

**CURRICULUM REFORM AND CLASSROOM PRACTICE:
TEACHING GEOGRAPHY IN THE ZIMBABWEAN CURRICULUM
FRAMEWORK 2015 – 2022**

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DECLARATION

I, Manasa Munashe Madondo, declare that the thesis, **Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwean Curriculum Framework 2015– 2022** submitted for the qualification of Doctor of Philosophy in Education (PhD Curriculum Studies) at the University of the Free State is my own independent work.

All the references that I have used have been indicated and acknowledged by means of complete references.

I further declare that this work has not previously been submitted by me at another university or faculty for the purpose of obtaining a qualification.

A handwritten signature in dark ink, appearing to read 'A. Madondo', is centered on the page. The signature is fluid and cursive, with the first letter 'A' being particularly large and stylized.

SIGNED

DATE: 25-07-2020

DEDICATION

I dedicate this thesis to my family who stood by me in this quest for a higher qualification.

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ABSTRACT

Zimbabwe is currently in the throes of implementing whole-curriculum reforms encased in the *Zimbabwe Curriculum Framework for Primary and Secondary Education 2015 to 2022* (ZCF 2015-2022). One of the major aims of this competence-based curriculum drive is the adoption of learner-centred pedagogy. An understanding of how Zimbabwean teachers make sense and enact the learner-centred instructional policy was a lacuna which this study sought to address. The research focuses on how four purposively sampled form 3 and 4 geography teachers from archetypical secondary schools, made sense of and enacted the ZCF 2015-2022 mandated learner-centred pedagogy.

The study adopted a multiple-case study design using techniques of documentary study, observations, interviews, and self-reporting instruments namely; reflective self-journaling and a learner-centred practices gauge to generate qualitative data that yielded the following three main findings, in line with the research's sub-questions. Firstly, though well-articulated policy signals abound in flagship policy documents, teachers lacked adequate understanding of these signals due to ineffective pre-implementation induction. The resultant policy-practice gap reflects discordant understandings between change-agents and local actors.

Secondly, although all four teachers professed support for learner-centred pedagogy, each held individual perceptions on teaching. The commonly espoused support for learner-centred pedagogy was traceable to initial teacher training pro-learner-centred courses. Such espousal also reflected respondent biases of; 'social desirability' and 'social acquiescence' associated with data generated through self-check instruments where respondents want to look good and agree with what they know is the ideal. The four teachers also held individual sense-making understandings of teaching. A third finding was that there was scanty evidence on teachers' voiced support for learner-centred methods in observed lessons. Observed teacher-centred question-and-answer sessions failed to attain effective levels of learner-centredness.

However, some observed lessons approximated the *ZCF 2015-2022* learner-centred policy mandate. This was partly due to factors as; participation in staff development courses, membership to a professional learning community and ability to create *Rich Environments for Active Learning*. The study recommends, an Integrated Eclectic Cognitive Sense-Making Framework, for an inclusive process of curriculum policy implementation with potential for meaningful local actor sense-making in enacting mandated reforms.

Key words: sense-making; competence-based curriculum; learner-centred pedagogy; change-agents; local actors. policy enactment; professional learning community; Rich Environments for Active Learning.

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ACRONYMS

‘A’ Level - Advanced Level

‘O’ Level - Ordinary Level

B.Ed. – Bachelor of Education Degree

C2005 - Curriculum 2005

CA – Continuous Assessment

CDTS – Curriculum Development and Technical Services

CDU - Curriculum Development Unit

Dip.Ed. - Diploma in Education

DSI - District Schools Inspector

HAPROGA -Harare Province Geography Association

HOD - Head of Department

ICTs - Information Communication Technologies

LCD projector – Liquid Crystal Display or overhead projector

LCP – Learner-centred pedagogy

MEd - Master of Education Degree

MoPSE - Ministry of Primary and Secondary Education

PDF - Protected Document Format

RIMS - Rims Information Management Systems

SA – Summative Assessment

SANRAL – South African National Roads Agency Limited

UK - United Kingdom

USA – United States of America

ZCF – Zimbabwe Curriculum Framework

ZIMSEC - Zimbabwe Schools Examinations Council

CHAPTER 1

THE PROBLEM AND ITS SETTING

1.1 Introduction and Background to the Study

The faithful enactment of educational reforms in the spirit intended by education policy makers and curriculum reformers has exercised the minds of curricularists for some time, at least since the 1960s when widespread curriculum planning and development became common practice. This is so because such enactment invariably tends to deviate from the intentions of policy makers or the change agents. History shows that many, Fullan and Pomfret (1977) would say most, curriculum projects have not been enacted in the way curriculum developers had planned. The paradox in such acts of infidelity or non-adherence to intended innovatory proposals is that practitioners, such as classroom teachers, may not even have been aware that they were violating the developers' intentions (Cohen, 1990; Spillane & Zeuli, 1999; Dusenbury, Brannigan, Falco & Hansen, 2003; Altrichter, 2005; Priestley & Drew, 2017).

The central question to which this state of affairs draws attention is: Why is it that teachers, in the light of a new curriculum innovation or instructional policy, show infidelity to the initiative by either continuing with hitherto existent practices or subverting the reform to enact it in ways contrary to original intentions? Policy makers and curriculum reformers normally set out their stipulations on paper without much consideration of teacher or local actor input. The challenge comes at implementation, that is, the translation of the paper policy to practice. Implementation brings to the fore the tensions inherent in the curriculum process as represented by different *dramatis personae*, namely the reformer or change agent on the one hand, and the local actor or implementer of envisaged change on the other. As Rupert (2017) suggests the problem of implementation originates, at least in part, from the separation of curriculum planning, design and development processes usually outside the school and the implementation of the developed curricula in the school. Such a set up fails to adequately consider and involve school level variables such as teachers' understandings of the intended change.

This top-down approach, which by-passes local actors in curriculum development work, has long drawn the discontent of writers in curriculum work. As Stenhouse (1975) argues, to bypass teachers' involvement means to bypass their rationality and their inventiveness. Teachers are not robots who blindly implement any given innovation. Teachers are the implementers who bring a curriculum idea alive in the concrete interaction with learners in the classroom. The exclusion of teachers and other local level players in the initiation and design of educational change makes the realisation of such intended change problematic. Ideally, what works is that "curriculum change processes and discourses must be made transparent so that teachers can have a framework for 'dereification' of a curriculum document into their classroom practices" (Fernandez, Ritchie & Barker, 2008:188).

The top-down approach represents a disjuncture between the envisaged ideal state of affairs and classroom level reality. As a consequence of this far from ideal situation, policy makers, educationists and researchers in Zimbabwe and elsewhere, are constantly trying to find solutions to this problem which has elicited a variety of labels such as the 'theory-practice or reality gap' (Rice & Bulman, 2001; Mullen, Bobbie, Greenlee. & Bruner 2005), 'the implementation problem' (Fullan, 1991; Altrichter, 2005; Magrini, 2015), 'innovation tissue rejection' (Bishop, 1986), 'dissonance in curriculum as plans and as transacted outcomes' (Maravanyika, 2018). It is a complex problem which does not admit of simple answers or solutions.

Literature suggests a possible solution to the problem to be the incorporation of the assumptions and meanings which teachers, as local actors, hold vis-à-vis the demands of externally initiated instructional reform (Blenkin, Edwards & Kelly; 1992; Spillane, Reiser & Reimer, 2002). Such an approach is based on the realisation that the teachers' practices are essentially a translation into classroom pedagogy of their deeply held views on teaching and learning (Tabulawa, 1998; Lefstein, 2008). Successful implementation would thus indicate that teachers share the same assumptions and meaning about teaching and learning as those encased by a new instructional policy. The reverse is true.

Zimbabwe is currently implementing its first ever whole-curriculum reform since independence in 1980. This is through the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* (Dokora, 2016). The *Zimbabwe Curriculum Framework (ZCF) 2015-2022* is the official document outlining the curriculum reform intended to provide a medium-to-long term policy direction for a rapid and sustainable transformation of the education system through to 2022 (Dokora, 2016). The framework is the leading curriculum policy document which functions as the main reference document guiding the development of syllabuses, their revision, design and development and of learning support materials (LSMs) together with matters pertaining to in-service teacher training and support (ZCF, 2016:2). Frequent reference to the ZCF will be made in subsequent sections to further illuminate on its scope and central role in current curriculum reforms in Zimbabwe. .

Research findings from outside Zimbabwe report on the central role played by teachers in successfully or unsuccessfully enacting new instructional reform. There is consensus that enactment process depends on teachers, who may accept and correctly apply, or selectively adopt and adapt, or reject outright the reformers' intentions (Cohen, 2002; Lefstein, 2008; Stanley, Marion & Murphy, 2012; Zindi, 2018). This growing body of research on the role of teachers in the fate of implemented reform in other countries has not been complemented by similar researches in Zimbabwe. Little research exists on how teachers in Zimbabwe have responded or are likely to respond to new instructional reforms such as the current one. The current reform calls for, among other changes, the adoption of a learner-centred pedagogy (LCP) in the Zimbabwean education system. Zimbabwean research on how teachers interpret and make sense of instructional reforms in the classroom is rare. Of the few research studies that have been conducted, one by Musingarabwi and Blignaut (2015) applied a sense-making perspective to understand primary teacher reactions in the enactment of a Human Immune Deficiency Virus and Acquired Immune Deficiency Syndrome (HIV/AIDS) education innovation in Zimbabwe. In a related study, Chimbi and Jita (2019) also report on how history teachers made sense and enacted the ZCF (2015 -2022) reforms in history classrooms at secondary level. The on-going implementation of *ZCF 2015-2022* in Zimbabwe implies that all teachers should make sense and enact learner-centred instructional reforms. Thus, there is a knowledge gap with regards to how Zimbabwean teachers make sense

of external policies they are called upon to implement. In this regard, the present research seeks to contribute to filling this identified local actor sense-making research gap or lacuna by examining how geography teachers understand and enact a learner-centred pedagogy at form 3 and 4 level.

1.2 Justification of the Study

According to Fullan (1983) and Altrichter (2005) there are two broad traditions for tackling 'the implementation problem'. In the present context, this 'implementation problem', to borrow Fullan's (1983) and Altrichter's (2005) phraseology, relates to the fact that so many curricula either fail to be implemented effectively or to stimulate some positive change practices in a way which can be taken as improvement. A prevalent tradition in Zimbabwe is the programmed approach also termed the fidelity approach. This approach seeks to solve the implementation problem by focusing on defects in the curriculum "product" which according to Leithwood & Montgomery (1980: 196) and as confirmed by Sahlberg (2009) include:

- (a) gaps in the existing specification of innovation practices;
- (b) failure to articulate the innovation's implication for teachers' behaviour, and;
- (c) theoretical inadequacies with respect to identified means for achieving the intended outcomes of an innovation.

This programmed or fidelity approach contrasts with the adaptive-evolutionary or collaborative approach which recognises that once an innovation has been devised it would inevitably be modified during the implementation process (Altrichter, 2005). Berman and McLaughlin (1977) describe such a process as mutual adoption in that the reform is adjusted in line with the context of implementation. For Stenhouse (1975), the adaptive-evolutionary approach is an invitation to teachers to reconceptualise and further develop the curriculum innovation in line with the specific circumstances under which they operate. This approach is transformative in allowing for practitioner input, negotiation and use of their experience to modify and thus implement the curriculum innovation or model as dictated by prevailing circumstances. These contrasting approaches on the implementation of externally initiated curriculum and instructional

reforms underscore the need for researching how geography teachers make sense of and handle the learner-centred drive proposed by the *ZCF 2015-2022*.

The history of curriculum change implementation in Zimbabwe has been more aligned to the programmed approach. According to Altrichter (2005) the programmed approach has the strength of availing curricular materials like textbooks, teachers' guides and artefacts for use in the classroom. Immediately after independence curriculum change was dominated by a massive provision of teaching-learning materials such as the Curriculum Development Unit (CDU) modules in the 1980s, the supply of science kits under the Zimbabwe Science (ZIMSCI) Project and the distribution of technical subjects kits meant to support the teaching and learning of practical, vocational and technical subjects (Chivore, 1992). In the area of school geography education, there has been the provision of study booklets or modules, geography weather station kits and atlases, among many other curriculum artefacts and materials (Munowenyu, 1997). This approach, of material production and distribution, is strongly linked to the technicist research, development and diffusion (RD&D) model by Havelock (1973). This model advocates that if the materials or products are good or 'user/teacher proof' and accompanied by wide dissemination, they would be adopted by practitioners in the realm of practice.

The researcher has participated in the development of geography teaching materials such as textbooks, atlas chapters and geography support materials in the form of fieldwork kits. As a geography teacher and geography teacher educator, I have had experience in implementing new innovations at secondary level. From late 2014 to early 2015, I was involved in the compilation of inputs from baseline research and stakeholder consultations that culminated in the writing of the *ZCF 2015-2022* which guides curriculum provision in the Zimbabwean school system in the seven-year period from 2015 to 2022. This experience of the researcher in geography education and curriculum work forms a basis for undertaking the present research. The experience had me speculating on the role geography teachers have played or continue to play in the enactment of the many post-1980 curricular innovations. Most studies of the geography curriculum have reported on the implementation of specific projects like the uptake and

use of geography kits and mainstreaming of education for sustainable development (ESD) (Dirwai, Sibanda & Kakono, 2018). There has been minimal research focusing on teachers' enactment of curriculum-wide instructional policy like the current drive to have learner-centred pedagogy. Such paucity of research on curriculum implementation processes beckoned the need for the present research.

The researcher was motivated to find out how geography teachers make sense of the *ZCF 2015-2022* encased learner-centred approach and how this instructional reform plays out in geography classrooms. This motivation was further reinforced by a reading of literature on the unclear role of teachers in the enactment of external reform in geography (Omoro & Nato 2014; Biddulph, Lambert & Baderstone 2015; Slater, Norman & Lambert 2016). The *ZCF 2015-2022* is an opportunity to research on the role of teachers in the enactment of externally inspired instructional policy.

1.3 Statement of Problem

The *Zimbabwe Curriculum Framework (ZCF) 2015-2022 curriculum and instructional policy* was launched in the Zimbabwe school system in 2017. This policy seeks, in part, to foster change from a predominantly teacher-centred pedagogy to learner-centred instruction in all subjects and at all levels of the Zimbabwean school system. Consequently this study examines how geography teachers understand and implement the requirement to use learner-centred teaching and learning approaches at middle or form 3 and 4 level. The research explores how Ordinary ('O') or form 3 and 4 level geography teachers understand, in the manner of sense making, and enact, the learner-centred instructional policy.

1.4 Research Questions

The following section sets out the closely related elements of; the aim of the research, the main research question and the research sub-questions, all of which form a springboard from which the research objectives can then be outlined.

1.4.1 The main research question

The main question guiding this research is: How do geography teachers understand and enact a learner-centred pedagogy in form 3 and 4 classes as part of implementing the *ZCF 2015-2022*?

1.4.2 Research sub-questions

The following research sub-questions were formulated to operationalise the main research question:

- i) What are the *ZCF 2015-2022* policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?
- ii) How do geography teachers understand the *ZCF 2015-2022* instructional requirement to use learner-centred approaches in the teaching and learning of geography at form 3 and 4 levels?
- iii) How do geography teachers enact learner-centred instructional approaches in geography lessons as part of implementing the *ZCF 2015-2022* at middle secondary level?
- iv) In what ways can teachers' understandings and practices be explained and understood in the context of the need to implement *ZCF 2015-2022* proposed learner-centred teaching and learning approaches?

1.5 Aim of the Research

The research aims to examine geography teachers' understanding and enactment of the learner-centred pedagogical changes required by the *ZCF 2015-2022*.

1.5.1 Research objectives

The research objectives were to:

- i) identify the *ZCF 2015-2022* policy stipulations on the use of a learner-centred approach in teaching and learning geography at form 3 and 4 levels?
- ii) characterise geography teachers' understanding of the *ZCF 2015-2022* instructional requirement to use learner-centred approaches in the teaching and learning of geography.

- iii) describe how geography teachers enact learner-centred instructional approaches in geography lessons as they implement the *ZCF 2015-2022* at middle secondary level.
- iv) explain teachers' understandings and practices in the context of the need to implement learner-centred teaching and learning approaches.

1.6 Theoretical Framework

This study examines how geography teachers enact a learner-centred pedagogy (LCP) at middle secondary level. In Zimbabwe, secondary education is a six year course divided into year levels from form one (level 1) through to form six (level 6) which normally can qualify learners to proceed to university or other tertiary level training (the *Zimbabwe Curriculum Framework* document 2016). The study thus focuses on teaching and learning geography at forms 3 or 4 which levels constitute the middle secondary level.

In focusing on form 3 and 4 classes as part of implementing the *ZCF 2015-2022*, this study mainly draws on two complementary interrelated theoretical perspectives, namely curriculum policy implementation and the sense-making cognitive framework (Spillane et al., 2002; Blignaut, 2008, Musingarabwi & Blignaut, 2015; Musingarabwi, 2016; De los Santos, 2017; Walls, 2017). Additionally, the research draws from other earlier theories and frameworks on curriculum change and implementation such as models by Bennis, Benne and Chin (1969), Schön (1971), and Havelock (1971/73). These classical models are simple frameworks of the process of curriculum change. The various conceptions from the classical curriculum change models, implementation research and the sense-making cognitive framework can coherently be integrated into an eclectic framework that guides this research on teacher enactment of LCP in the teaching and learning of middle level secondary school geography (Spillane *et al.*, 2002; Omoro & Nato, 2014; Slater *et al.*, 2016).

