managers encounter in the implementation of curriculum reviews in Zimbabwe?
- What are the current practices by school managers in overcoming the challenges?
- What measures could school managers deploy in mitigating the challenges encountered in implementing curriculum reviews in Zimbabwe?

Participants

- The study will involve you, as school manager, basing on your experience in the implementation of curriculum reviews.

What is expected of you?

- It is also expected that you avail yourself for an interview with the researcher
- The interview is expected not to exceed one hour

Benefits to the participant

This study will help in mitigating challenges encounters by school managers in the implementation of curriculum reviews in Zimbabwe. The conclusions drawn from the empirical research in this study could help address adequately the research objectives, thereby, providing useful recommendations for the implementation of curriculum reviews.

Risks involved for participants

There is no risk involved for the selected participants in the schools

Confidentiality and protection of identity

Pseudonyms will be used to protect the identity of the participants. This means that all information provided by the participants will not be disclosed to a third party besides the supervisors responsible for this study.

Dissemination of findings

The researcher will provide a copy of the study upon request.

If you have any further questions or inquiries regarding your participation in this research, please contact the researchers for more information.

DECLARATION BY PARTICIPANT:

By signing below, I ……..……. agree to take part in a research study entitled:

MITIGATING THE CHALLENGES ENCOUNTERED BY SCHOOL MANAGERS IN THE IMPLEMENTATION OF CURRICULUM REVIEWS IN ZIMBABWE

I declare that:

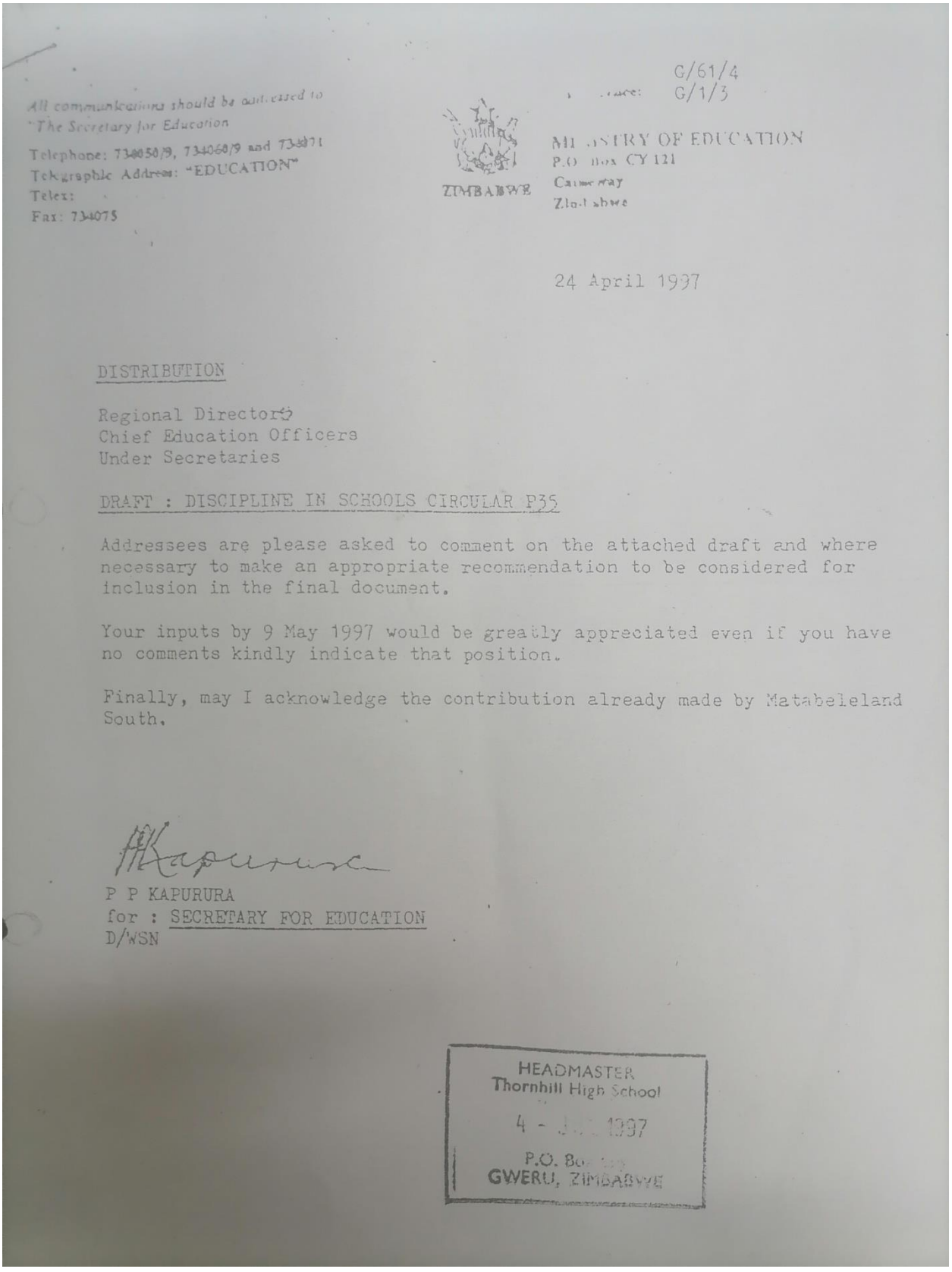
- I have read this information and consent form and understand what is expected of me in the research.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressured to take part.