Literature is replete with the observation that most educational innovations are rarely implemented successfully (Berman & McLaughlin, 1976; Fullan & Pomfret, 1977; Bishop, 1986; Dusenbury et al. 2003). In Zimbabwe, recent studies, including those on the *ZCF 2015-2022* reform, have shown this challenge of unsuccessful curriculum

implementation to be true (Maravanyika, 1990; Mavhunga, 2014; Madondo, 2015; Madondo, 2018; Zindi, 2018; Chimbi & Jita, 2019). Berman and McLaughlin (1976: 349) further opine that “the bridge between a promising idea and its impact on students is implementation” which, however, is rarely crossed as “innovations are seldom implemented as planned”. As has been shown earlier in **Section 1.2**, of the two common traditions of curriculum implementation, namely the programmed and the adaptive-evolutionary traditions, the former has featured in implementation reports in Zimbabwe, while the latter is hardly reported on. The compilation of curriculum evaluation projects by Chivore (1992) testifies to this. The adaptive-evolutionary approach, in acknowledging that once an innovation has been devised inevitably undergoes modification during the implementation process (Altrichter, 2005), has potential to offer significant insights on teacher enactment of the *ZCF 2015-2022*. This argument confirms possible mutual adoption of the change initiative to the institutional context, and organisational ethos and practices available in schools (Berman & McLaughlin, 1977)..

This way of viewing policy implementation resonates with the argument advanced by Ridgely and Jerrell (1996) and Dusenbury *et al.* (2003), writing on health education that deviations from, or so called acts of infidelity to, intended implementation represent adjustments necessary and appropriate as innovations adapt to given school and classroom settings. This study thus takes on board the programmed and adaptive-evolutionary implementation strategies as complementary in the enactment of learner-centred pedagogy in geography teaching and learning. This draws strength, not so much from these implementation strategies’ contrasts, but in their potential complementary role in policy implementation.

One of the challenges to successful implementation reported in extant literature is a lack of teacher understanding or cognition of change processes (Cohen, 1990, Spillane *et al.*, 2002; Zindi, 2018). In this respect, a central area of interest for the present study is how teachers experience change in relation to policy makers’ intended change. Researchers in the area of curriculum implementation stress the primacy of understanding change from a teacher’s perspective (Fullan, 1991; Altrichter, 2005; Magrini, 2015; Priestley & Drew, 2017). For Fullan (1991), understanding change from

the teacher's perspective constitutes what is called the 'phenomenology of change'. This research draws from the concept of *phenomenology of change* by focusing on how geography teachers alter their pedagogical assumptions, teaching methods, methods of organising their classes, and how they assess their learners in the light of the learner-centred instructional policy initiative. In focusing on how geography teachers understand the learner-centred approach, this research probes teacher subjective realities that make up the meaning and essence of change. The cognitive sense-making framework by Spillane et al., (2002) presents a template for probing teachers' subjective realities on change.

Consequently the study is mainly rooted on the cognitive sense-making framework by Spillane et al. (2002). Spillane et al. (2002), through a synthesis of theoretical and empirical policy implementation literature, formulated a cognitive framework for understanding local actors' sense-making in the implementation process. As a guide to such understanding, the cognitive framework explains the fate of policy vis-à-vis the local agent which, in the present study, is the *ZCF 2015-2022* inspired learner-centred pedagogy in geography at middle level secondary vis-à-vis the teacher. The cognitive sense-making framework by Spillane et al. (2002) was helpful in structuring the main processes of the present research, namely topic selection, formulation of research questions, choosing the research design, tackling of and approach to the literature review, and devising the data analysis plan. The main idea from the cognitive sense-making framework, which the research draws on, is that teachers' personal understanding and situated sense-making processes are important in determining the successful or unsuccessful enactment of externally inspired instructional change. Cast in the phraseology of the present study, the cognitive framework helps in focusing attention on how teachers' personal understanding and situated sense-making influence the enactment of learner-centred pedagogy (LCP) in geography teaching and learning at form 3 and 4 levels in line with the *ZCF 2015-2022* policy initiative.

The work by Spillane and his colleagues led to a growing number of studies on how implementing agents understand or interpret policy. The works of Blignaut (2008), Musingarabwi & Blignaut (2015), Musingarabwi (2016) and Walls (2017) come to mind.

The present research is in the same genre as these studies. In other words, this research represents, in a way, a replication of studies, *albeit* mostly outside Zimbabwe, that utilise the sense-making perspective to understand the implementation of instructional reform policy.

As alluded to earlier in the introduction and background (**Section 1.1**), a knowledge gap with regards to how teachers make sense of external policies they are called upon to implement was identified through the conceptualisation cannons or lens afforded by Spillane *et al.*'s (2002) cognitive sense-making framework, and other earlier or classical models or frameworks on implementation of curriculum change. Not much is known about teachers' understanding and enactment of instructional reform in general in Zimbabwe. Specifically, we know little about how teachers perceive, experience, and thus enact externally initiated reform. Externally initiated reform has been the norm in Zimbabwe, and is essentially the same *modus operandi* used to articulate the learner-centred pedagogical changes encased in the *ZCF 2015-2022*. The absence of systematic knowledge, as to how teachers understand and enact external instructional reform, is a gap in scholarship which the present research sets out to begin to address by focusing on form 3 and 4 geography teaching and learning.

Consequently, this study is anchored on an eclectic theoretical framework built on an inductive integration or synthesis of change literature, classical curriculum change models, curriculum policy implementation strategies and the local actor's sense-making cognitive framework. This theoretical framework, shown in Figure 1.1, is the heuristic device guiding this study on how geography teachers enact the *ZCF 2015-2022* inspired learner-centred pedagogy at form 3 and 4 levels. More details on its attributes are given in Chapter 2 under **Section 2.7**. Here I provide an illustrative synopsis in Figure 1.1.

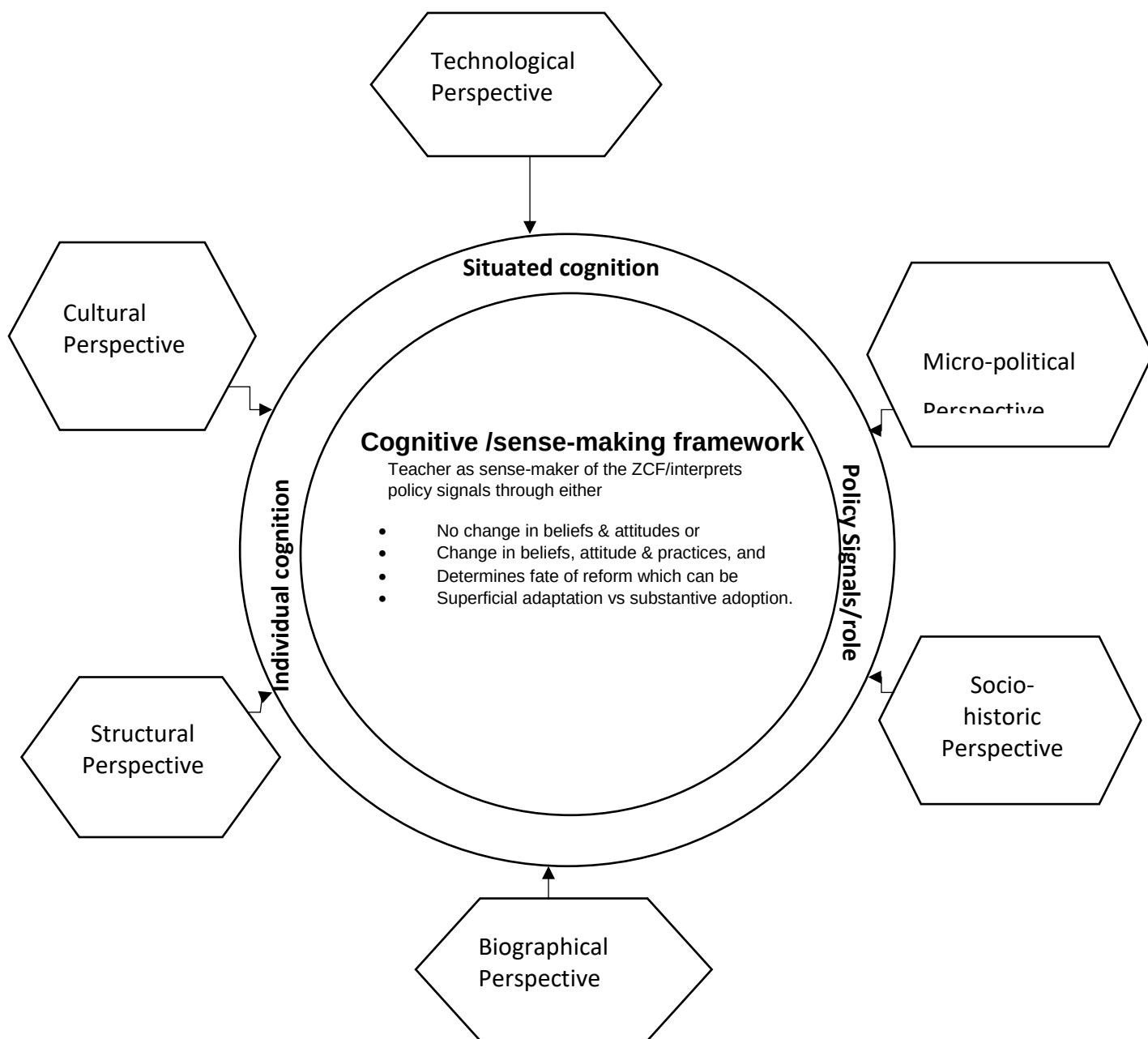


Figure 1.1: Eclectic Framework on Teacher's Pedagogical Decisions on Instructional Reform. (*Eclectic adaption from: Blenkin et al., 1992; Spillane et al.'s; 2002*)

The eclectic framework is based on literature from; curriculum various change models, curriculum implementation perspectives and especially Spillane et al.'s (2002) cognitive framework on the local agent's sense-making in the process of enacting policy reforms.

This body of literature represented by Blenkin *et al.*, (1992), writing from a United Kingdom context, and Spillane *et al.* (2002), working in an American context, among many other authors, suggests that the various perspectives are potential sources of a geography teacher's ideas and actions as he or she implements instructional reform in the classroom. Spillane *et al.* (2002) argue that when local actors such as teachers encounter new and at times 'vague' policies they engage in sense-making by harnessing clues from their situation or environment, social interactions with others and prior experiences or professional capital to understand and interpret such policies. This conception of sense-making builds on Weick's (1995) earlier explanation of sense-making, as a cognitive process that one enters into during times of uncertainty or change.

Figure 1.1 is thus a diagrammatic representation, resulting from an inductive analysis pertinent extant literature, of the possible eclectic convergence of factors that shape teacher actions when implementing reform such as the learner-centred pedagogy encased in the *ZCF 2015-2022* reforms. The relevance of this proposed eclectic cognitive sense-making framework in this study is that it can be a guide or heuristic device through which teacher decisions, actions and even omissions when implementing the learner-centred pedagogy can be described, analysed and explained on the understanding that such decisions, actions etc. derive from a variety of sources.

At classroom level such eclectic perspectives or theories explain how geography teachers make sense in their choices (cognitive theory) of topics and how they teach and experience curriculum implementation. In this way, cognitive sense-making pertains to how meaning is constructed in classrooms in the wake of the need to adopt learner-centred pedagogy. The perspective of sense-making and meaning making in such classrooms is informed by constructivist theory of teaching and learning (Murphy, 1997; Dokora, 2016; Castronova, 2011). Many authors on constructivism (Postman & Weingartner, 1969; Murphy, 1997; Glatthorn, 2000; Kim, 2005). as argued later under literature review in **Section 2.12**, concur with the view that people subscribe to multiple realities derived from different social contexts (Blignaut, 2008; Sharma & Gupta, 2016). Resultantly, the teachers' sense-making in enacting a new curriculum is best understood

from this multiple realities perspective hence the relevance of an eclectic cognitive sense-making framework as rendered in Figure 1.1.

An offshoot of mainstream constructivism is social constructivism which is also closely linked to social psychology, basic cognitive processes, social cognition and situated cognition (Starman, 2013). In postulating that individuals reside in their own personal and subjective worlds where they attach varying meanings to social interactive contexts, social constructivism points to the primacy of diverse teacher sense-making in the light of a supposedly uniform instructional reform such as the *ZCF* reform. This further situates teacher enactment of learner-centred pedagogy in a multiple or eclectic framework.

1.7 Research Design and Methodology

This section outlines the board research approach or model, the data gathering techniques and related aspects of research. Detailed coverage on the research design, methodology, the sampling used, the data gathering instruments, issues of validity and reliability are covered in **Chapter 3** on research methodology and design.

1.7.1 Research approach and data generation techniques

The qualitative research design was adopted as the means to control the research situation and focus. Specifically a multiple case study approach was adopted in this study. A multiple case study entails a detailed examination of specific cases (Yin, 2014; Baškarada, 2014; Gustafsson, 2017). This research strategy was chosen since it enabled access to, and a detailed examination of, four specific cases of geography teachers and how they enacted learner-centred activities and tasks in their classrooms. This resonates with the argument by Cotton (2006: 71) that, “the case-study approach [is] chosen on the basis of its strong grounding in reality, accessibility to teachers, and the ability to generate a rich, detailed account”. In this respect the research focused on a multiple case study of four teachers in order to describe, understand and explain the social phenomena such as decision making and interaction in their classes.

Since case studies are critical to understanding social phenomena, as advised by Yin (2014), Gathercole (2015) and Gay, Mills & Airasian, (2014), among many authors, I

considered, the use of observation, interviewing and document analysis as suitable qualitative data gathering techniques. In addition, the research utilised teacher self-reflective reporting or journaling, use of vignettes and curriculum policy documents analysis for data generation. Through the use of observation, interviewing, document analysis, self-reflective reporting and vignettes, the research gained what Tabulawa (1998) describes as an understanding of the ways geography teachers make sense of their classroom contexts and transactions in the current drive to change from teacher-centred to learner-centred approaches.

The research utilised a phased approach to lesson observation and interviewing for each teacher studied. The first phase was for three audio-taped lesson observations. These initial observations were meant to be the basis for inferences leading to a tentative characterisation of the teacher's conceptions on instruction generally and the learner-centred approach specifically. The use of observation was premised on the advice by Creswell (2012), Yin (2014) and Cotton (2006) that it would have been difficult for teachers to identify and characterise their habitual in-class behaviours through, say, approaches like interviewing alone. The third round of lesson observations was then followed by audio-taped semi-structured interviews.

The interviews were built around the classroom audio-taped lesson observations and on more general questions. In cross-checking the accuracy of the earlier observations and inferences, interviews solicited data on teachers' understanding and views on the learner-centred approach and how to implement it. Grounding part of the interviews in shared classroom episodes, made it possible to discuss the reality of learner-centred teaching and learning to the exclusion of teacher held ideals. It was thus possible for the researcher to utilise a 'theory-in-use' approach rather than an 'espoused theory' approach as advised by Argyris and Schön (1974) Cotton (2006) and Stewart (2015).

The teachers were to write self-reflective accounts of their encounters with the new curriculum. According to Ortlipp (2008), keeping a reflective journal or 'reflective journaling' entails the respondent or the researcher or writer, which in the present study is the classroom teacher participant, keeping a personal journal. Thus the teachers reflected and made his or her "experiences, opinions, thoughts, and feelings visible and

an acknowledged part of the research process through keeping reflective journals.” (2008:695). The individual teacher was asked to respond in writing to identified issues at different periods in the course of the research (Refer to *Appendix 12: Guide on Teacher self-reflective journal writing*). The teachers were also free to comment on aspects they considered germane to the enactment of *ZCF 2015-2022*. Overall, the reflective journal methodology solicited teachers’ own constructions of their personal and professional realities. It was meant to be a sensitive measure of teacher beliefs and practices on the basis of which the research report could be built. Document study targeted the *ZCF 2015-2022* education documents and policies, curriculum documents, the Ministry of Primary and Secondary Education (MoPSE) media releases and relevant school programmes so as to characterise the policy milieu in which the *ZCF 2015-2022* reform was operating. *Appendix 18: Document analysis guide for learner-centred pedagogy for middle level geography teachers* guided the document study process.

These five main techniques of data generation involving; lesson observation, geography teacher and policy custodian interviews, reflective narratives, teacher vignette accounts and documentary study were deemed relevant, appropriate and ‘fit-for-purpose’ techniques to solicit requisite data to address the research questions which the study set out to investigate.

1.7.2 Sampling

In all, the research covers four secondary schools distributed as follows: two in the Harare Metropolitan area and two in a neighbouring rural district. The choice of schools was mainly a result of expert or judgmental sampling in that the four selected schools were representative of some of the major school types in Zimbabwe. Considerations of convenience or accessibility played a minor part in the choice of the four mixed-gender or co-educational secondary schools chosen for study. The two rural schools are an established rural mission boarding school and a post-independence government day secondary school. Two urban schools, one publicly owned and located in low density, high income suburbs while the other is a privately owned school located in a high density, low income suburb. One form 3 and/or 4 teacher and his or her class from each school participated in the study to give a total of four cases. The choice of teacher

participant, where there were more than one form 3 and/or 4 teachers was, like that of school type, mainly through judgmental sampling. The selection of a case or teacher was deliberate to get important information which could not be easily accessed from other choices. The qualitative nature of the research entailed that each individual teacher participant and his or her class be treated as an information rich source or situation.

1.7.3 Validity (trustworthiness) and reliability (dependability) issues

The use of qualitative research aligned methods and instruments, such as observation, interviews, reflective journals and document analysis, enabled the researcher to gain full access to knowledge and subjective information to permit inductive inferences. Such alignment between data gathering instruments and the required data addresses the issues of validity and reliability (Baškarada, 2014; Leedy & Omorod, 2013). This is fully explored in **Section 3.10** in Chapter 3. These methods provided a satisfactory degree of triangulation to accurately gauge geography teachers' actions, feelings, beliefs, understandings, thoughts, and perceptions of their own classroom practice in the light of the need to adopt a learner-centred pedagogy. The instruments, as advised by Leedy and Omorod (2013), would be contextually the most valid and reliable ones to capture the local actors' sense-making as they enacted the new *ZCF 2015-2022* curriculum at middle secondary level in the teaching and learning of geography.