Signed at (place) _____on (date) _____/_____/20____

_____ _____

Signature of participant **Signature researcher**

ANNEXURE G: CORPORAL PUNISHMENT



All communications should be addressed to
"The Secretary for Education"
Telephone: 734050/9, 734060/9 and 734071
Telegraphic Address: "EDUCATION"
Telex:
Fax: 734075

ZIMBABWE

Reference: G/61/4
G/1/3

MINISTRY OF EDUCATION
P.O. Box CY 121
Causeway
Zimbabwe

24 April 1997

DISTRIBUTION

Regional Directors
Chief Education Officers
Under Secretaries

DRAFT : DISCIPLINE IN SCHOOLS CIRCULAR P35

Addressees are please asked to comment on the attached draft and where necessary to make an appropriate recommendation to be considered for inclusion in the final document.

Your inputs by 9 May 1997 would be greatly appreciated even if you have no comments kindly indicate that position.

Finally, may I acknowledge the contribution already made by Matabeleland South.

P P KAPURURA
for : SECRETARY FOR EDUCATION
D/WSN

HEADMASTER
Thornhill High School
4 - JUN 1997
P.O. Box
GWERU, ZIMBABWE

Ref: G/61/4 & G/1/3

18 March 1997

CIRCULAR P35

DISTRIBUTION

Regional Directors
Heads of all schools
Education Officers and District Education Officers
Responsible Authorities
Executive Secretary, ZIMTA

DISCIPLINE IN SCHOOLS: SUSPENSION, EXCLUSION, EXPULSION AND CORPORAL PUNISHMENT

This circular cancels and replaces Circular P55 dated 3rd May 1993.

1.1 A Head may suspend a pupil who is suspected of misconduct of a serious nature, for a period not exceeding 14 days, while the matter is being investigated. However, the Head should inform the Regional Director where possible, in order to minimise the possibility of ill-considered decisions to suspend pupils on minor misdemeanors. Suspension is not a penalty for an offence but a measure to give time (14 days) to complete the investigation of decide and communicate the penalty .

1.2 A letter of suspension as per Specimen Letter Number 1 attached to this circular should always be sent to the parent/guardian of the suspended pupil and 2 copies of this letter should be sent to the Regional Director.

2. **EXPULSION**

2.1 Expulsion is the removal of pupil a from the school system on account of misconduct of a serious nature. Once expelled, a pupil cannot be re-admitted to the same school or another school without the prior approval of the Secretary for Education.

2.2 A Head shall not expel a pupil without the prior approval of the Regional Director. The Regional Director shall be provided, in writing, with the full circumstances and reasons for the intended expulsion. Include medical reports, Police reports etc. where appropriate. Copies of the intended expulsion letter shall be sent to the Regional Director who, if he is in agreement with the Head's recommendation, will forward a copy together with his/her comments or recommendation whether or not he/she recommends the pupil's re-admission to another school should this be requested by the parents/legal guardian. Re-admission is subject to, among other things, the age of the expelled, nature of crime which led to the expulsion in the first place.

2.3 A pupil awaiting approval of expulsion shall be on suspension for a period not exceeding 14 days pending the Regional Director's approval of his/her expulsion as per Specimen Letter No. 2 attached.

2.4 Thereafter, the Regional Director will inform all other Regions, of the expulsion as prescribed in specimen Letter No. 3 attached if expellee is an examination candidate.

On receipt of the Regional Director's approval, the Head shall inform the parent/ guardian of the expelled pupil in writing, as per specimen Letter No. 4 (attached) of the reasons for expulsion. It is a legal requirement that the Head informs the parent/ legal guardian of his/her right of appeal against the Regional Director's decision within 14 days of receipt of the expulsion notice. The letter of appeal against an expulsion or exclusion, including supporting evidence, shall be in duplicate. The Regional Director will forward the original copy of the appeal and other relevant documents, with any further comments, to the Secretary for Education and will subsequently convey the outcome of the appeal to the parent/guardian and to the Head.

Parents must be discouraged from writing direct to Head Office as this will only slow the process of appeal.

3. EXPULSION OF A GIRL CHILD ON ACCOUNT OF PREGNANCY

For the purpose of this circular, school girl pregnancies are divided into two categories: pregnancy resulting from rape and pregnancy resulting from ill-conceived sexual relationship between a minor (student) and a male person either a student or not a student.

3.1 Pregnancy due to Rape

In most cases, there is documentary evidence provided by legal courts and the Police as well as medical reports. Where it has been proved that pregnancy occurred as a result of rape, the girl should not be expelled. Instead every effort should be made to counsel the victim. Parents should be consulted and with the concurrence of the parents (and the victim) the Head should make arrangements to transfer the girl. The Head of the school at which the girl is a student should do all in his/her power to facilitate the transfer (but not initiate it) if requested by the parents. The request for a transfer must be made in writing.

3.2 Pregnancy due to a Relationship between a student and a male person

Once it has been established (medically) that a female student is pregnant, it is in the interest of the school, the student herself and the child to be borne that the female student be allowed to take leave from school until three months after the child is born. if the young mother (the former student) wishes to come back to school and her parents have indicated their wish for their daughter to come back to school. The Head of the school at which the student was before she went away to give birth to her child should do everything possible to facilitate her re-enrolment in the same grade/form in which she was when she took academic leave to go and deliver her child.

Once again in these circumstances, the student should be counselled so that she can adjust to normal school life and get maximum benefit from the school programmes.

In the case of another student being the father of the infant, the young man should also be sent away from school for the same period.

4. PROCEDURE FOR THE RE-ADMISSION OF A PUPIL WHO HAS BEEN EXPELLED

4.1 An application for re-admission may only be considered in the year following that in which the pupil was expelled.

4.2 in the event that the Regional Director has approved the application, the pupil should enroll in the same form/grade in which he/she was at the time of expulsion but at a different school.

4.3 Regional Office Requirement

4.3.1 The onus is on the parent/guardian of the expelled pupil to identify the school that is willing to enrol the pupil.

4.3.2 The Head of the admitting school (4.3.1 above) must seek the Regional Director's approval, in writing, in order to admit the pupil. All correspondence conducted with the Regional Director, including supporting evidence: parents'/guardian's formal letter of the application to the school (see 4.3.1 above) must be submitted in duplicate.

4.4 Head Office Requirement

The Regional Director will consider the school's letter requesting approval for re-admission of the expelled pupil with all past correspondence regarding the expulsion. Before arriving at a decision as to whether or not to approve the application for re-admission to the formal system, the Regional Director shall take cognisance of the reasons for expulsion, the pupil's academic potential at the time of expulsion, the age of the pupil and the lapse of time between the date of expulsion and the date of application for re-admission. The Regional Director shall decide whether to have the child re-admitted or not except for expulsions due to pregnancies.

5. EXCLUSION

5.1 Exclusion is the removal of a pupil from a particular school for reasons in the best interest of either the child, the parent or the school.

5.2 Before excluding a pupil from school the prior approval of the Regional Director is required in writing. Comprehensive documentation of the pupil's misdemeanor/misconduct/other circumstances must accompany the Head's request for exclusion.