1.7.4 Ethical considerations

Necessary clearance for carrying out the research was provided by the University of the Free State and MoPSE. The quest for study clearance from MoPSE which was premised on use of pseudonyms for participating schools, school heads, teachers and other participants including classrooms, was welcome since MoPSE was/is the change agent interested to see how its reform initiative, the *ZCF 2015-2022*, was/is faring in schools. Information about the study was provided through pre-study visits to research sites, namely district offices, target schools, and the Curriculum Development Unit (CDU) where the researcher met with potential participants, mainly the District Schools Inspectors (DSIs), the school heads and form 3 and 4 geography teacher participants or collaborators. Other potential gatekeepers to accessing the study site and information

were also identified and informed. After explaining the purpose of the research, the nature of participant involvement, inherent risks as underscored mostly by the minimal risk principle, and potential benefits, it was then possible to invite targeted local actors such as teachers to participate in the research on the basis of informed consent and the right to confidentiality and privacy, as advised by Resnick (2010) and Opie (2004).

1.8 Data Analysis Plan

A general inductive approach which, according to Thomas (2003), entails the systematic analysis of qualitative data, as guided by specific objectives, was used in this study. The inductive approach allows the identification of recurrent and dominant themes embedded in the raw data. Data whose information were similar, like having similar approaches to instruction such as engaging learner-centred or teacher-centred practices, would be grouped together to constitute the dominant themes. In this regard, thematic analysis of lesson transcriptions, interviews, observations entries, reflective journal data and other documentary data was performed using both *a priori* and emerging data categories. The data sources were analysed independently of one another. The first port of call was an analysis of each individual teacher's case. Thus, interview, observation and other data were examined for similarities and differences for the case and then across the teachers and their practices. The analysis sought to understand the connections across data sources. Together with emergent themes, *a priori* categories from the sense-making cognitive framework and implementation perspectives were the focus of the thematic analysis (MoPSE-ZCF, 2016; Spillane et al., 2002; Gustafsson, 2017). Such categories were related to issues of implementation of learner-centred pedagogy paying attention to strengths, difficulties during implementation and effects of the adoption of learner-centred pedagogy on learning (Castillo-Montoya, 2016). In particular the content analysis of lesson transactions and observation entries in search of teacher cognition or understanding was guided by similar studies by Ribeiro & Camillo (2012), and Schoenfeld (2013). The data is presented to answer the sub-research questions framing the research. This then made it possible to address the main research question on geography teachers' understanding and enactment of the learner-centred pedagogical changes required by the ZCF 2015-2022.

1.9 Significance of the Study

It is a truism, as attested by extant literature, that faithful enactment of instructional reforms as envisioned by education policy makers and curriculum reformers, remains a pipedream in most classrooms (Fullan & Pomfret, 1977; Cohen, 1990; Priestley & Drew, 2017). The Zimbabwe education system is seized with implementing the *ZCF 2015-2022* reforms chief among which is the adoption of learner-centred pedagogy (LCP). The discourse on the role of teacher sense-making in fostering successful implementation of externally inspired policy reform is in its nascent stages in Zimbabwe. This study contributes to this positive and growing development so as to increase prospects of successful instructional reform uptake. This is especially so in an education system which hitherto has been bedevilled by innovation failure as reported by Mavhunga (2014) and Zindi (2018) among other Zimbabwean scholars.

In seeking to explain how geography teachers understand and enact the learner-centred approach advocated by the *ZCF 2015-2022*, the study traces and explains the trajectory of policy into practice, and the movement from curriculum text into classroom practice. The quest to institutionalise learner-centred pedagogies is a Zimbabwean education-wide drive whose potential can be assessed through the findings of this study. The pursuit for learner-centric methods of curriculum delivery is needful in a global environment where self-initiated and directed learning, active learning, constructivist learning, reflective practice and critical engagement, to mention but a few needed skills and competences, are critical to survival in the 21st century. The research may thus illuminate on how and if teachers can help society's young embark on this road.

The study of teacher cases helps sketch the patterns of effective, potentially effective and ineffective enactment of the learner-centred pedagogy (LCP) instructional reform. Understanding how teachers handle the LCP instructional reform is important to a number of stakeholders in education and training, and development sectors as given by the following points.

- i. To policy-makers, knowledge of how teachers handle instructional reform is the bedrock on which successful implementation of the *ZCF 2015-2022*

reform can be made. The correct or incorrect enactment of learner-centred pedagogy could assist researchers and policymakers make informed decisions about how best to leverage teachers or local actors in the delivery of learning for improved outcomes. In this connection, the study, while recognisant of its case study-related limited generalisability, has the potential to contribute to knowledge and practice of improved curriculum implementation. It needs to be appreciated that there are possibly many pockets of excellence where teachers are implementing the new curriculum with great success than portrayed in this multiple case study. Consequently the proposed Integrated Eclectic Cognitive Sense-making Framework (**Figure 6.1, Section 6.6**) as a possible guide to the process of nuanced teacher sense-making in curriculum policy implementation has to be viewed in this light.

- ii. An understanding of how teachers enact learner-centred teaching and learning of geography opens possibilities of greater teacher involvement in curriculum development. Literature is awash with the fact that teachers tend to teach according to their preferred ways (McAdams, 1991; Tabulawa, 1998; Kennedy, 2004; Sahlberg, 2009). Thus, a key to relevant geography curriculum provision may lie with and be guided by how teachers make sense and enact instructional reform.
- iii. To education generally, the study can be a basis for identifying best LCP teaching and learning practices that produce school graduates with the requisite 21st century skills not only through geography but through other learning areas in the curriculum as well.
- iv. For initial teacher training and in-service development, the study underscores how classroom teachers can potentially interrogate their practice to make it participatory, learner-centred and authentic to learners' needs. A focus on these attributes is the very *raison d'être* of educational provision.

- v. The findings of this study are useful in informing the next seven-year cycle of curriculum and development following the 'expiry' of the *ZCF 2015-2022* cycle. The findings can serve as useful formative evaluation data needed in the next curriculum review process for the next seven-year period after 2022.

Given that the findings of this study are important to various audiences, it will be needful to publicise and distribute abridged versions in journals and other print media. This may help move forward the discourse on the role of local actor cognitive sense-making in all fields of new policy implementation apart from education and training only.

1.10 Delimitations of the Study

The goal of this study was to examine how geography teachers make sense of the current curriculum policy blueprint, the *ZCF 2015-2022* and how instructional policy on learner-centred pedagogy plays out in their geography classrooms. Conceptually, the study is in the area of curriculum implementation research and policy, and is particularly anchored on local actor cognitive sense-making process in policy enactment. In pursuing the goal of the research, four areas delineate the study, and these relate to the nature and context of current curriculum policy in Zimbabwe, the geography teachers' understanding of the learner-centric pedagogical thrust of the *ZCF 2015-2022*, how these teachers enact the *ZCF* policy prescriptions, and how the teachers' enactment can be explained through inductive analysis of the data and extant literature and theories. Methodologically, as informed by extant literature (Yin, 2014; Creswell, 2014), this is a qualitative research utilising a multiple case study approach involving four form 3 and 4 geography teachers in four secondary schools. The research covers four secondary schools, two of which are located in the Harare Metropolitan area while two are in a neighbouring rural district. Data from this multiple case study confined to four teachers teaching in four different school types common in Zimbabwe serves to illuminate how geography teachers at middle secondary level understand and implement the LCP requirement of the *ZCF 2015-2022* reform. Data from the study are inductively analysed to shade light on whether geography classrooms are enacting the learner-centred pedagogy encased in the *ZCF 2015-2022* curriculum blueprint.

However, the results of the data collected from the four cases may broadly be replicated between cases and in other schools where conditions are similar with respect to the fact that:

- i) teachers are enacting the same geography syllabus,
- ii) teachers face broadly similar challenges of inadequate updated curricular resources and pre-implementation induction, and,
- iii) a hurried process of implementation characterised the *ZCF* reform.

1.11 Limitations of the Study

This study has limitations with respect to the timing of the study, the sample size of teacher participants and its one school subject focus. The implementation of the *ZCF 2015-2022* follows what Kusek and Rist (2004) term the ‘enclave approach’ involving a phased introduction of the new curriculum. The inception and phase 1 stage of *ZCF* implementation process in 2017 targeted early childhood education (ECD), infant (grades 1 and 2) for the primary level and forms 1, 3 and 5 for the secondary level. The second implementation phase commenced in 2018 targeting junior level (grades 3 to 7) and forms 2, 4 and 6.

The main challenge is that initial periods of implementation are fraught with inbuilt ‘resistances’ as some aspects of innovation take time to acquire the needed critical mass for sustained uptake and institutionalisation (Kusek & Rist, 2004). As Altrichter (2005:7) argues in the “initial implementation phases teachers relish concreteness and tangibility; and that teaching strategies are (or be) clearly described and material is (to be) well-thought of.” In the face of these challenges, the research took solace in the fact that the initial stages of change implementation are legitimate phases which still have to be researched on, *albeit* with rigour. A longer period of study, in the manner of a longitudinal research, could have been ideal. Whatever findings come out, there is need to recognise the temporary nature of formative constraints and thus findings should be interpreted in that light. There is also a sense in which the findings, while giving a partial picture, contribute to formative evaluation data useful in the next curriculum review for the next seven-year period after 2022.

The study sample of only four teachers may be considered too restricted in a study to do with implementation of a national curriculum policy change. Indeed, school types, like farm or mine schools, private high fee-paying schools and the so-called satellite schools mostly in the post-2000 resettlement areas, were not represented. The same shortcoming can be raised about the focus on one curriculum subject of geography at form 3 and 4 levels. The point about qualitative research is not about representativeness or generalizability of findings but the rigour of data generation, authenticity and richness of data collected, hence high validity of purposively selected cases. It is on this attribute of qualitative research that the present study is predicated.

1.12 Clarification of Related Concepts

The section below gives the meaning and interpretation of the main terms and concepts used in the context of this research. The **change agent** is the initiator or innovator and in most cases developer of curriculum innovation or reform. Associated terms or office holders include **curriculum developer, policy maker and curriculum reformer**. In the context of the present research MoPSE through its divisions and branches like the CDU, is the change agent though there may have been other drivers like external development partners.

The **curriculum process** is taken as all activities, from review, initiation, design, development, implementation to institutionalisation that ultimately lead up to and end with the decision to take up a definite innovation proposal. Part of the curriculum process are the education reforms. The **education reform process** is a plan or movement which attempts to bring about a systematic change in educational theory or practice across a community or society (Ball, 1994, Education Reform, n.d. <https://www.edglossary.org/multicultural-education/> accessed 20/10/19).

In this study **learner-centred approach or learner-centred pedagogy (LCP)** is the main instructional change which the ZCF reform seeks to usher in and is the focus of the research. **LCP** is the use of different teaching and learning methods or techniques that place emphasis on the person who is doing the learning (Weimer, 2002). In contrast to the traditional teacher dominated approach, there is a shift in the role of the teacher

or instructor from provider or dispenser of information to facilitator of student learning. LCP or learner-centred teaching focuses on what learners do thereby contrasting with the conventional teacher-centred learning that focuses on what teachers do in the teaching-learning context. LCP is grounded in constructivist learning theories where the learner is the central entity to be actively engaged in seeking and constructing meaning. LCP uses different types of teaching learning methods such as games and simulations, group work, flipped classrooms, fieldwork etc. **Local actor:** implementer or enactor of curriculum or instructional policy change the lowest level for example the teacher in the classroom. Closely linked to the local actor is the **phenomenology of change** which pertains to an understanding change from the local actor or teacher's perspective. It entails probing teacher subjective realities that make up the meaning and essence of change to him or her in order to understand the assumptions, meanings and actions which teachers, as local actors, hold and take in the light of the demands for instructional reform. A related aspect of the **phenomenology of change** or the reform process is the reform or change implementation process.

Implementation encompasses the specified set of actions designed to put into practice an activity or programme of known dimensions. It is the process of enacting change where it is intended for such as at school or classroom level. The study of implementation processes is concerned "with the nature and extent of actual change, as well as the factors and processes that influence how and what changes are achieved" (Fullan, 1994: 2839). Closely associated with implementation are concepts of **Implementer of change, implementation problem** and **fidelity of implementation**. **The Implementer of change:** the local actor such as a teacher, school head, education official, farmer for agricultural innovation, enactor of change, etc.

Invariably reform is not always implemented according to plan. This gives rise to the **implementation problem** that is the fact that many curricula either fail to be implemented successfully or to stimulate some positive change practices in a way which can be taken as improvement (Altrichter, 2005). Such a situation results in concern with faithfulness or fidelity of the implementer to the intended reform brings about the concept of **fidelity of implementation**. This refers to aspects of adherence and compliance to

designer intentions and involves aspects such as quality of programme delivery, participant responsiveness, and programme diversity. Policy or reform **enactment** is thus the process of implementing a given official regulation or position, for example adoption a learner-centred pedagogy as required by the ZCF reform

As in the medical field where fidelity of implementation refers to a patient's adherence to prescribed treatment or dosage, similarly, in education reform, this is the degree of adherence by local actors or implementers to the reformer's or curriculum designer's original intentions. Thus, the definitions and measures of fidelity vary according to field of speciality and from study to study. When there is divergence between the intended plan and actual implementation, an **implementation gap** exists.

The provisions of the **new curriculum** are contained in the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* blueprint. The new curriculum encompasses, among other things, changes in the philosophy undergirding education, subjects or learning areas or content, pedagogical approaches, learning support materials (LSM) needed, assessment approaches and organisation of schooling into 3 levels. These are: **infant level** (childhood education (ECD-A and ECD-B to grade 2), **junior level** (grades 3 to 7) and **secondary level** (form 1 to 6). The new curriculum in Zimbabwe has also been referred to as the **competence-based curriculum** or the **updated curriculum** and has the ZCF 2015-2022 as its main flagship document.

Zimbabwe Curriculum Framework (ZCF) 2015-2022 is the official document outlining the curriculum reform undertaking meant to provide a medium-to-long term policy direction for a rapid and sustainable transformation of the education system through to 2022 (Dokora, 2016). The framework or blueprint functions as the “main reference document informing the development of syllabuses, revision of syllabuses, development and use of learning resources and the creation of guidelines for in-service teacher training and support” (ZCF, 2016:2).

In Zimbabwe the **development of school curricula and syllabi** is the duty of the Curriculum Development Unit (CDU). The CDU assembles a **National subject panel**. This is a grouping of subject experts drawn from universities, teachers' colleges, polytechnics among other stakeholders, working together with classroom teachers,

supported by Education Officers, to research, design and develop a subject or learning area syllabus for a specific level namely; infant, junior and secondary, using a spiral approach to attain proper mastery and accumulation of competences by all learners. In the Zimbabwean context the school curriculum is centrally planned. Thus curriculum provision is **planned curriculum change**. **Planned curriculum change** is "... a deliberate and collaborative process involving a change agent and a client system which are brought together to solve a problem or, more generally, to plan and attain an improved state of functioning and applying valid knowledge" (Bennis, et al. 1969, in Hoyle, 1976:296). In this study **planned curriculum change** is used interchangeably with the term **instructional policy reform, curriculum reform and curriculum change**.

The **Zimbabwe school organisation or structure** spans the years from Infant to the end of Secondary School level. The curriculum is organised as follows; **Infant school** (Early Childhood Development [ECD] to Grade 2; namely 4 to 7 years), **Junior school** (Grades 3 to 7; namely 8 to 12 years) and **Secondary level** (forms 1 to 6; namely 13 to 18 years). The Infant and Junior school modules constitute the **Primary Education Cycle** while the **Secondary School Cycle** runs from forms 1 to 6.

With regards to school types a number of categories are found in Zimbabwe. One category is the **private high fee-paying schools (PHPS)** which are trust schools or private schools catering mostly for the well to do. These can be of a rural or urban location whereas **rural council schools (RCS)** are basically rural day secondary schools formerly called 'upper tops'. They were set up as part of the post-1980 massive expansion in education. They were mostly established with the assistance of local communities who offered their labour. They are run by rural district councils. They are generally poorly staffed and equipped. **Satellite schools (SS)**: mostly rural schools established in former large-scale farming areas in the aftermath of the post-2000 fast track land resettlement programme. They are generally poorly resourced. Rural council schools and farm schools are generally taken as poor schools while the other types of schools are taken as well to do schools, *albeit* variously so. **Mine schools (MS)** are, like mission and farm schools, private schools which are, however, owned and run by mining

companies. **Mission/Church schools (CS)** are owned and run by churches. They are mostly long-established boarding schools which are found mainly in rural areas. Thus main **Zimbabwean school types** which were targeted those in this research are from the **Middle level secondary**. These are the form 3 and 4 classes which constitute the middle two-year block of the six-year Zimbabwean secondary school system. The form 3 and 4 two-year block is sandwiched between the first lower form 1 and 2 two-year block and the last upper form 5 and 6 two-year block. Accordingly in this study reference is made to middle level secondary teachers and middle level secondary classes. The form 3 and 4 secondary school level culminates in learners sitting for a summative public examination.

1.13 Organisation of the Thesis

This thesis report consists of six chapters in the following format:

Chapter 1: The problem and its setting

This preliminary chapter is the launch-pad to the study. It sketches introductory aspects such as the background and justification of the research, the statement of the problem, the aim of the study, giving related aspects of research sub-problems and objectives of the research and methodology, among others. The chapter then focuses on the theoretical framework namely; the eclectic cognitive sense-making framework, undergirding the study. Then it turns to issues of the significance, delimitation and limitation of the study. It gives the meaning of important terms and concepts as used in the context of the study. This section on organisation of the thesis giving an outline of the study report chapters is the last section summarising and folding the chapter.

Chapter 2: Literature review

This chapter highlights the importance of related literature. The chapter reviews curriculum change theory and models, interpretive perspectives and the sense-making cognitive framework to curriculum change and its implementation. The chapter describes features of an eclectic cognitive sense-making theoretical framework undergirding the thesis and shows how the framework derives from available literature. Apart from providing a critical synopsis of the historical context of curriculum change in

Zimbabwe, the chapter critiques the *Zimbabwe Curriculum Framework 2015-2022* processes, highlighting its proposals for learner-centred pedagogy.

Chapter 3: Research Methodology

This chapter details aspects of the qualitative research design, and in particular the multiple case study approach adopted for the present research. In addition, aspects of research methods such as observation, interviews, reflective journaling and document analysis are outlined and justified. Related issues such as sampling, instrument validity and reliability are also highlighted. Furthermore, the chapter explains the data generation process highlighting ethical considerations that accompanied the process. The chapter discusses data presentation and its analysis through inductive processes.

Chapter 4: Presentation of data and Analysis

This chapter is on the presentation and analysis of data for each teacher participant in line with the sub-questions that framed the research. Presentation of data from self-reporting instruments, lesson observations, interview transcriptions and documents yielded patterns in the data for each teacher case. Generally the chapter reports on each participant teachers' understanding and enactment of the learner-centred pedagogy. It then became possible to recognise and interpret patterns in the data for each teacher case.

Chapter 5: Cross-case analysis: Uniformity at Large but Diversity in Detail

The chapter provides a cross-case analysis of research findings in line with the four sub-questions that framed the study. It analyses flagship policy documents on the *ZCF 2015-2022* reform with regards to their stipulations vis-à-vis the learner-centred pedagogy drive. It also highlights commonalities as well as differences among the teacher participants.

Chapter 6: Summary of Findings, Conclusions and Recommendations

Chapter 6 provides a summary of the study's main findings, related conclusions and main recommendations emanating from the research. The chapter also proposes a

posteriori integrated eclectic cognitive sense-making framework on the basis of research recommendations as basis guiding both policy makers' and local actors' enactment of effective instructional policy. The chapter also discusses the significance and limitations of the research. The chapter then concludes the study.

1.14 Summary of the Chapter

This chapter introduces the research reported in this thesis by giving a context of the study with respect to the background and rationale for the research. It further foregrounds the study by highlighting the research problem and the accompanying qualitative research methodology which are all anchored on an eclectic cognitive sense-making theoretical framework that guides all aspects of the research. The chapter explains both the conceptual and physical delimitation of the research and further shows the limitations that place boundaries on the interpretation of findings. The contextual definitions and explanations of important terms and concepts used in the study and meant to enhance their correct use and interpretation, together with the section on chapter organisation fold this introductory chapter. The next chapter, focusing on reviewing related literature, consolidates on the background to the study by giving the study's contextual, research-based and theoretical underpinning as portrayed by extant literature.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 Introduction

This research investigates how new curriculum reforms are enacted by teachers in geography classrooms at middle secondary level in Zimbabwe. Specifically, the study explores geography teachers' understanding and implementation of learner-centred pedagogy at form 3 and 4 levels as encased in the curriculum blueprint, the *Zimbabwe Curriculum Framework (ZCF) 2015–2022* and the related new geography syllabus. According to MoPSE Permanent Secretary's Circular Number 2 of 2017 (2017: 3), the new curriculum was to be implemented in phases in 2017 commencing with the infant level (Early Childhood Development [ECD] levels A and B and grades 1 and 2) and forms 1, 3 and 5 (lower 6th) at secondary level. Subsequently other levels at primary would be covered by 2021 and by 2018 at secondary level (ZCF, 2016). The research utilises a multi-case study approach of four form 3 and 4 geography teachers from four secondary schools which represent some of the main school types found in Zimbabwe. The research aims to unpack how geography teachers understand and enact the new geography curriculum's learner-centred drive thereby making it possible to assess the congruency between the teachers' implementation efforts and the demands of the new curriculum reforms (Jansen & Reddy, 1994; Maravanyika, 2018).

A theoretical understanding of how geography teachers may conceptualise and implement the required pedagogical changes enshrined in the *ZCF 2015-2022* document was shaped by perspectives and findings in available literature on externally initiated curriculum reform or change and its enactment in the teaching and learning milieu. An explanation on the idea of externally initiated reform is needful in the context of the ZCF learner-centred pedagogy vis-à-vis the majority of classroom teachers. Although some pre-curriculum development stakeholder consultation accompanied the Zimbabwe Curriculum Framework development process and its resultant syllabuses, to all intentions and purposes, for the majority of classroom teachers, the ZCF-inspired

changes represent externally initiated change in that they did not participate in the process but had to implement it prescribed as a curriculum or syllabus.

Specifically, the review of related literature was based on studies and other published works on; curriculum and instructional change, instructional policy implementation, teacher pedagogical content knowledge, how classroom teachers make decisions, and practices in the process of enacting change. The literature consulted included academic journal articles, on-line journals, research reports and publications, books and government documents on the new curriculum, among many other sources. Informed by these diverse sources of related literature for its conceptualisation, including possible areas of focus, research methodology and interpretative insights, this chapter provides an analytical review of literature in the following areas:

- i) the concepts of planned curriculum change, its implementation and the teacher.
- ii) the place of curriculum change models, strategies, perspectives and frameworks in explaining the fate change in schools.
- iii) a proposed eclectic theoretical framework on local actor or implementer cognitive sense-making undergirding the study.
- iv) the historical context to curriculum changes in Zimbabwe including the Curriculum Framework 2015-2022 process.
- v) the learner-centred approach and the teaching and learning of geography.

A conclusion, highlighting the importance of the reviewed literature and indicating knowledge gaps in how teachers enact curriculum and instructional reforms in the Zimbabwean context, folds the chapter. In addition, the relevance of extant literature in shaping the focus and possible research approaches is highlighted.

2.2 Planned Curriculum Change and Associated Terms

Curriculum change and the related genre of terms such as curriculum reform, innovation, renewal, and development, are central concepts of the present study. It is therefore appropriate to analyse the conceptualisations and meanings of change and its related concepts as they have been used in educational change-related literature. This also provides a fuller context for these terms which the study frequently refers to.

Furthermore, this section reviews the many strands of understanding that have characterised the process of curriculum change. Such understanding forms the background against which recent curriculum changes and their implementation like those encased in the *ZCF 2015–2022* can be understood. A defence for the rather heavy reliance on some dated literature maybe handy. The appropriateness of ideas lies not in their age or contemporariness, though the latter is essential. What is important is the efficacy of ideas to enhance understanding and to underscore the essence of the historical perspective in creating continuing conservation between the past, present and future.

The conception of curriculum change as a deliberate and collaborative process involving a change agent and a client system which are brought together to solve a problem, or more generally, to plan and attain an improved state of functioning and application of valid knowledge originally proffered by Bennis et al. (1969) has been upheld in subsequent renderings of the concept (Mkpa, & Izuagba 2009; Ndawi & Maravanyika 2011; Obilo & Sangoleye 2015). Planned curriculum change is intended alteration which has been forethought, designed and implemented. It is something that is not haphazard or accidental in its conceptualisation and consummation. In contrast to planned change, there is what Obanya (1987, 2004) characterises as a ‘panic approach’, which is a reactive response akin to emergency interventions such as firefighting or management by crisis. Another attribute of planned change is that it is a multidimensional process characterised by material use, use of new instructional approaches and change of beliefs and underlying theories (Fullan 1993, 2006). Historically, the beginnings of planned change in education are partly traceable to the aftermath of the 1957 launch of the first ever space craft, Sputnik 1, into space by the then Union of Soviet Socialist Republics (USSR) (Ravitch, 1990; Sarason, 1990; Goodson, 2001; Gurria, 2011). The response to this was the adoption of appropriate educational changes meant to ensure that the Western world, in particular the United States of America (USA), did not lag behind in technological and space race developments. A rather persistent result of this has been the advancement of technology subjects on the totem pole of valued curriculum knowledge from their pre-1957 low status. There is general agreement that

curriculum change should be planned since the problems of providing relevant education in today's societies cannot be solved through educated guesses or intuition (Bishop, 1986; Sahlberg, 2009; Wiles & Bondi 2014). Planned change is essential to avoid wasting resources and disappointment with failure that go with unplanned innovations. This should not be taken to mean that planned curriculum initiatives do not fail but planning minimises the chances and degree of failure.

In a related description of curriculum change, Prescott and Hoyle (1976:27) describe change as "... a generic term embracing a whole family of concepts". The other terms in this family of concepts include; curriculum innovation, curriculum reform, curriculum development and curriculum renewal. This broad conception of change gives a value neutral term with no qualitative judgement of whether it is a good or bad process. The other terms like curriculum innovation, reform, renewal, and development have more precise meanings as will be shown in the ensuing paragraphs. Further, descriptions focusing on; curriculum change as development, curriculum renewal, curriculum reform and transformational curriculum change serve to clarify and distinguish between these terms, thereby contextualising them within this study on learner-centred pedagogy (LCP) enactment in the *ZCF* reform.

The term *curriculum innovation* describes a radical break with former practice (Sahlberg, 2009). Such a break had earlier been characterised by Nisbet (1975:1) as any "new policy, syllabus, method or organisation change which is intended to improve teaching and learning". In other words, innovation entails change in any of the following dimensions of the curriculum: the basis of teaching, that is, its goals and values, the related thinking and teaching activities or methods, the content taught, the materials used, the language of instruction and the forms of learner assessment adopted.

In contrast to the radical break with past practices associated with innovation, *curriculum change as a development process* entails a gradual drive towards better and improved ways of doing things compared to the prevailing situation. Most curriculum initiatives have an inherent thrust to improve and attain better levels of performance. However, it

should be remembered that any change is not necessarily development as such change may be for the worse.

Just like the process of curriculum development, *curriculum renewal*, according to Stenhouse (1975), involves bringing materials up to date and keeping abreast of advances in subject and teaching methods. The process of curriculum renewal is ever occurring if one considers activities like textbook revisions and acquiring state of the art machinery or laboratory equipment. In reality, much of what has been claimed to be innovation is curriculum renewal. In this connection some of the changes like the need for revised curriculum materials which are envisaged in the *ZCF 2015-2022* involve a process of curriculum renewal.

Unlike curriculum renewal, *curriculum reform* is a macro level process involving reshaping or restructuring, reconfiguring or reorganising, to alter by transforming and improvement (Schubert, n.d.) Educational reform may involve reorganisation of the education system which does not relate directly to curriculum. However, in the system-wide intervention such as the *ZCF 2015-2022*, curriculum change inevitably necessitates reorganisation of the education system in order to enhance chances of success for the envisaged changes or reforms.

Linked but opposed to the idea of renewal is process of *change as a transformative process*. A post-modern view of change is a transformative and not accumulative or incremental or just renewal (Doll, 1989; Slattery, 2006; Monreal, 2016). This view emphasises notions of individuality and freedom which do not accept established ways of doing things without question. This freedom to challenge conventional knowledge and wisdom leads to a questioning stance essential for continued change and development in all fields including curriculum. The advent of the *ZCF* learner-centred pedagogy has change as a transformative process in that it calls for the adoption of a constructivist approach which may entails that teachers revise their view on teacher dominated pedagogy in preference for guided learner-centred meaning making in the classroom (Kim, 2005; Sharma & Gupta, 2016).

2.3 Curriculum Change: The Unchanging Reality in Education

Two perspectives on the permanence of curriculum offerings can be discerned from the history of educational provision. Historically, and traceable from Greek philosophers like Plato, is the classical view of education as the transmission of some fixed, static and transcendent content. This view precludes much change in the education process. However, with societal changes such those brought in by industrialisation, globalisation and the related information and knowledge economy, the throes in which most societies are today, curriculum change is inevitable. As Blenkin *et al.* (1992:21) put it, “(w)e have ceased to see knowledge in any sphere as fixed, static, God given, eternal, unchallengeable, unproblematic, and have begun to recognise it as fluid, tentative, hypothetical, necessarily open to constant questioning and highly problematic.” This view implies a dynamic view of knowledge which entails, *ipso facto*, a dynamic view of curriculum (Chisholm & Leyendecker 2008; Sahlberg, 2009). Embracing change within the curriculum augurs well for utilitarian education. Though some may question the appropriateness of developing a curriculum to match technological changes as too instrumental and utilitarian, it needs not be solely utilitarian as curriculum should address moral, aesthetic, social, economic, environmental and political ramifications which technological changes entail (Gurria, 2011). Providing planned educational encounters for the young in a society characterised by rapid technological change is the means to prepare them for the future. Thus, curriculum change should ideally reflect changes that occur in society wherein a curriculum is situated and meant to serve. Education as a professional field is constantly changing as reflected in values, new curricula and new technologies which define how we teach and learn (Morgan, 2005; Danaher, 2013; Makewa, & Baraka 2015).

According to Blenkin *et al.* (1992:2), “[c]hange must be recognised as an ever-present phenomenon of life and that any aspect of human existence, and especially of social living (such as education), which is planned without reference to that fact is fated to be ineffectual and to inhibit rather than to promote the quality of that existence”. Consequently, rapid and sweeping changes are being imposed on school curricula with respect to goals, content, teaching methods, assessment procedures and indeed the way curriculum is conceived. Planned curriculum change can thus be viewed as the

means by which education responds to cultural, technological and other changes in society. Curriculum change, notwithstanding the worthwhile role of the curriculum, should neither be regarded as the panacea to educational problems nor should it be viewed as progress to some form of nirvana and educational perfection, an unattainable metaphysical ultimate state (Blenkin *et al.*, 1992:19).

An aspect which is highlighted in literature is the complexity of the change process (Fullan, 2000). The unrelenting drive for change in education has brought in its wake a plethora of phrases to try and characterise the process. Thus, authorities admit curriculum change is a complex, contested, uneven, time-consuming, and energy-sapping process that is far easier to pronounce than to implement (Danaher, 2013; McAdams, 1991; Fullan, 2000). A language of contrasting binaries captures the complexity of the curriculum change process. For example, Lieberman and Grolnick (1998) refer to change as aiming at ushering order to a 'messy' situation whose hallmarks are dilemmas, ambivalences and paradoxes. Change initiators try to "fuse steps that do not coalesce well", "provide both support and pressure"; "expect results and yet be patient"; "balance top-down and bottom up strategies"; and be of "a clear vision and still be open-minded" (Stoffels, 2004:15, Fullan, 1991).

Although constant curriculum change is needful and at times overdue, readings of both Zimbabwean and non-Zimbabwean literature on curriculum change show that there is no smooth and automatic uptake of intended change in the classroom. This even so for the current ZCF reforms in Zimbabwe (Chinyenba & Muzawazi 2018; Zindi, 2018). There is a sense in which curriculum change is consummated if only it is accepted as change by the classroom teacher and the learners. For example, one way in which teachers, in common with other human beings, may react to the requirement for change is by maintaining a 'stable state' through 'dynamic conservatism' (Schon, 1971, Cohen, 1990). Dynamic conservatism is the tendency by individuals targeted for change or having to implement change to strive to preserve the *status quo*. Possible reactions to change include ignoring, opposing, resisting, subverting, selectively adopting, misinterpreting, distorting and redirecting the reform (Lefstein, 2008). In the light of this rather enigmatic nature of change proffered in prevailing literature, it is with the nature

of acceptance or otherwise of the current ZCF-related changes with regards to middle secondary geography curriculum that this research finds a niche.

2.4 Implementation: The Achilles' heel of the Curriculum Enterprise

The curriculum, be it as encased in an instructional policy document, a syllabus or teaching-learning materials, is designed and developed either at local (school/cluster/district) level or by an external specialist agency (such as a government ministry or a body so mandated) for use in the education system. The latter situation of externally initiated changes is common in most developing countries with Zimbabwe being no exception even for the current ZCF 2015-2022. In the case of externally initiated and developed curriculum or instructional changes, implementation is taken as a separate activity of "... taking the curriculum to the people" (Obanya, 1987:68). Implementation, in this context, is the process of having schools and the classroom teacher, who are the local actors, practice or enact what is stipulated in the curriculum or instructional policy reform such as adoption of learner-centred pedagogy stipulated by the ZCF 2015-2022. A review of literature on curriculum policy implementation generally seeks to address the question of how faithful local level actors are to the intentions of the prescribed curriculum (Lefstein, 2008; Danaher, 2013; Penuel, Rachel, Phillips, Christopher. & Harris, 2014; Nwachukwu, Kpolovie & Makewa 2015). The reviewed literature in this section suggests that the 'fidelity' of local actors is problematic and hence, *ipso facto*, implementation of externally initiated reforms in schools and classrooms becomes the weakest link in the curriculum practice chain.

Many centrally inspired curriculum initiatives have floundered on the door of the classroom, the so called 'black-box' of the curriculum (Pondiscio, 2015). Many curriculum texts and theoretical explanations, especially before the 1990s, were wont to explain curriculum failure or the problem of implementation as a technical problem to do with; inappropriate design, faulty dissemination and diffusion strategies, scarce resources to back up implementation and logistical hiccups in materials distribution (Patterson & Czajkowski, 1979; Havelock, 1973; <https://implementation-of-empowerment-with-havelocks-change-theory-nursing-essay.php> downloaded 20/10/20) . There was the mistaken view of 'user proof' or 'teacher proof' curriculum

materials which, it was claimed, were guaranteed to work for the most feeble and incompetent receiver or local actor (Havelock, 1973:162). In most cases teachers were implementing changes which were not of their making or choosing, a situation that still prevails in many countries to date. Blenkin *et al.* (1992) have aptly described such an approach as the result of curriculum changes,

... being brought about by those who lack (...) depth of understanding and who see the process of educational change in simple terms as something which can be readily achieved by acts of legislation, by the application of sanctions and by the distribution of myriad forms of documentation. (1992: vii).

In this context, the 'implementation problem' is essentially "a problem of meaning", since teachers basically should be clear as to the what, and how of external instructional reforms (Fullan, 1991:127). Many studies on curriculum implementation invariably seek to answer the simple but the perceptive and perennial question posed by McLaughlin (1998:70) thus: "[w]hy are classroom practices so hard to change?" Most studies testify to the fact that large-scale or national curriculum reform seeking to change the instructional beliefs, methodologies, classroom organisation and assessment approaches of teachers cannot be easily achieved (Bishop, 1986; Sarason, 1990; Fullan, 2000; Stoffels, 2004; Chitate, 2005). There is consensus among writers in curriculum and instructional reform implementation that external initiatives fail because they do not take on board the meanings and beliefs about teaching that teachers and schools, individually and as a collective, hold (Blenkin *et al.*, 1992). In the words of Hameed (2013:26), "(c)urriculum change can be implemented in a true sense only if teachers are prepared for change because they are the people who implement the curriculum in the class room." Similarly authorities like Bascia and Hargreaves (2000), and Nevenglosky, Cale, Aguilar & Panesar (2019) contend that change initiatives often fail since they are built on an inadequate understanding of the depth, scope and complexity of how teachers behave in the thick of teaching and learning. Teachers are pivotal to the realisation or failure of instructional initiatives.