5.3 Once a pupil has been excluded from a school, he may re-apply for admission into any other school without reference to the Regional Director.

9. A register of all corporal punishment shall be kept in the school's log book and it should show:

9.1 Name of pupil given corporal punishment

9.2 Date and nature of offence

9.3 Date and nature of punishment inflicted and

9.4 Name of officer who inflicted corporal punishment

9.5 Name and signature of witness.

10. DISCIPLINE WITHOUT CORPORAL PUNISHMENT

Every head should cultivate a school climate where students will/can develop internal discipline which is not initiated by fear of punishment. The school ethos which triggers self-discipline among pupils supported by positive remedial disciplinary measures where necessary is preferred to situations where students avoid misdemeanors because the alternative could be the infliction of physical pain by the Head. Counselling sessions in consultation with parents, if given a chance, can in fact breed a more responsible and maturing individual.

Corporal punishment is comparable to a fight except, in this case, the pupil is not allowed to fight back. He has to endure the agony, the pain and the deprivation of his human dignity. It is an admission that the school and consequently the Head have failed to "correct" the child.

Heads should note that no other form of physical punishment (other than outlined in Section 7) is acceptable.

ANNEXURE H: EDUCATION ACT

DISTRIBUTED BY VERITAS
E-mail: veritas@mango.zw Website: www.veritaszim.net
VERITAS MAKES EVERY EFFORT TO ENSURE THE PROVISION OF RELIABLE INFORMATION,
BUT CANNOT TAKE LEGAL RESPONSIBILITY FOR INFORMATION SUPPLIED.

This Act was gazetted and came into force on 6th March 2020 - Veritas.



ZIMBABWE

ACT

To amend the Education Act [*Chapter 25:04*]; and to provide for matters connected with or incidental the foregoing.

"WHEREAS section 75 of the Constitution provides as follows:

75 Right to education

(1) Every citizen and permanent resident of Zimbabwe has a right to—

(a) a basic State-funded education, including adult basic education; and

(b) further education, which the State, through reasonable legislative and other measures, must make progressively available and accessible.

(2) Every person has the right to establish and maintain, at their own expense, independent educational institutions of reasonable standards, provided they do not discriminate on any ground prohibited by this Constitution.

(3) A law may provide for the registration of educational institutions referred to in subsection (2) and for the closing of any such institutions that do not meet reasonable standards prescribed for registration.

(4) The State must take reasonable legislative and other measures, within the limits of the resources available to it, to achieve the progressive realisation of the right set out in subsection (1).

Printed by the Government Printer, Harare

NOW, THEREFORE, be it enacted by the Parliament and President of Zimbabwe as follows—".

PART I

PRELIMINARY

1 Short title

This Act may be cited as the Education Amendment Act, 2020.

2 Amendment of section 2 of Cap 25:04

Section 2 ("Interpretation") of the Education Act [*Chapter 25:04*] (hereinafter called the "principal Act") is amended—

(a) by the insertion of the following definitions—

"adult basic education" means any educational training for a person beyond the age of a child of school-going age";

"basic education" means education from early childhood education up to the fourth form and any other category as may be declared as such by the Minister by Notice in the *Gazette* from time to time;

"basic state funded education" means

(a) education from early childhood education up to form four; or

(b) adult education up to form four; or

(c) any other category as may be declared as such by the Minister by notice in the *Gazette* from time to time:

for which pupils shall not be required to pay fees or levies and the State shall provide them with learning and teaching material, facilities, infrastructure and resources subject to the provisions of section 75 of the Constitution;

"formal education" means education conducted in terms of the curriculum and procedures determined by the Secretary in accordance with the provisions of section 63;

"further education" means education from Advanced Level and all studies above that including vocational training, degree and diploma programmes across all subject disciplines;

"Government school" means a school administered and controlled by the national Government, local authority or any tier of Government as established in section 5 of the Constitution;

"non-formal education" means educational instructions received by persons who are not in the formal education system including adult education;

"special needs education" means specially designed instructional arrangements which are designed to meet the unique needs of pupils with disability;

(b) by the repeal of the definition of "Pre-school" and the substitution of the following—

""Early Childhood Development" means the physical, mental and social development of children between the ages of four and five years.".

3 Amendment of section 4 of Cap 25:04

Section 4 ("Children's fundamental right to education in Zimbabwe") is amended—

(a) by the insertion of the following subsection after subsection (1)—

"(1a) The State shall ensure the provision of sanitary ware and other menstrual health facilities to girls in all schools to promote menstrual health.";

(b) subsection (2)(b) of the Principal Act is repealed and substituted with the following—

"(b) be discriminated against by the imposition of onerous terms and conditions in regard to his or her admission to, suspended, excluded or expelled from any school on the grounds of his or her nationality, race, colour, tribe, place of birth, ethnic or social origin, language, class religious belief, political affiliation, opinion, custom, culture, sex, gender, marital status, age, pregnancy, disability or economic or social status, or whether they were born in or out of wedlock.".

4 New section substituted for section 5 of Cap 25:04

Section 5 ("Compulsory education"), of the principal Act is repealed and substituted with the following—

"5 Compulsory education

(1) Every child shall be entitled to compulsory basic state funded education.

(2) Any parent who deprives their child the right to basic state funded education shall be guilty of an offence and liable to a fine not exceeding level 6 or to imprisonment for a period not exceeding two years.".

5 Amendment of section 8 of Cap 25:04

Section 8 ("General duty of local authorities") is amended by the insertion of the following subsection after subsection (1)—

"(2) Every local authority in Zimbabwe shall provide land for school infrastructure.".

6 New section substituted for section 10 of Cap 25:04

Section 10 ("Children's entitlement to enrolment at schools") of the principal Act is repealed and substituted with the following—

"10 Enrolment at schools

(1) In this section "school" means government school.

(2) Every child of school going age shall be entitled to be enrolled at the primary or secondary school, as the case may be, nearest to the place where he or she is ordinarily resident, unless such primary or secondary school is fully enrolled.

(3) Where the primary or secondary school at which a child of school going age has sought enrolment in terms of subsection (2) is unable to enrol the child because the school is fully enrolled, the head of that school shall forthwith issue to the child a certificate in writing certifying that fact:

12 Amendment of section 33 of Cap 25:04

Section 33 ("Meetings and Procedure of Board")(1) of the principal Act is repealed and substituted with following section—

"(1) Subject to this section and to any directions given to it by the Minister, the Board shall meet quarterly, or any other shorter period as the Minister may fix, for the dispatch of its business and adjourn, close and otherwise regulate its meetings and procedures as it thinks fit.".

13 Amendment of section 62 of Cap 25:04

Section 62("Languages to be taught in schools") of the principal Act is repealed and the following is substituted—

"62 Languages to be taught in schools

(1) Every school shall endeavour to—

(a) teach every officially recognised language;

(b) ensure that the language of instruction shall be the language of examination;

(c) ensure that the mother tongue is to be used as a medium of instruction at early childhood education.

(2) School curricula shall as far as possible reflect the culture of the people of every language used or taught in terms of this section.

14 Amendment of section 64 of Cap 25:04

Section 64("Health in schools") of the principal Act is amended by the insertion after paragraph (j) of the following paragraph—

"(k) the appointment of sexual and reproductive health personnel.".

15 Amendment of section 69 of Cap 25:04

Section 69("Regulations") of the principal Act is amended by the insertion after paragraph (n1) of the following paragraphs—

"(n2) the use of emerging technologies in education;

(n3) the manner in which feeding schemes may be conducted at schools;

(n4) manage sexual abuse cases in schools.".

16 New sections inserted after section 68 of Cap 25:04

The Principal Act is amended by the insertion of the following sections after section 68—

"68A Pupil discipline

(1) The responsible authority of every school shall draw up a disciplinary policy for the school in accordance with standards set out in regulations prescribed by the Minister for the purpose.

(2) The regulations and any disciplinary policy shall—

(a) not permit any treatment which—

(i) does not respect the human dignity of a pupil; or

(ii) amounts to physical or psychological torture, or to cruel, inhuman or degrading treatment or punishment;

Provided that—

(i) the head of the school shall not issue such certificate where it is apparent that the enrolment of such child at the next nearest school is impossible due to the inaccessibility of such nearest school;

(ii) the head of the school who has not issued a certificate in terms of paragraph (i) shall enrol the child.