The failed uptake of many educational reforms has brought in its wake varied portrayals of such failure. The studies reviewed here, such that by Lefstein (2008), show that

external reforms meet with failure in many cases in the form of superficial adoption, selective uptake, facade change, intentional subversion as when teachers lower their expectations of learners, unintentional subversion and what Bishop (1987) calls outright tissue rejection as teachers continue to use the traditional curriculum. In contrast, research by McLaughlin and Talbert (1993) reveals that some teachers manage to sustain the required change. This was especially so where the school milieu nurtured a professional and collegiate learning community among the teachers. Consequently, it may be surmised that the response to change in the implementation process, while reportedly largely negative and disappointing, is far from being a linear response of acceptance or rejection. Along the continuum of unmitigated or stubborn rejection to enthusiastic and at times slavish adherence, lies a myriad of responses which each individual situation manifests.

A synthesis of implementation literature highlights the root of implementation failure as the failure to understand change processes. The external initiators of change in lacking understanding of the depth, scope and complexity of what teachers do, fail to design user-friendly reforms. Policy makers often erroneously believe that the mere issuance of edicts and administrative circulars would lead to successful uptake of the proposed change by schools and teachers. This is a point reported by Stoffels (2004) and Madondo (2015) in their assessment of instructional policy implementation in Namibia and Zimbabwe, respectively. Schools, teachers and learners may fail to implement new change proposals as they lack requisite understanding and skills to faithfully enact the prescribed changes. A reading of implementation literature indicates the need for shared understanding between the change-agent on the one hand, and the local implementer of change on the other (Cohen, 1990; Tabulawa, 1998; Spillane et al., 2002; Stoffels, 2004). In contemporary parlance, the policy maker and local actors, between and amongst themselves, should sing from the same hymn book page for reform implementation to succeed. Ideally, as argued earlier, what works is that “curriculum change processes and discourses must be made transparent so that teachers can have a framework for ‘dereification’ of a curriculum document into their classroom practices.” (Fernandez, et al., 2008:188). This body of literature, in underscoring the perspective of

implementation as a cognitive process, is the bedrock on which this study on how geography teachers are enacting learner-centred pedagogies has been conceptualised.

2.5 Teachers and the Enactment of Instructional Reforms

A central issue which this research investigates is how practising teachers take on board externally initiated instructional changes. There is need to understand teachers' motivations, perspectives and practices with respect to instructional reform. The influence that teacher-held assumptions and beliefs have on the uptake of new instructional policy has received considerable attention in writings on curriculum implementation (Cohen, 1990; Fuller & Snyder, 1990; Tabulawa, 1998; Spillane et al., 2002; Stoffels, 2004; Seikkula-Leino, 2011). Consequently, this section firstly reviews selected studies of curriculum change initiatives in non-African settings and then extends such a review to the Southern African and Zimbabwean contexts. An assessment of the influence of teacher-held assumptions and beliefs on implementation of instructional reform will be contextualised to specific curricular subjects including where possible to secondary school geography. A central motif of the review is to illustrate that curriculum or instructional changes stand a chance at successful implementation if they are compatible with teachers' prevailing pedagogical views and practices. The reverse is true.

In his seminal work on a teacher's implementation of a new mathematics instructional policy in the State of California in the USA, Cohen (1990) established that 'progressive conservatism' on the part of the teacher, Mrs Oublier, led her to enthusiastically but wrongly enact the new policy. Cohen (1990) concluded that teachers found it hard to do away with established routines, beliefs and practices which had become part of their teaching or professional repertoire. It became clear that teachers do not totally abandon their long-acquired ways but end up using old approaches or understandings to teach an innovation. Spillane and Zeuli (1999), in a separate study of 25 teachers, found a similar situation to that of Mrs Oublier.

Lefstein (2008), in a research on classroom implementation of the English National Literacy Strategy (NLS) showed that, apart from teachers being the hindrance to faithful

enactment of instructional reforms, both teacher and pupils could be joint *albeit* unknowing culprits in defeating the curricula designers' intentions. Lefstein notes the primacy of established interactional genres as determining factors in the fate of instructional reforms where the teacher and the class recontextualised the NLS curricular materials' contents into the established classroom interactional patterns. The re-contextualisation entailed shifts from the prescribed changes that demanded increased learner autonomy, freedom to engage in open discussion and independent work to habitual, highly structured interactional episodes characterised by reduced learner autonomy with regards to the type of class work and, the quantity and lengths of learner individual work. In this way, these habituated interactional episodes were inimical to the new instructional reforms. Of interest to the present study and taking its cue from the aforesaid studies by Cohen (1990) and Lefstein (2008), is the need to scrutinise geography classroom interactions in the wake of the new curriculum that stresses, among other changes, learner-centred transactions. What learners do as well as what teachers do, as encapsulated in classroom interactions, is the backdrop against which any prescribed uptake or subversion of the new reforms can be gauged.

In Africa, cases of teachers failing to enact envisaged change are galore. Paulo (2014), reports on pre-service teachers in Tanzania who persisted with the use of conventional teacher-centred pedagogy contrary to the learner-centred methods mandated by instructional reforms. Countries in southern Africa, including Zimbabwe, have also been the site of studies focusing on the influence of teacher-held perceptions on the implementation of instructional reforms. According to Moodley (2013), the common refrain in studies from outside Africa that teachers struggle to implement progressive curriculum reforms was echoed in studies from countries such as Botswana, South Africa and Zimbabwe. A research by Fuller and Snyder (1990), on life in Botswana classrooms, highlighted the persistence of teacher dominated approaches despite availability of resources and teacher in-service training on learner-centred approaches. These writers went on to report that there was a marked difference between what teachers claimed was effective teaching and what they transacted in their classrooms. This underscores the need to examine the teachers' personal understanding and situated sense-making processes, a line of enquiry that has received considerable

attention from Spillane et al., (2002). Their work is the focus of **Section 2.9** in this review. Other studies in Southern Africa have also reported the persistence of teacher-centred pedagogy even in the wake of effort to introduce learner-centred pedagogy.

In Botswana, a research by Tabulawa (1998) on geography teachers' classroom practices in the wake of an instructional policy advocating change from teacher dominated to learner-centric pedagogical approaches, found teacher practices to be incongruent to policy stipulations. Teacher practices were influenced by non-technically aligned teachers' perceptions concerning; what knowledge is and how it ought to be communicated, the nature of learners, and the purpose of education. Such teacher-held assumptions were incompatible with the basic attributes of learner-centred teaching and learning approaches. Thus, teachers mostly used a deductive methodology to teach geography which, however, was tangential to the inductive style advocated in the learner-centric approach. This was so despite considerable efforts to support teachers in their work and as well as the ready availability of needed resources.

The central finding of studies by Fuller and Snyder (1990) and Tabulawa (1998) draws attention to a theory of instructional change which overlooks teachers' viewpoints on subject content, and the issue of how such knowledge should be transmitted might not lead to anticipated reforms and learning. Informed through this body of studies, to the effect that successful enactment of instructional policy is predicated on teachers' values and perspectives that are compatible with the central values of the intended curriculum or instructional reform, the present study sought to establish the compatibility of the new learner-centred pedagogy in the geography curriculum vis-à-vis teacher-held viewpoints on; the nature of knowledge and how it ought to be transmitted, the nature of learners and the aim of education and schooling.

The post-independence curriculum reconstruction in Namibia focused on, among other things, the need for learner-centred pedagogy. However, since "(...) teachers lacked the most basic understanding of what the practical, classroom implications of the new pedagogy were, (they) misinterpreted learner-centeredness and active learning as meaning that learners should sit in groups" (Stoffels, 2004:20). Stoffels argues that the many challenges that characterised Namibia's experience with large-scale curriculum

reconstruction underscore the fact that teachers cannot change their pedagogical routines through the mere issuance of edicts or circulars.

South Africa was not spared the experience of failed curriculum uptake. Initial classroom-based research in grade 1 in South Africa, on the enactment of the then Curriculum 2005 (C2005) by the turn of century, showed that the instructional practices of many teachers who claimed to have adopted an outcomes-based approach were still characterised by the traditional content-heavy and teacher-centred pedagogy (Christie, 1999; Taylor & Vinjevold, 1999; Malcolm, 2001). The eventual replacement of C2005 can be attributed, at least in part, to its complex organisation and design, tight time frames with no quality teacher training (Stoffels, 2004). In Jansen and Taylor's view "the conceptual adequacy of curriculum reform was a major weakness of the planned change." (2003:40). In addition, the bane of teacher non-involvement or at least non-consideration of contextual realities of teachers in the planning process looms large in explaining C2005's poor uptake. The failure of C2005, as Rogan (2007:118) asserts, illustrates "... the futility of one-size-fits-all planning of implementation."

In a qualitative study of Zimbabwean biology classrooms, Gwimbi and Monk (2003: 221) found out that many teachers persistently used traditional teacher-centred methods and were 'stubbornly conservative' even when teachers were under the Science Education In-service Teacher Training (SEITT) professional development programme. The study showed that teacher conservatism was the result of contextual variables such as large classes, heavy teaching loads and poor laboratory facilities. These factors militated against the adoption of inquiry-based teaching and learning. These findings, in tandem with the earlier reviewed learner-centred reforms in Botswana and Namibia, put into question the technicist approach to educational innovation which assumes that if adequate resources and training are provided then teacher change and innovation success are guaranteed.

Yet another Zimbabwean example of instructional reform failure was the short-lived attempt to implement a skills-based 'O' level History Syllabus 2166 from 1990 to 2002 (Chitate, 2005; Chitate 2015). The new history curriculum entailed the adoption of

participatory and problem-solving approaches in which teaching and learning used primary and secondary sources in the study of history. Chitate (2005) reports that constraints like lack of time and learning teaching materials, combined with the dissonance between what teachers were used to and the expectations of the new syllabus, account for History Syllabus 2166 short-lived flirtations in the school curriculum. The innovation failed mostly because it demanded the use of participatory and problem-solving techniques, methods which teachers were not fully grounded in and lacked proper in-service training. The failure to implement learner-centred methods in these two Zimbabwean examples underscores the conclusion reached earlier on with respect to studies by Fuller and Snyder (1990) and Tabulawa (1998) in Botswana. This is the observation that meaningful curriculum change is predicated on the teacher's personal and situated engagement with the essence of the curriculum reform. Together with the SEITT and History examples, it is important to note that there have been many other attempts to introduce LCP in Zimbabwe before 2015. The difference is that with the ZCF 2015-2022 reform LCP pervades all subjects at all levels the school system.

The studies on the uptake of curriculum reforms in southern African countries draw attention to the inadequacy of centrally planned, *albeit* well-meaning learner-centred instructional policy initiatives. Even when the change is urgently required (as it was in Namibia), or planned with complexity (as in the C2005 in South Africa), or with a component of in-service training (as in the SEITT programme in Zimbabwe), or generally well resourced (as in Botswana), there is need for curriculum policy to incorporate what Stoffels (2004: 20) calls, "... teachers' personal sense-making, their understandings and meanings of the various dimensions of the policy change." In this regard, Rudhumbu and Chiwawa (2014), writing on implementation of change in Botswana, argue that studies show that the majority of curriculum users still operate at a neophyte stage, given their low understanding of curriculum and curriculum change. They advocate the identification and use of enablers for successful curriculum change. The same argument is taken up by Stoffels (2004:24) who advises that policy makers should provide for teacher scaffolding through staff development because "curriculum change is really a (difficult) matter of learning the new pedagogy – (instead of subscribing to) the fallacious notion that they can alter teachers' practices by simple edict".

2.6 Curriculum Change Models, Strategies and Perspectives

The foregoing section examined teacher perceptions on teaching vis-à-vis the enactment of instructional reforms. Implicit in policy reform uptake or enactment are questions of how an innovation comes about, how it spreads, and how it is implemented, that is, adopted or adapted and institutionalised. These questions speak to the way in which change is effected or introduced and made to function in the education system. In bringing about planned change, theoretical frameworks, models, or strategies have been developed to describe ways or procedures by which organisations like the education ministry or curriculum planning body or even a school can effect planned change. An understanding of the strategies used to implement curriculum reforms helps in assessing how well the change takes root in a given education system. Consequently, this section first reviews the traditional strategies of bringing about curriculum change and their relative effectiveness. In addition, a review of the more recent and emergent perspectives of change is given to foreground the articulation of a theoretical framework that undergirds this study.

2.6.1 Early change models of curriculum 1960-1970s

Early models developed by Bennis et al. (1969), Schon (1971) and Havelock (1973), were frameworks for analysing the process of social change including curriculum change in 1960s and 1970s. These models or frameworks or strategies are orientations to describe the dissemination and utilisation of innovations and the associated knowledge. Table 2.1 compares these early models or strategies to highlight their similarity or contrast with regards to their focus.

Table 2.1: Early Models of Curriculum Change Initiation, Diffusion and Adoption

Major focus/direction of change	Proponent, models, approaches or strategies		
	Havelock (1971/73) models (dissemination & utilisation of knowledge/ educational change)	Schon (1971) approaches or strategies (systems for diffusion of innovations)	Bennis et al. (1969), (1969) (Strategies of social change)
Centrally conceptualised, developed & disseminated	Research, Development & Diffusion (R.D&D)	Centre – periphery	Empirical-rational
			Power – coercive
User-initiated development and/or dissemination	Social interaction (SI)	Periphery – periphery	Elements of Normative Re-educative
User-initiated & implemented to meet user needs. Can spread to other users and may reach the centre.	Problem-solver (PS)	Periphery–centre or Client-centred therapy	Elements of Normative Re-educative
Centrally planned but with increased centre-periphery links it multiplies the reach & efficiency of diffusion	Linkage model (LM) Combines the P.S, S.I, and R.D&D models	Proliferation of centres	Empirical-rational & elements of Normative Re-educative
Variable source of origin, spread, impact & duration	-	The movement or shifting centres	-

Synthesised from: *Bennis et al., (1969, 1985), Schon (1971, 1973) and Havelock (1971, 1973)*

The work by Bennis et al. (1969, 1985), Schon (1971, 1973) and Havelock (1971, 1973) provide simple analytical frameworks which encapsulate, *albeit* at a general level, the process of curriculum change. In particular, Havelock’s RD and D model and its equivalent of the centre-periphery approach (Schon) and their derivatives, the linkage and proliferation of centres models respectively, together with the rational-empirical and power-coercive strategies (Bennis et al., 1969, 1985), have historically been the dominant models explaining how innovation comes about and how it is spread, adopted and institutionalised in schools.

Though no strategy or model could be followed in its entirety, there is evidence that some eclectic approach using elements of these strategies were followed in the implementation of educational innovations in post-independence Zimbabwe. Mavhunga (2014:20-21) opines that “(t)here are no indications of a deliberately planned strategy

having been used in all innovations. The panic approach (Obanya, 1987, 2004) seemed to have dominated the innovation landscape”. One could qualify this and say a top-down approach using elements of the centre-periphery, power coercive approach, empirical-rational and the RD&D predominated (Madondo, 2015). The Zimbabwe Science (Zim-Sci or ZIMSCI) Project in the 1980s had “... strong elements of the R,D&D because of the involvement of the University of Zimbabwe in the project” (Mavhunga 2014:19). The ZIMSCI project was designed to supply science kits to rural schools with no laboratories, no electricity and which were manned by unqualified teacher, on Havelock injunction that such like kits had elements of being “user proof” and were guaranteed to work for the most feeble and incompetent receiver (Havelock, 1973:162). However, the ZIMSCI material proved that, if anything, the teacher was still indispensable for instructional success (Hungwe, 1994). To assess the role of change strategies in the fate of centrally initiated curriculum reforms, two other Zimbabwean examples can be cited. The attempt to introduce a centrally-inspired skills-based History Syllabus 2166, as earlier noted, was a failure. Writing on one of these power-coercive centrally initiated innovations; the introduction of political economy in the 1988 to 1990 period, Madondo (2015:439) makes the observation that:

(t)he attempt to introduce Political Economy ranks as one of the most outstanding curriculum innovation failures in Zimbabwe. (...) the introduction of Political Economy failed mostly because it was a top down process of change which was not predicated on a supportive constituency of the various educational stakeholders.

A common attribute of RD&D, the centre-periphery, the rational-empirical and power-coercive strategies is that they derive their philosophical inspiration from the enlightenment and classical liberalism. This philosophical orientation views “ignorance and superstition as the main obstacles to rationality and progressive change” (Blenkin et al., 1992:37). The task of the change agent would be to demonstrate that the innovation works and has been proved to work. Since the potential user, who is the classroom teacher in this case, is rational, he/she would be expected to adopt the innovation out of rational self-interest to tap in onto the potentially increased and proven benefits of the innovation. The power-coercive approach is even more brusque in advocating that curriculum reform be enacted through “... the compliance of those with

less power to the plans, directions, and leadership of those with greater power” (Bennis et al., 1969:23). Hence its main *modus operandi* is the issuance of edicts instructing the user system on what to do.

It is the contention in this review that these early classical models on change are useful frameworks for analysing curriculum change in post-independent Zimbabwe, and particularly the current *ZCF 2015-2022* initiative. Past Zimbabwean experience has taught shown that authoritarian mandating of curriculum initiatives does not necessarily translate into a faithful enactment of the policy reform (Chitate, 2005; Madondo, 2015). The present study benefits from these insights and historical performance of centrally inspired approaches to curriculum change to gauge the interplay of external and local influences in the development and implementation of the *ZCF 2015-2022* in teaching and learning of middle secondary geography.

2.6.2 Emergent perspectives on curriculum change and its possible classroom uptake

The early models and frameworks of curriculum change that have been outlined relate mostly to the 1960s and 1970s in the developed countries like Great Britain and in the 1980s to the new millennium for developing countries like Zimbabwe. New frameworks reflecting a more nuanced conception of the complexity of curriculum change have been developed. This section reviews some of these frameworks based on work from United Kingdom (UK) and the USA. By so doing, such assessment becomes the basis for conceptualising a theoretical framework that guides this research.