(4) Where a child who has been issued with a certificate in terms of subsection (3) applies for enrolment at the next nearest school and produces such certificate, it shall be *prima facie* evidence of the facts stated therein.".

7 Repeal of section 11 of Cap 25:04

Section 11 of the Principal Act is repealed.

8 Amendment of section 13 of Cap 25:04

Section 13 ("Prescribing of fees at Government schools")(4) of the principal Act is repealed and substituted with the following—

"(4) In prescribing fees in terms of subsection (1) the Minister shall take into consideration the location and status of school.".

9 Amendment of section 15 of Cap 25:04

Section 15 ("Registration of non-Government schools") of the principal Act is amended by the insertion after section (6) of the following section—

"(7) Every school other than a government or local authority school or non-profit making faith-based school shall pay a registration and an annual fee as may be prescribed from time to time by the Minister.

(8) Any person or responsible authority who operates a school other than a government or local authority school or non-profit making faith based school without paying the registration and annual fees as prescribed in subsection (7) shall be guilty of an offence and liable to a fine not exceeding level 6 or to imprisonment for a period not exceeding two years.".

10 Amendment of section 21 of Cap 25:04

Section 21("Fees and levies payable at non-Government schools") of the principal Act is amended by the repeal of subsection (1) and the substitution of the following—

"(1) In this section—

"Commission" means the National Competitiveness Commission established in terms of the National Competitiveness Act [*Chapter 14:36*].".

11 Amendment of section 25 of Cap 25:04

Section 25 ("Adult education") of the principal Act is amended by the insertion after paragraph (b) of the following paragraph—

"(c) every school shall endeavour to offer non formal education including adult education.

(b) prescribe the manner in which any punishment may be administered.

(3) Disciplinary measures must be moderate, reasonable and proportionate in the light of the conduct, age, sex, health and circumstances of the pupil concerned and the best interests of the child shall be paramount.

(4) No pupil may be suspended from school without first being granted a reasonable opportunity, with the support of his or her parents, to make representations with respect to the proposed suspension.

(5) Under no circumstance is a teacher allowed to beat a child.

68B Pupil with disability

(1) Every registered school shall provide infrastructure, subject to availability of resources, suitable for use by pupils with disabilities.

(2) The Secretary shall monitor and enter premises of every registered school for the purposes of ascertaining whether the rights of pupils with disabilities are taken into account during teaching and learning.

(3) For the purposes of fees approval, the Secretary shall require every registered school to submit a plan highlighting how the school shall advance the rights of pupils with disabilities.

68C Non exclusion of pupils from school

(1) No pupil shall be excluded from school for non-payment of school fees or on the basis of pregnancy.".

ANNEXURE I: INCENTIVES

P/A

all communications should be addressed to
"The Secretary for Primary and Secondary Education"
Telephone: 734051/59 and 734071
Telegraphic address: "EDUCATION"
Fax: 794505

ZIMBABWE

REF: A/206/1

Ministry of Primary and Secondary Education
P.O Box CY 121
Causeway
Zimbabwe

22 April, 2014

THE SECRETARY'S CIRCULAR MINUTE NO. 6 OF 2014

DISTRIBUTION

- **Principal Directors**
- **Provincial Education Directors**
- **Head Office Directors**
- **Legal Advisor**
- **Chief Internal Auditors**
- **District Education Officers**
- **Heads of Schools**
- **ZIMTA Executive Secretary**
- **PTUZ Executive Secretary**
- **TUZ Executive Secretary**
- **Association of Church Education Secretaries (ACES)**
- **Association of Trust Schools**

CANCELLATION OF INCENTIVES IN SCHOOLS

This Circular Minute cancels and replaces Secretary's Circular Minute Number 5 of 2009.

1.0 Background

The teachers' incentives were introduced in schools in May 2009 with parental support to augment the teachers' salaries that were pegged at one hundred dollars per month during that time. However the situation has since improved not only for the teachers but for the rest of the Civil Service. There has been a gradual increase in salaries and other related conditions of service. All the teachers are now also earning transport and housing allowances and the teachers in rural areas are paid a rural allowance.

Incentives have been fraught with challenges such as uneven distribution, rural/urban divide, abuse, leading to disharmony and poor service delivery in schools.