Blenkin *et al.* (1992), working from a British context came up with six alternative interpretive frameworks on the basis of which research and theory making on curriculum change could made. The frameworks provide a more sophisticated conception of the multifaceted nature of the curriculum change process together with processes within the school that are promotive or inhibitive of change. The perspectives differ one from the other because of; their assumptions on the nature of change, their conception about schools as social institutions and the role human agency (Blenkin *et al.*, 1992). The six frameworks are: the technological, cultural, micro-political, structural, biographical, and

socio-historical perspectives. The remaining part of this section analyses each of these perspectives with regards to their focus and significance to the present study.

2.6.2.1 The technological perspective

Technical rationality derives from positivist philosophy and assumes that teachers are instrumental problem-solvers while innovators are there to design and develop innovations to solve problems encountered in social institutions like schools (Blenkin *et al.*, 1992). This represents a social division of labour where innovators and teachers are assumed to understand practice in the same way. The educational implications are:

- i) Conceptualisation and planning are removed from implementation where teachers are taken as technicians to implement policy initiatives.
- ii) There is assumption that the innovators and classroom implementers, the teachers, share the same understanding about the change and its implementation.
- iii) There is an inherent failure to identify and close the gap between the original conceptualisation of an innovation and teacher or user interpretation of it at the site of implementation.
- iv) The ideas/prescriptions of policy makers or innovators are taken to be inherently superior to those of the classroom practitioners.
- v) There is an inherent disregard of established systems of meaning that embody schools as social organisations. Resultantly, any school based reaction to the initiative is dismissed as resistance to change. Marris (1974:155) aptly captures this effect thus:

... when those who have power manipulate changes and act as if they only have to explain, and when their explanations are not at once accepted, shrug off opposition as ignorance and prejudice, they express a profound contempt for the meaning of lives other than their own.

The technological perspective of change is limited and distorting. The perspective treats curriculum as a product that is tangible for which it is acceptable to design and develop “independent of its transactional context” (Blenkin *et al.*, 1992:42). The assumption is that when curriculum materials are changed, so is the curriculum. The imposition of centrally prescribed curricula is assumed to be enough to affect change. The locus of

initiative can be external as well as at school level. Thus, the logic that informs reform initiatives can also operate at the school level to produce the same effects.

The change strategy that the technological perspective inspires is the RD&D strategy. Among some of its shortcomings is the fact that it explains innovation failure in terms of technical factors such as ineffective dissemination, and local users' failure to take up the innovation as resistance in the form of 'dynamic conservation' by schools or even a struggle by individuals to remain the same (Schon, 1971:32).

Many schools and teachers are not always pathologically opposed to change. Some teachers, as the case of Mrs Oublier illustrates (Cohen, 1990), welcome changes and there are many instances where local actors are initiators of curriculum changes. The study by Lefstein (2008), as earlier noted, highlights the important function of interactional genres in influencing how instructional reforms play out in classrooms. This further underscores the limited applicability of technicist explanations on how teachers work. In Lefstein's study, both the teacher and his class recontextualised the NLS curricular materials' contents into the interactional patterns common in their classroom. In addition, contextual school or institutional factors can inhibit the uptake of change. The reasons for this go beyond the simplistic technicist explanation to touch on issues of individual psychology in which personality maintaining factors such as habit, insecurity and selection perceptions, come into play to vitiate desired enactment of change.

The technological perspective to change tends to be narrow in its explanation of why curriculum innovations fail. As a perspective to change, it is more useful in what it ignores and leaves out than what it entails. The significance of the approach for this study lies in the need to probe deeper into individual teachers and their classroom and school contextual factors to fully understand the forces that promote or inhibit change.

2.6.2.2 The cultural perspective

Deal (1990) sees schools as complex societal organisations that are glued together by representative networks together with the formal system controlled stipulated goals, official roles, directives and rules. Blenkin et al. (1992) argue that this complex system

makes up the school culture which essentially governs 'the way we do things around here' as represented by habitual practices, meanings given to these practices together with the processes which establish the practices and the meanings. From a cultural perspective, the failure of curriculum reform results from existence of dissonance between a school's ethos, values and ways of doing things, and those encapsulated in the change initiatives. This need for congruence was highlighted earlier in reviewed studies by Stoffels (2004); Tabulawa (1998); Chitate (2005); among many others. These studies highlighted the failure of many learner-centred pedagogy initiatives in Southern Africa due a lack of such congruence.

Schools are sites where diverse cultures intersect and interact. The norms, beliefs and values that constitute school culture are of variable effect in determining what innovation is accepted or side-lined. A major determinant of this is what Rossman, Corbett and Firestone (1988:10) term 'sacred' and 'profane' norms of a school. Sacred norms are essentially immutable and constitute the bottom line beyond which reform is unacceptable (Martin, 2012; Rossman *et al.*, 1988). On the other hand, profane norms are less deeply rooted and can be easily changed. This distinction between sacred and profane norms provides a basis for conceptualising educational change with regards to which mitigating strategies can forestall and neutralise potential local actor resistance. Given that sacred norms constitute the teacher's construction of reality, changes that target such norms may be met with outright resistance. On the other hand, new initiatives can be accepted since they involve 'profane' norms which are easily assimilated into existing traditional practices. However, such assimilation may represent 'superficial change' which is also characterised as "innovation without change" (MacDonald & Rudduck, 1971; Phillips, 2016). Change maybe rejected outright because it is a travesty to the expected or has been superficially enacted, thereby making it a typical case of reform failure. In this context, the failure or success of reform speaks to the need to understand school level conditions such as school culture for corrective action to ensure successful change in either case. The prevalence of unsuccessful enactment of policy initiatives, as observed earlier on by Cohen (1990) is aptly captured by Lefstein (2008:701) thus:

(r)esearch into educational policy implementation has shown that instructional reforms rarely influence classroom practice as envisaged. Teachers ignore, resist, subvert, misinterpret, selectively adopt, or otherwise distort reformers' intentions. Changes tend to be superficial, seldom penetrating the core of instructional practice. Even in cases of relatively high fidelity, teachers commonly cobble new ideas onto the existing practices reformers are attempting to supplant.

This literature on sacred and profane norms underscores the need for change initiatives to be in line with the values and norms of the user system, in particular those of the classroom teacher. Bennis *et al.* (1969), as some of the founding writers on change theory in educational and social settings, articulated this need in their strategies of change, notably the normative re-educative strategy to change. A later study by Cotton (2006) on teaching environmental issues in 'A' level geography recommended that curriculum developers should be guided by teachers' beliefs as they design new curriculum materials so that the materials are used as intended. The need to consider what teachers know and think about personal classroom practice when effecting change resonates with findings of a growing number of studies (Cohen, 1990; Tabulawa, 1998; Lefstein, 2008). The change agent would need to involve the user system in all phases of curriculum reform development from conceptualisation to implementation. This should include pre-implementation sensitisation and induction or staff development to concordantly align change agent and user expectations and meanings on the envisaged change (Kirk & MacDonald, 2001). Curriculum change and implementation literature is replete with injunctions insisting on this precondition of congruence between the cultural norms, values and meanings of the policy reform and the school or user culture (Cohen, 1990; Tabulawa, 1998; Cotton, 2006; Lefstein, 2008; Prochner, Cleghorn, Kirova, & Massing, 2016).

A related aspect of school and teacher culture, which also influences the fate of centrally initiated reforms at implementation, is the occupational culture of teaching. Teaching has been characterised as individualistic, present-oriented and conservative (Lortie, 1975). Studies have also underscored a cult of teacher professional privatism which is reinforced by the necessity for classroom practitioners to demonstrate extraordinary competency while working in classrooms on their own, (Sarason, 1982; Hargreaves,

1984, 1990a). More recent studies on how faithful classroom interactions are to intended instructional reforms have consistently reported cases of infidelity (Cohen, 1990; Cotton, 2006; Lefstein, 2008). The combined effect of inadequate resources, large classes and at times the confrontational nature of learner-teacher interaction, imply that the teacher is in a perpetual defensive struggle for day-to-day survival and may find it a tall order to faithfully enact new instructional policies (Hargreaves, as cited in Blenkin *et al.*, 1992:47). School and teacher culture may however work in another way to promote possible uptake of reform in that aversive working conditions do not always lead to a school working culture that negates change and high performance. In this regard Chikoko, Naicker & Mthiyane (2015) report interesting findings in which South African school heads and teachers working in schools with multiple deprivations actually out-performed well-resourced schools.

Another aspect is that of the inertia of past meaning, as understood by both the classroom teacher and his or her learners, which is reported to be a formidable barrier to change (Rudduck, 1986a; Lefstein, 2008). Learners have been known to hold a very instrumental view of education characterised by fixed expectations of what constitutes appropriate pedagogical practices and curriculum content (Edwards, 1992; Tabulawa, 1998; Lefstein, 2008). Learners who have not been sufficiently engaged on the need to change or on the nature and meaning of change get disoriented by change and tend to preserve their structures of meaning by forcing the teacher to reinstate practices which they are familiar with (Ruddock, 1986a, Lefstein, 2008). In this regard, the study by Lefstein (2008) illustrates how classroom instruction is not determined by the teacher alone but by learners also who can collude in construction of the lesson. This, as noted earlier, resulted in the continued use of established interactional genres thereby constraining possible teacher actions. The overall effect was failure to enact learner-centred activities as envisaged by the English National Literacy Strategy (NLS).

This body of studies on the occupational culture of teaching, highlighting the centrality of the classroom pedagogical interactions as a basis for a more sophisticated conceptualisation of instructional reform, is important for the present study. Blenkin *et al.* (1992) aptly describe teacher adherence to familiar occupational norms and practices

as analogous to the way fish may be the last creature to understand the nature of water. This observation was also confirmed by Cohen (1990) in a study of Mrs Oublier, an elementary level mathematics teacher, Mrs Oublier, who in her religious attachment to using an innovative curriculum guide in teaching 'maths for understanding' believed that she had revolutionised her mathematics teaching. On the contrary, Cohen found that she did not teach 'maths for understanding'. Her enthusiastic claims belied her weak epistemological grounding in mathematics. The finding by Cohen on Mrs Oublier, was in a way similar to the verdict by Lefstein (2008) in the aforesaid study on classroom interactional genres in underscoring the need for teachers and other local actors in instructional policy implementation to share the same understanding as that intended by the proposed change. These findings from literature are important in that they underline the need to examine the enactment of the new *ZCF 2015-2022* reform in geography classrooms as the point of departure for this research and in pointing to possible conceptual foci of the study.

One way to overcome the influence of inertia of past meanings and practices is through establishing collaborative cultures guided by practices of collegiality, openness and trust (Lieberman & Miller, 1990). In the same vein, recent research in the USA on how change penetrates schools has stressed the importance of school level social networks (Sun, Frank & Penuel, 2013). Sun *et al.* (2013) found out that formal leaders, whom Jefferies (2000) working in a New Zealand context terms 'curriculum leaders', promoted changes in instruction through professional interactions with teachers regarding broad professional and instructional practices encompassing; outlining the goals, determining performance criteria, deciding on materials, and testing and grading students. In this connection, Klu, Makhwathana, Mulaudzi, Maluleke, Molefe & Matshidze, (2015) working in a South African context, see the role of school heads as pivotal for successful implementation on the condition that the heads' interest in curriculum development is facilitated by continuous and immediate guidance.

Sun *et al.* (2013) found out that informal leaders, consisting of teachers who hold no position of formal responsibility in the school, influence teachers' individual instructional techniques such as the use of specific approaches for imparting basic reading abilities.

Sun *et al.* (2013), citing Smylie, Conley and Marks (2002); Spillane and Zuberi (2009), further assert that informal leaders also impart values and ideals through professional interactions. This contextualisation of external reform at school level brings about a modicum of 'situatedness' or ecological curriculum. Sun *et al.* (2013) emphasise that instructional change is more likely to take hold through collaboration which can break down teacher isolation and show that their ideas are valued, which in turn makes them more receptive to and analytical of new ideas. The existence of social networks can lead to differential adoption of an instructional innovation among teachers handling the same grade in one school. Sun *et al.* (2013) argue that these findings illuminate on how effective instructional leadership teams can be built where both formal and informal leaders are mutually reinforcing to successfully implement external reform.

A related dimension to the need for school level social networks is the observation that for educational innovations to foster deeper learner understanding, teachers should become active learners in the change process. '*Teachers as learners in a professional community*' is an approach meant to enhance how teachers can understand the knowledge, skills and dispositions embedded in a new curriculum (Darling-Hammond & Skyes, 1999, as cited in Stoffels 2004:30; Spillane & Jennings, 1997).

One main conclusion from classroom-based studies on the enactment of instructional policy reforms is that centralist policies undergo variable transmutation as they are mediated by prevailing school and classroom cultures and practices (Lortie, 1975; Cohen, 1990; Blenkin *et al.*, 1992; Lefstein, 2008). The implication of this literature on school culture is that successful change is contingent upon fundamental reorientation in school culture including classroom interactions and the genres that characterise such interaction. This is what Deal (1990) calls transformation involving collective renegotiation of historically anchored myths, metaphors and meanings.

This implies that the present study in investigating how the ZCF new curriculum is being transacted in geography lessons should focus, in part, on whether and how historically anchored myths, metaphors and meanings are being changed to enable the new learner-centred initiatives to be implemented. In focusing on the classroom interactions, studies such as those by Cohen (1990), Tabulawa (1998), Lefstein (2008) and Pondiscio

(2015) underscore the importance of the events in the ‘black-box’ of the curriculum and thus remind policy implementers, and indeed researchers, that even learners are important in determining the fate of instructional change. This is an emphasis which the technological perspective tends to underplay. For the present study, this translates into the need to investigate how and whether middle secondary level geography teachers teach, and learners learn in line with the learner-centred policy expectations of the *ZCF 2015–2022*. In all this, it is when teachers are predisposed to enquiry rather than mere collaboration *per se* that change can occur (Blenkin *et al.*, 1992, Schweisfurth, 2013).

2.6.2.3 The micro-political perspective

The technological and cultural perspectives tend to treat schools as homogeneous entities. The micro-political view highlights the importance of internal school level differences and tensions. Change is taken to be inherently destabilizing in causing rearrangements of power relationships between individuals and groups. New changes, in threatening the balance of power, have the potential to create conflict and are thus usually unwelcome in schools. Innovations have the effect of making some teachers ‘winners’, some ‘losers’ and yet others ‘sideliners’. A different approach to the micro-political perspective is the use of a micro-interactional perspective, as suggested by Lefstein (2008), to research school reform policy. His research concludes that classroom instruction is determined by both learners and the teacher as they interact in the classroom.

2.6.2.4 The biographical perspective

The biographic perspective focuses on how change influences or is influenced by the professional and life experiences of teachers. Biographical perspectives refer to the practitioners’ thought processes and world views. Teachers’ biographical experiences, hopes, aspirations, commitments, beliefs, fears and values are important in determining how teachers react to external policy initiatives (Blenkin *et al.*, 1992; Jita, 2004). In the coverage on the ‘problem of implementation’ and subsequent review of orthodox change implementation strategies or models and perspectives on curriculum change, a pervasive theme has been and is that the key to successful instructional policy uptake at classroom level is the need to bridge the gap between the change agent’s intention

or understanding and that of the local actor or teacher or implementer. Bridging this gap necessitates interventions like staff development programmes or some form of induction along Bennis et al. (1969) normative re-educative strategy. The staff development programmes and induction are the means by which practitioners are persuaded to discard normative orientations and values that inform their practice and get committed to new ones encased in the instructional reform. In this way, change may begin to occur. In this regard, it is a truism that successful uptake of change or reform is contingent on appropriate staff development of teachers or implementers. The content of such staff development is derived from an understanding of the practitioners' biographical attributes. Understanding the practitioners' biographical attributes is predicated on analytical frameworks such as personal construct and social interactionist theory. The present research, informed by the biographical perspective, sought to examine, foremost, the geography teachers' understanding of the changes encased in *ZCF 2015-2022*. This justification on the need to focus on biographical aspects of the teacher in the present study emanates from a reading of biographical perspective literature. Such literature is replete with the observation that successful curriculum innovation is contingent upon characteristics of teachers which, if absent, may necessitate professional development (Bennis et al., 1969; Bishop, 1986; Sarason, 1990; Fullan, 2000). In the same line of persuasion, studies by Lefstein (2008) and Jita (2004) suggest that a set of teacher capabilities over and above the common ones such as; subject mastery, pedagogical and general teaching skills are needed for successful enactment of new instructional approaches. Lefstein (ibid) further contends that such a set of teacher capabilities include unspoken understanding and consciousness of social interactions, self-knowledge and control. There is consensus among writers that in acquiring the requisite capabilities needed for successful enactment of instructional change, teachers should be provided with relevant documents, curriculum support materials and staff development and should possess extra-classroom-interaction social skills (Blenkin et al., 1992; Lefstein, 2008).

A review of the work by, Bishop (1986), Blenkin et al. (1992) and Lefstein (2008) among others, is helpful in identifying teacher biographical attributes that make acceptance of proposed change possible. The focus on biographical attributes in the reviewed

literature enabled this research to identify teacher characteristics associated with successful implementation. Some of these teacher characteristics or dispositions include:

- a) the preference to use tried and tested strategies as this offers some degree of security, stability and control.
- b) inclination to policy initiatives that are meaningful to teachers. Changes should be consistent with the teachers' beliefs so that they are readily accommodated or assimilated into their existing structures of interpretation. There should be neither cultural nor cognitive dissonance occasioned by the new curriculum initiative.
- c) being reflective and able to foster collaborative networking.

Sarason (1982) argues that successful change is predicated on successful assimilation of the innovation into the existing programmatic and behavioural regularities of school cultures and teacher repertoire of competences. The bringing in of external changes shifts the locus of control to the external, away from the teacher. Consequently, the teacher is most likely to resist such changes. As an example, if the pace and direction of reform is not within teacher's control, anxiety on carrying out a proposed change increases.

Another aspect of the biographical perspective involves the life history approach in which teachers record their experiences through methods like journal keeping. This gives teachers a voice which can be helpful in implementing user-friendly reforms. The life history method also shades light on whether teachers, during their careers, pass through cycles or phases when they readily accept, resist or ignore change. One is reminded of old-timers' staffroom folklores of 'we have seen it all' in the face of new reforms. Study findings in the area of teacher burnout confirm changing teacher attitude to work with change in their professional life cycle. Faber (1991) identifies the increasing and overwhelming "sense of inconsequentiality" that, in most cases, is a later part of a teacher's career. Early in their careers many teachers are imbued with a sense that teaching is a satisfying and socially meaningful profession. In time this initial enthusiasm dissipates to be replaced by frustration and lack of motivation.

The issue of the teachers' professional life story is an important ingredient in understanding their reaction to change. In addition, the concept of 'storied identities' (Drake *et al.*, 2001) is an important building block to this study on enactment of reform in a given subject. The idea of storied identity posits that subject-matter content areas, in this case geography; serve as proper settings in which teachers construct their professional identity, including interpreting and enacting policy reform. To this end, it became instructive for this study to investigate how being a geography teacher facilitates or inhibits the enactment of the ZCF reform initiative.

Researchers are generally agreed on the need to give teachers a voice in wake of changes that affect teaching and learning in their classes. The reviewed literature on teacher's life and work, and the 'storied identity' perspective provide a basis for formulating key issues on which to focus when examining the reaction of teachers to change in view of their job and personal experiences. In highlighting the importance of the biographical perspective to understanding curriculum reforms, Blenkin *et al.* (1992: 60) say "... the structures of meaning through which teachers interpret their work are not idiosyncratic; they are social constructions mediated through the occupational cultures and discourses within which teachers' practices are located." The biographical perspective guides this research on the need to hear the geography teachers' voices on the easy or difficulty or impossibility of using ZCF 2015 – 2022 recommended learner-centred pedagogical approaches. The research methods suggested as useful in examining teachers' attitudes and reactions to change, which include the use of life history method (journal keeping and 'storied identities'), served as a pointer to possible data gathering methods for this research, hence the use of self-reflective journaling and vignette scenario responses in this study.

2.6.2.5 The sociohistorical perspective

The socio-historical perspective, deriving its initial impetus from the work of Ivor Goodson (1981, 1983, 2001), is a useful framework for analysing and interpreting the process of curriculum change. The approach seeks to understand "where subjects came from and why they were as they were" (Goodson 1987: viii). Goodson's work is rooted in sociology of education, which boasts of some leading education sociologists such as

Young (1971) and Bernstein (1971). An important focus of this school of thinking is captured in the words of Bernstein who articulates that: “(h)ow a society classifies, distributes, transmits and evaluates the educational knowledge it considers to be public, reflects both the distribution of power and the principle of social control” (Bernstein 1971:47).

Goodson (1971) asserts that subject-based groups promote pedagogic and useful traditions towards the subject area. Hence, the curriculum is often seen leading to inter-subject rivalry and conflict over status, resources and influence. Socio-historical analysis offers insights into the process of curriculum change as follows:

- i) The school curriculum, as a socio-historical construct, is inherently political and the promotion of one area will involve campaigning against the interests of others (Blenkin *et al.*, 1992:68). The successful adoption of learner-centred methods in geography such as fieldwork may depend on the relative place of the subject and its teachers in a school’s way of organising subjects and its power structure which in turn may influence the availability of material and financial resources.
- ii) Social relations are built around subjects. Thus, closely knit members of a subject may enhance the adoption of innovation through collaboration and networking as earlier noted in the review of research by Sun *et al.* (2013). Conversely, the group may be resistant to change if the teachers perceive the innovation as undermining their values, relative power and privileges.

The socio-historical or subject-histories perspective provides invaluable understanding of the micro-politics of schools. For the present study, it beckons attention to potential geography teacher cooperation for or against the enactment of learner-centred teaching that the *ZCF 2015–2022* advocates. In subject teachers, their groupings and their potential leverage within the school administration and academic set up, lies the potential of either gatekeepers against change or communities of practice that allow new practices to set in. An area of inquiry closely linked to the biographical perspective, is the development of a teacher’s personal vision, which Fullan (1993) argues, gives meaning to the job and can withstand organisational or group influence. This is linked to the concept of storied identity which, as was noted earlier on, contributes to teacher

personal self-concepts that can promote or vitiate instructional reforms. Personal vision or personal purpose permits organisational change since through it a teacher can guard “against group-think and possibility of fragmented, surface changes acquired uncritically, and which can be easily discarded” (Fullan, 1993:3). Individual ability and collective mastery are mutually reinforcing in learning organisations. This reviewed literature on subject-related professional outlook, storied identity, personality and potential for communities of practice, is important to this study as it points to areas of possible inquiry on how the *ZCF 2015 -2022* policy initiative is faring in middle secondary geography teaching.

2.6.2.6 The structural perspective

Similar to the socio-historical perspective but operating at a larger scale from outside the school, is the structural perspective. The structural perspective has a long history though it is subject to numerous revisions and emphases from time to time. The perspective argues that schooling reflects the wider economic, social and political structures in society. The curriculum is viewed as a contested terrain. Curriculum policy tends to follow the changes in public or governmental policy. Blenkin *et al.* (1992), for example, have shown that in the UK and other western countries the post-1980 period was characterised by economic austerity and increasing dependency on market forces. Resultantly, the curriculum was becoming commodified. Some of the shifts in educational emphasis linked to this involved;

- i) shift from emphasis in issues of educational access to those of curriculum entitlement in policy.
- ii) increasing and persistent unemployment leading to increased national and local government inspired influence on curricular policies.
- iii) wider societal expectations related to employment and examinations.

Such structural changes, among others, tended to constrain teacher freedom and individual agency due to increased demands on their time. As a result, “too often the failure to bring about change is (was) laid, uncritically and unfairly, at the teacher’s door” (Blenkin *et al.*, 1992:62). In the UK, structural changes such as comprehensivisation, introduction of certificate secondary education (CSE), mixed ability teaching, subject

integration, open plan classrooms, among many others, were therefore expressions of societal forces shaping changes in education. However, it is not always that teachers' work and the focus of the curriculum is structurally and externally determined. There is room for individual agency. This can be through changes resulting from increased teacher collaboration, action research and reflective practice, as was earlier argued with respect to the cultural perspective. The implication is that a system that allows increased teacher collaboration may allow the uptake of curriculum changes. Worth noting is the fact that structural variables create the larger contextual milieu in which change is encouraged or stifled. In his assessment of post-independence curriculum reforms in Zimbabwe, Mavhunga (2014) avers that being of external origin to the school, structurally inspired policy initiatives tend to take root if predicated on populist ideology. Mavhunga quotes one of his informants as saying, "(t)he period after 1980 was a period where people anticipated change. People tended to be sympathetic with change. Change was understood as necessary. There was no time to consult and, therefore, any change would be taken on board" (Mavhunga, 2014:19). The influence of structural variables can be said to be indirect. The structural perspective suggests the need to examine structural variables that promote or inhibit change as curriculum change is conceptualised and developed. Section 2.11, on the context of curriculum change in Zimbabwe in this review, further interrogates the relationship between reform and the broader societal influences.

2.6.2.7 The cognitive perspective: Local actor cognitive sense-making framework

The review of curriculum change literature, conventional models of change and the six perspectives on curriculum change and its implementation by Blenkin *et al.* (1992), have underscored the need for the local implementers of instructional policy to share the same meaning of change as that of the initiator, change agent or policy maker, if enactment of policy is to be a success. A central proposition to which these frameworks invite attention is that the fate of instructional reform is with teachers, who may accept, correctly apply, selectively adopt, adapt, distort, misinterpret, subvert, ignore, resist or reject outright the reformers' intentions (Leftstein, 2008).

Barring the negative effects of other factors like technical hiccups and lack of resources as earlier argued in the section on the challenge of implementation, there is consensus in the reviewed literature that the root cause of implementation failure is a lack of understanding or cognition of change processes. Consequently, a growing number of studies on how implementing agents understand or interpret policy have been undertaken in the last two decades (Ball, 1994; Spillane *et al.*, 2002; Beckford-Smart, 2006; Blignaut, 2008; Musingarabwi & Blignaut, 2015 Musingarabwi, 2016; Chimbi and Jita, 2019). These studies have adopted a cognitive perspective to the area of curriculum policy implementation research. Research efforts have focused on the understandings and meanings that local actors or implementing agents hold on the proposed curriculum or instructional policy. This body of studies yields a cluster of terms to characterise the implementing agent's understanding such as; 'interpretation', 'cognition', 'sense-making' 'learning', and 'reading' (Ball, 1994; Spillane *et al.*, 2002; Blignaut, 2008).

The research by Spillane *et al.* (2002) is seminal in that it sought, through a synthesis of theoretical and empirical literature such as the foregoing reviewed theoretical perspectives identified by Blenkin *et al.* (1992), to understand how local actors interpret the demands that are made on them by the need to implement public policy initiatives. By exploring the conditions under which such change is possible, Spillane *et al.* (2002) constructed a cognitive framework for understanding local actors' sense-making in the implementation process. Their study relied on concepts from social psychology, basic cognitive processes, social cognition and situated cognition. They adapted and adopted conceptual tools from work in situated and distributed cognition to frame implementation research.

Spillane *et al.* (2002) portray local actors, such as teachers, as making sense of a given policy on the basis of the interplay of three factors namely; cognitive schemas (relating to knowledge, beliefs, and attitudes) they possess, the existential conditions in which they operate together with policy indications encased in the intended reform. These three clusters of factors are the dimensions or components of their model and can be elaborated as follows:

- i) The implementing agent as sense-maker relates to *Individual cognition*.

- ii) *Situated cognition relates to the implementing agent as social sense-maker.*
- iii) *Role of representations or policy signals* involve a consideration of the role of policy stimuli (predisposing elements in the implementation policy) in influencing the local actor's decisions.

The importance of the cognitive sense-making framework is twofold. Firstly, prior to implementation it serves as a sounding board on which a policy and its potential can be measured, and changes made if needed. It is also a key to explaining the fate of policy as assessed by the local agent since the identified dimensions or categories help to explain the understandings which implementing agents come up with *vis-à-vis* a given policy initiative. The cognitive model put forward by Spillane *et al.* (2002) enables analysis of the implementation of policies with regards to whether they demand superficial change or substantial changes in implementing agents' schemas. Substantial changes to the agents' schema augur well for successful implementation. The idea of 'superficial versus substantial change' parallels that on 'profane versus sacred norms' discussed earlier on in **Section 2.6.2.2**, and for which Fullan (1993, 2000) uses the terms 'branch change versus root change'.

The cognitive framework has merit in being comprehensive in its scrutiny of possible sources of policy failure. In addition, as the authors contend, the model supplements existing models of implementation by including an aspect which hitherto had not been fully addressed in policy implementation literature. This involves the incorporation of a bottom-up approach in the implementation process as it purposively seeks the local implementers' views, which in the biographical perspective in **Section 2.6.2.4** has been termed the teacher's voice. The bottom-up approach ensures that implementing agents' scripts or schemata, together with their situations, which are constitutive elements in the sense-making process, are incorporated. Further to this, the cognitive model is not linear, that is, the sense-making process is not necessary prior to decisions by implementing agents in adopting or adapting the policy into local practice. It allows an iterative process where understanding can follow action and vice versa.

The cognitive sense-making guide put forward by Spillane *et al.* (2002) is a framework guiding understanding on how a curriculum or instructional policy is understood by the

implementing agent or teacher. An analysis of conclusions in the foregoing review underscores the primacy of teacher understanding of the implemented innovation as key to the success of that implementation. A case in point is the conclusion highlighted earlier (**Section 2.5**) in studies by Fuller and Snyder (1990) and Tabulawa (1998) in Botswana, that meaningful adoption of learner-centred pedagogy is predicated on the teacher's personal and situated engagement with the essence of such an instructional reform. Spillane *et al.*'s (2002) cognitive framework has the capacity to gauge the requisite teacher's personal and situated engagement with reform.

The cognitive sense-making framework by Spillane *et al.* (2002) has guided research on teachers' sense-making of curriculum policy reform enactment elsewhere (Blignaut, 2008; Musingarabwi & Blignaut, 2015; Musingarabwi, 2016). A case in point is its application by Blignaut (2008) in South Africa. Researching in South Africa, Blignaut (2008) explored how three teachers, working in diverse educational contexts, deployed their sense-making in the light of the need for change. Utilising a cognitive sense-making framework as guided by the cognitive framework of Spillane *et al.* (2002), Blignaut (2008) concluded that the teachers adjust to a curriculum rather than accept it as given. The study concluded that the teachers' classroom practices depended on their existing understandings and beliefs on content, how content can be taught effectively, its assessment and the workplace settings. This accounted for the gap between policy and practice. Musingarabwi and Blignaut (2015) also applied a sense-making perspective to understand how primary trainee teachers in Zimbabwean schools figure out and structure their personal reactions vis-à-vis the HIV/AIDS education innovation.

Spillane *et al.*'s (2002) cognitive framework is relevant to this research. The framework is a guide to understanding how a curriculum or instructional policy is understood and enacted by the implementing agent or teacher. It has the potential to explain the fate of policy vis-à-vis the local agent which, in the present study, is the *ZCF* inspired learner-centred pedagogy vis-à-vis the geography teacher at middle secondary school level. In other words, this research is guided in its broad conceptualisation, focus, methodological approach and analysis of findings by the cognitive framework of Spillane *et al.* (2002), and other perspectives that have been reviewed hitherto. This study

represents, in a way, a replication of studies, *albeit* mostly outside Zimbabwe, that are founded on the sense-making perspective to understanding the implementation of a reform policy.

2.7 Theoretical Framework for the Study

The reviewed literature on curriculum change theory and models, interpretive perspectives and the cognitive framework provide important heuristic devices that aid scrutiny of conceptualisation, development and implementation of externally inspired instructional change. They are the conceptual lens through which to gain an understanding of the fate of external reforms once such reforms are placed in schools and classrooms. It should be noted that no one perspective offers a privileged or more correct interpretation of the occurrence of change, its effective implementation and its characterisation descriptively, prescriptively and analytically. Each approach has its own merits and limitations. Each perspective or framework is built upon a foundation of guiding concepts. This can be illustrated with respect to the cognitive framework by Spillane *et al.* (2002) on policy implementation which, as was noted earlier in **Section 1.6**, is a synthetic amalgam from multiple concepts from social psychology, basic cognitive processes, social cognition, and situated cognition. For the present study, knowledge of the hitherto reviewed curriculum change perspectives and, *sui generis*, their constitutive concepts, are the basis for gaining insight into the ZCF-related change process in geography teaching and learning at middle secondary level.

An eclectic merging or amalgam of reviewed curriculum change theory and models, interpretive perspectives and the local actor's sense-making cognitive framework is depicted in **Figure 1.1**. This eclectic framework, derived from a synthesis of the aforesaid change literature reviewed in this chapter, is the lens through which this research is framed.

The framework has its theoretical base from the various perspectives, models and the cognitive framework on the implementing agent's sense-making in instructional reforms. The individual teacher or implementer in interpreting and making sense of instructional change, uses, usually in an unconscious manner, individual cognition, situated cognition and his or her reading of the policy signals to filter information and influence from the six

perspectives and classical models. The framework suggests that in assessing implementation and enactment of policy, a researcher has to be guided by the interplay of interpretive perspectives as they shape the teacher's sense-making in light of the need for instructional change. This framework is the explanatory lens to understand how and why classroom practitioners make pedagogical choices in the light of the new curriculum requirement of learner-centred methods in geography teaching and learning. In using this conceptual framework to guide the research, the advice given by Hatch (2002) and Stoffels (2004) is handy. The advice is that a framework may be changed in the course of the study as research evidence allows. This speaks to the need for dynamic conceptualisation to allow for the possible influence of other perspectives during the research.

2.8 The Context of Curriculum Changes in Zimbabwe

In some of the foregoing sections, passing and disparate references have been made to the fate of instructional policy in Zimbabwe in the past. This section gives a unitary synopsis of educational change in Zimbabwe meant to provide a historical context of the present *Zimbabwe Curriculum Framework* for primary and secondary schooling from 2015 to 2022. Educational reforms, including those targeting instructional policy, are neither new nor confined to Zimbabwe among the African and the world's family of nations. Since the attainment of majority rule in Zimbabwe in 1980, many changes have occurred in education. Much has been learnt from the successes as well as from failures about curriculum change, its development and implementation. The difficulties of conceptualising, developing and implementing effective curriculum change through centralised initiatives are also well documented in Zimbabwe (Jansen, 1991; Chitate, 2005; Ndawi & Maravanyika, 2011; Mavhunga, 2014; Madondo, 2015).

An analysis of the change strategies employed to effect curriculum change in post-independence Zimbabwe by Mavhunga (2014) concludes that there were no stated strategies to guide the implementation of both subject-based and national curriculum-wide changes. Reforms such the introduction of the system-wide ZIMSCI project, education with production (EWP) and the introduction of technical-vocational (Tec-Voc) subjects, in the 1980s, had a modicum of success due to what Mavhunga (2014) argues,

was a strong political justification. In explaining such success Mavhunga quotes one of his informants as saying that “(a) well justified innovation has a high chance of success” (2014:19). The alleged successful uptake of technical-vocational (Tec-Voc) subjects has not been able to dislodge the predominantly academic curriculum which is one of the reasons for the 2014-15 curriculum review (Ministry of Primary and Secondary Education [MoPSE], 2014, 2015 and 2016). In addition, it can be observed that, as the structural perspective (**Section 2.6.2.6**) argues, change emanating from the wider society gets apparent support due to the nature of its origins, that is, its power-coercive approach. The verdict of ‘successful change’ appears to refer to a system-wide nominal presence of requisite subjects but no studies have probed into the pedagogical success of the introduction of, say, the Tec-Voc subjects. The failure of Political Economy, another innovation intended for system-wide application in the 1988-1990 period, was mainly due to it being a centrally inspired reform which did not benefit from a board-based stakeholder initial consultative conceptualisation process, (Jansen, 1991; Madondo, 2015;). The eventually withdrawal of a skills-based history syllabus 2166, which entailed the adoption of learner-centred participatory and problem-solving pedagogy, was mainly due to the fact that there was dissonance between the teachers’ established teacher-centred approach to history teaching and the proposed critical thinking skills and source-based approach (Chitate, 2005). In another subject specific innovation, as noted in **Section 2.5**, a study of biology teachers by Gwimbi and Monk (2003) confirmed teacher resistance to learner-centred pedagogy in preference to the use of traditional teacher-centred methods due to variable contextual conditions such as a large teaching load and a lengthy syllabus to be covered.