2.0 Concerns over Teachers' Incentives

Teachers' incentives are contrary to the achievement of Millennium Development Goal Number 2 as they increase the cost of Education. In addition incentives have caused an outcry from the Ministry's internal and external clients such as the teachers stationed in rural areas, administration staff, internal auditors, parents, School Development Committees, other civil servants, responsible authorities, staff associations and politicians. Consultations were held with Heads Associations, Teachers' Associations, Representatives of School Development Committees, Responsible Authorities and Church Education Secretaries and these agreed that incentives were increasing the cost of education and should therefore be removed. The above stakeholders have contributed to the Ministry's decision to revise its position on teachers' incentives owing to the numerous demerits enumerated below:

i. Teacher incentives are not based on merit.

ii. The teachers' incentives are unevenly distributed. Teachers in rural areas earn less than their urban counterparts due to the low levies paid in their communities.

iii. Owing to this uneven distribution of incentives, some new teacher graduates are shunning rural area deployment preferring to be deployed in urban areas where better incentives are paid.

iv. The schools in rural areas are struggling to retain qualified teachers.

v. There is a yawning gap between urban and rural teachers in terms of financial status.

vi. Teacher Incentives are being abused. According to the Secretary's Circular Minute No. 5 of 2009 only 10% of the collected levies at a school was supposed to be paid to teachers as incentives. However several audit reports have revealed that many schools have been paying more than 10% of levies as incentives.

vii. Some school heads have misappropriated the funds meant for teacher incentives. This has resulted in numerous misconduct charges being raised against such heads, leading in some cases to loss of qualified personnel in our school system.

viii. There has been very little or no development at some schools as the levies are channelled towards teacher incentives.

ix. There have been reports of irregularities in the payment of incentives with some school heads paying less to teachers with whom they have personal differences.

x. The payment of teacher incentives has brought divisions and discontent in the civil service.

xi. Teacher incentives have strained relations between schools and communities.

xii. Children whose parents cannot afford to pay teachers' incentives are being deprived of their right to education.

xiii. The administrative functions of deployment and transfer of teachers are being hampered by the disparities in teacher incentives paid in different schools.

3.0 Policy Position

Incentives have rendered education inaccessible to some children from low income groups and are in this regard, contrary to the provisions of the Constitution of Zimbabwe which guarantees the right to education for all Zimbabweans, and also provides every person the right not to be discriminated against on the basis of their economic or social status.

According to Section 36 of the Education Act, 2006, as amended, levies are for the development of the school. In terms of the Public Service Act, the setting of conditions of service for any member of the Civil Service is the responsibility of the Civil Service Commission as the employer.

In light of the above Secretary's Circular Minute No. 5 of 2009 is in conflict with the provisions of the Constitution and the Public Service Act.

In view of the foregoing, authority to pay incentives is withdrawn forthwith.

4.0 Conclusion

All concerned are urged to take note and comply with the provisions of this Circular Minute with immediate effect.

The interpretation of this Circular Minute rests with the Secretary for Primary and Secondary Education.

C. Chigwamba (Mrs)
SECRETARY FOR PRIMARY AND SECONDARY EDUCATION

c.c Hon. Minister
Hon. Deputy Minister
Secretary for Civil Service Commission

Annexure J: Language Editing Certificate



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Date:12thOctober, 2020

TO WHOM IT MAY CONCERN

CERTIFICATE OF EDITING

I, Muchativugwa Liberty Hove, confirm and certify that I have read and edited the entire thesis,**Mitigating the challenges encountered by school managers in the implementation of curricula reviews in Zimbabwe by Sr Consilia Jangaraorcid.org 0000 – 0003 – 4305 – 0676**, submitted in fulfilment of the requirements for the degree *Doctor of Philosophy in Education Management* at the North-West University.

Sr Consilia Jangara was supervised by **Dr Joyce P. Dhlamini** of the North-West University.

I hold a PhD in English Language and Literature in English and am qualified to edit such a thesis for cohesion and coherence. The views expressed herein, however, remain those of the researcher/s.

Yours sincerely

Professor M.L.Hove (PhD, MA, PGDE, PGCE, BA Honours – English)