Other instructional policy changes in the post-1980 period in Zimbabwe such as the multi-faith approach in religious education, the use of mother tongue up to grade 3 (8 years) affecting the whole education system and other subject specific innovations are few examples portraying the nature of educational change and its checkered implementation process. These examples constitute the contextual backdrop against which the *ZCF 2015–2022* curriculum reforms play out. The historical antecedents which can be drawn from these examples are fourfold. Firstly, the predominance of a

technicist, power-coercive, RD&D-related approach which depended on top-down edicts to guide change implementation resulted in facade change (case of ZIMSCI project, EWP, and the uptake of Tec-Voc subjects). Secondly, that resistance to learner-centred pedagogy resulting from a lack of predisposing teacher attitudes, working conditions characterised by heavy workloads and inadequate teacher in-service training (cases of SEITT Biology teachers and History syllabus 2166). The third scenario is that outright innovation rejection by structural forces, like the church as a provider of education, underscores the need for stakeholder participation in the development of the curriculum innovation (case of Political Economy). A fourth observation is that explanation of curricular reform success or failure has tended to highlight the effects of macro-scale issues such as the strategy of the change process, technical and logistical challenges to the exclusion of classroom-based and teacher sense-making processes as indicated by literature in the form of studies by Cohen (1990), Tabulawa (1998), Blignaut (2008), Lefstein (2008), and Musingarabwi and Blignaut (2015). Here exists a gap in research efforts concerned with the place of classroom-based teacher sense-making processes in analysing and understanding the uptake of externally inspired instructional reforms which the present study can begin to address. A review of the *ZCF 2015–2022* development processes and its main intended curricular changes is given in the following section to further illuminate on the context of the proposed *ZCF* changes.

2.9 The Zimbabwe Curriculum Framework 2015-2022 Process

The *ZCF for Primary and Secondary Education 2015-2022* document presents a curriculum reform undertaking meant to provide a medium-to-long term policy direction for a rapid and sustainable transformation of the education system through to 2022 (Dokora, 2016). The framework functions as the “main reference document informing the development of syllabuses, revision of syllabuses, development and use of learning resources and the creation of guidelines for in-service teacher training and support” (*ZCF*, 2016:2). The process commenced in November 2014 with a nationwide multiple stakeholder consultative curriculum review process. The reform process was/is characterised by the following milestones:

- a) A nationwide consultative process that reached almost a million people (about 8% of Zimbabweans), and “involved stakeholders such as 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, newscasts, features and interviews in all platforms.” (Dokora, 2016: v). This was meant to ensure a widespread stakeholder participation in the curriculum review (Draft Zimbabwe Review Methodology pdf. 2014).

- b) Data processing resulted in the development and subsequent validation of the Curriculum Framework document by mid-2015.
- c) Syllabus revision, development and trial testing in 2016.
- d) Implementation: inception phase targeting Early Childhood Education (ECD), Infant (grades 1 and 2), forms 1, 3 and 5 as from January 2017.
- e) Implementation: second phase targeting Junior level (grades 3 to 7), forms 2, 4 and 6 earmarked for 2018 onwards (Permanent Secretary’s Circular Number 2 of 2017).

The adoption of this enclave strategy of implementation, that is islands or phases of innovation, as opposed to a whole-system approach has been suggested by Kusek and Rist (2004) as an opportunity to demonstrate and buttress the efficacy of an innovation, such as the *ZCF 2015-2022* reform, with built-in processes of monitoring and evaluation whose results can guide on-going implementation. The implemented curriculum is envisaged to run as seven-year cycles, where the end of each cycle is marked by a comprehensive curriculum review.

2.10 The *ZCF 2025-2022* Process and the Legacy of Change by Edict vis-à-vis Stakeholder Participation

Mavhunga (2014), writing on the strategies adopted for effecting of curriculum change in the post-independence era to the 2014 curriculum review period, recommended that future curriculum change should have, among other attributes, a well stated and planned change strategy that embraces all key stakeholders including the user system and clear diffusion and dissemination mechanisms. In this regard, the *ZFC* development process can be evaluated with respect to these recommended attributes to gauge how far the

process represents a departure from past practices to foster a more local actor sensitive instructional change.

In justifying the need for a reviewed curriculum, the words of MoPSE minister Dokora (2016:iv) make clear the central function of the external reform initiator, which is the government, in curriculum reform initiation in that:

(t)he decision to develop the Curriculum Framework was made in the context of the government's focus on preparing Zimbabwean learners for the needs of the 21st century, growing concerns amongst policy makers and key stakeholders regarding the relevance of the education system and the changes in global education standards. Historically, the Zimbabwe education system, (...) emphasised the development of strong content knowledge at the expense of critical skills and competencies. There is, however, increasing recognition that content knowledge mastery is not adequate as an exit attribute. The emphasis is now on developing higher-order thinking skills and competencies.

Like the preliminary stakeholder consultation, the curriculum review and subsequent curriculum development enjoyed a modicum of stakeholder participation. Subsequent involvement was characterised by stakeholder validation of the Curriculum Framework, the design of syllabuses using subject panels made up of representatives from stakeholder groups and curriculum materials pilot-testing that involved teacher and stakeholder inputs leading to materials revision. The *ZCF 2015–2022* document recommends that successful implementation of the curriculum reforms be predicated upon structural changes within MoPSE. The elements and processes constituting the envisaged successful implementation matrix include:

- i) MoPSE head office, namely the seven principal directors or Heads of Departments (HODs) are at the apex of the structure that monitors and evaluates the curriculum reform implementation.
- ii) The staff complement at the Curriculum Development and Technical Services (CDTS), the section that houses the Curriculum Development Unit (CDU) which is the statutory body mandated with curriculum development, was set to be increased for successful implementation.
- iii) At lower levels - the front-end of implementation in the Districts - the inspectorate is to be strengthened so that "(t)he return of the schools inspectorate will assist

greatly in the implementation and monitoring of the new curriculum.” (ZCF, 2016:53).

- iv) The establishment of the Teacher Capacity Development programme and the creation of opportunities for continuous professional development of provincial, district and school implementers.
- v) The drive for resource mobilisation and creation of synergies among partners in the curriculum implementation process by establishing; a participatory structure, and a Centre for Education Research, Innovation and Development (CERID).

An analysis of these implementation elements and processes underscores the predominance of technical processes that involve required structural and communication networks to enhance smooth flow of messages mostly from developers at the centre, MoPSE and CDU, to users at the periphery. The elaborate activities, processes and programmes were meant to bridge the gap in the understanding or conception of the curriculum change as held by the ‘change agency’ (Fullan, 1993) or developers, and the users. Indeed, the initial and subsequent stakeholder consultations, on such a wider scale, mark a departure from past practices in initiating curriculum change. In the past little if any stakeholder consultations were undertaken (Mavhunga, 2014). However, mere stakeholder involvement and increased collaboration between change agents and clients may not be emancipatory to teacher practices. In this regard, an illustration is the November 28, 2014 nation-wide consultation event which marked the start of the review process in earnest. A short coming of this event was about the main data generation instrument, a pre-coded questionnaire on change agent identified curriculum themes. The categories responded to were given, that is they were *a priori* categories, which did not originate from the stakeholders. There was also a general finding that many participants, including teachers, were not deeply knowledgeable of curriculum issues raised, and hence some responses were therefore conveniently classified under the ‘other responses’ category (Unpublished Report on the National Consultation Process 2015:1). The consultative process was thus more of a rubber stamping exercise with little original input by the participant.

There is a sense in which the forms of stakeholder participation were mainly aimed at solving the technical challenges of translating proposed policies through the need to be seen to consult widely. Involvement of teachers and stakeholders through consultations and validation exercises, as was common in the process of coming up with the *ZCF 2015-2022*, can be regarded as a hegemonic tool used by those in power to ensure that their policies got the clients' rubber stamp of approval, thus paving way to 'effective' implementation. In these circumstances, consultation smacks of a 'contrived' collaboration tinged with stakeholder input. The so-called consultative process could be viewed as a 'quick-fix' or choreographed act by those in power to serve administrative control requirements rather than teacher and stakeholder empowerment. Not all consultation is effective participation, in much the same way change is not all virtue, both need to be sanitised for effectiveness, value and purpose.

In the same vein Mohammed and Harlech-Jones (2007) depict a bureaucratically controlled implementation process that can best be described as a paradox of good intentions. Writing in a Pakistani context, which greatly parallels the *ZCF 2015-2022* situation, Mohammed and Harlech-Jones observe:

that while the reformers claim that they value flexibility, participation, discovery, discursiveness and openness, they are often directive and unilateral in implementing their reforms. The second paradox is that, while advocating respect for the knowledge and experiences that children bring to the classroom, reformers often devalue and ignore the accumulated knowledge and experience of teachers, school heads and middle-level education officials (2007:39-40).

Mohammed and Harlech-Jones further suggest that implementers do not understand the specific conditions under which local actors such as teacher operate. Other studies have equally shown that the reason for reform failure may lie in the contradiction between the curriculum policy intent and practical ways for getting teachers to implement the change. In the case of Mrs Oublier's failure to teach mathematics for understanding, as the guide *Maths their Way* recommended, Cohen (1990) argues that teacher empowerment such as effective in-service preparation and staff improvement or even collegiate networking, did not accompany the new instructional initiative. A study of classroom enactment of the NLS by Lefstein (2008) showed unsuccessful uptake of

the NLS instructional reforms due to an inherent contradiction in its strategy for teacher staff development and the classroom pedagogy these teachers had to adopt in literacy classes. The NLS clearly advocated collaborative and inventive instructional approaches that used open discussion questions resulting in learner critical thinking whereas the NLS teacher improvement programme used a transmission pedagogy where teachers inevitably got the message of learners as passive, readily accepting recipients of a tightly teacher-controlled teaching-learning process. In the words of Lefstein (2008:718), “(t)he professional development’s hidden curriculum communicates ideas about teaching and learning that undermine its explicit curriculum.”

The foregoing critique of the nature of teacher participation and staff development that accompanied the *ZCF 2015–2022* reform process is important to this research. As the review on the structural perspective (**Section 2.6.2.6**) to change has shown, successful uptake of change is contingent upon appropriate staff development of teachers or implementers. Furthermore, as the cognitive framework of Spillane *et al.* (2002) underscores, there is need to understand the teacher’s reading of the instructional reform policy provisions. The overt emphasis on *ZCF*-related stakeholder consultation and involvement, structural changes and mobilisation of resources, though necessary and commendable, tends to fit the characterisation by Tabulawa (1998) of failure to introduce a learner-centred pedagogy in geography teaching in Botswana. The learner-centred pedagogy failed since it was a rigorous application of scientific method procedures, namely instrumental problem-solving. In such a process, bureaucrats develop, mobilise resources and inputs to implement change without specifying how this translates to teacher action in classrooms. Instead of using this technicist approach for pedagogical reform, the reviewed literature proffers an alternative classroom ecology approach (Schulman, 1986) where teachers’ sense-making (Spillane *et al.*, 2002) can contribute to reform uptake predicated on local actor’s cognition. In sum, knowledge of the envisaged *ZCF 2015–2022* staff development activities and related supportive activities enable the research to gauge how well these activities shape predispose to teacher’s interpretation of learner-centred pedagogy in geography teaching and learning, thereby contribute to either successful or unsuccessful policy enactment.

2.11 Changing Roles of Education Players and Stakeholders in the ZCF Reform

The focus of the review in this section is twofold, namely the nature of learner-centred pedagogy and the changing roles of players in education that this entails. However, it is essential to first describe the world-wide changes in educational provision that form the backdrop against which these two aspects can be examined. Currently the global changes in education emphasise a move from teacher-based to learner-based methods (Reynolds, Judge, Jones. & McCreery, 2013). Table 2.2 is a summary of the current shifts in education.

Table 2.2: The Teaching and Learning Changes Associated the ZCF Reform

Shift from	Shift to 
Curriculum as product	Curriculum as both process and product
Learning occurring only in schools	Engagement in learning should in fact be a life-long activity for which schools must prepare their learners by teaching them how to learn.
Didactic teaching	Participatory and learner-centred and interactive methodologies
Teaching	Learning
Transmission of facts	Learners to construct knowledge and make-meaning
Memorisation of learnt material	Analysis, synthesis, evaluation, application of information (demonstration) Competence-based
Rote learning	Applied learning / learning in context. Emphasis on analysis and problem solving.
Focus on inputs	Focus on outcomes, processes and outputs
Categorised knowledge in traditional subjects	Integrated knowledge (broader learning areas)
Assumption that there are limited learning styles	Recognition that there are many varieties in learning styles
Summative assessment of academic achievement	Formative and summative assessment of achievement in a range of domains
Quantity of educational provision	Quality of learning achievement

Adapted from the Zimbabwe Curriculum Framework 2015 -2022 (2016:10).

It is from these global changes, as contextualised to broad national imperatives affecting education, the economy and other spheres in Zimbabwe that the intended instructional changes are derived (ZCF, 2016:11). A major instructional thrust of the curriculum framework is adoption of learner-centred methods to teaching and learning across all curriculum learning areas and subjects, including geography. It is needful therefore to examine the conception of learner-centred learning portrayed in the ZCF 2015-2022.

2.12 Instructional Reform: Learner-based Instruction and Learning

The changes encased in *ZCF 2015-2022* present major shifts in education particularly in teaching and learning where the policy emphasis is now the adoption of learner-centred teaching and learning methods. In the words of the *ZCF 2015-2022* (2016:41), “(t)he curriculum framework stresses learner-centred approaches. The focus on learning revolves around learners as they engage in the search and discovery of new knowledge.” The new curriculum gives the following as characteristics of the intended learner-based teaching and learning methods:

- a) Learning is designed to focus from lower to higher levels of cognition.
- b) Research-driven.
- c) Participatory.
- d) Collaborative work among learners in class and with others beyond the school.
- e) Teacher is there to facilitate and coach.
- f) Integrated and interdisciplinary teaching.
- g) Assessment as part of and informing on teaching and learning.
- h) Multiple forms of media, projects and performances are used for learning.
- i) Multiple literacies relevant to life and work are used to inform on learning and teaching (*ZCF 2015–2022*, 2016:41-42, Gao, 2019).

The *ZCF 2015–2022* document identifies inquiry-based learning as an example of a learner-centred approach which nurtures thinking, reflection and problem-solving among learners. The following are given as the general attributes of inquiry-based approach to learning:

- i) having a questioning stance, research and communication skills.
- ii) problem-solving.
- iii) collaborating within and outside the classroom.
- iv) developing an in-depth understanding of subject content.
- v) participating in the public creation and enhancement of ideas and knowledge.
- vi) encouraging critical thinking.

The *ZCF* document identifies four teaching methods which fall under the ambit of the inquiry-based approach as being: discovery method, problem-based learning, project-

based learning, and design-approach to learning. It can be noted that the attributes of the recommended inquiry-based teaching and learning broadly replicate the six principles of constructivism by Glatthorn (2000) and the eighteen characteristics of constructivist theory of teaching and learning as synthesised by Murphy (1997).

There is consensus in literature that learner-centred pedagogy, together with such methods as teaching for critical thinking, inquiry learning and problem solving are part of the same genre of instructional techniques grounded in a constructivist research framework (Postman & Weingartner, 1969; Kim, 2005). In constructivist phraseology, learner-centred pedagogy is learning which involves the construction of learner knowledge from learner experiences. In this connection, Grabinger and Dunlap (2016) refer to need to create a Rich Environment for Active Learning (Reals) which entail providing collaborative learning activities in which learners utilise their real or authentic experiences. Thus, a synthesis of current Zimbabwean educational reform documents and constructivist literature shows that the learner-centred teacher has certain behaviour attributes such as; abandoning the role of an authoritarian dispenser of knowledge to being a facilitator and enabler, facilitator of knowledge construction through interactive methods, interest in having learners learn how to learn and building "... a positive relationship through knowing and cherishing each learner ... (and ensuring) that each learner experiences success through structured support" (ZCF, 2016:49). The list below, based on the work of Postman and Weingartner (1969) captures some of these learner-centred teaching behaviours as:

- a) Encouraging learner-learner interaction and collaborative learning as opposed to learner-teacher interaction.
- b) Developing his/her lessons from the authentic interests and responses of learners and not from a previously determined plan as to how the lesson should proceed, as also highlighted by Lidstone and Williams (2006).
- c) Using questioning as the basis for classroom interaction with learners.
- d) Mainly interested in helping learners to learn how to learn.
- e) Gives examples to show that education is a reflective process of finding answers and solutions to challenging situations.

- f) Rarely tells students what he/she thinks they ought to know.
- g) Promotes openness to alternative perspectives and rarely accepts a single viewpoint as an answer to an enquiry, as also highlighted by Lidstone and Williams (2006).

Studies in other African contexts on learner-centred pedagogy highlight features such as; attention to the child as an active learner; learning through problem posing and inquiry; use of locally-relevant curricula and teacher reflection to improve practice (Vavrus, Thomas & Bartlett, 2011). This literature suggests that the presence of such attributes in the teaching-learning milieu contributes to enactment of the learner-centred curriculum and instructional policy. These suggestions from literature formed the basis from which the study was on the lookout for learner-centred attributes similar to these.

These submissions on the nature of learner-centred pedagogy have to be qualified with regards to the varied meanings found in extant literature. There is consensus in literature that the concept 'learner-centred pedagogy' is difficult to define as it means different things to different people. This lack of agreement may be illustrated by the multiplicity of terms used to depict learner-centred pedagogy in extant literature. Apart from learner-centred pedagogy (LCP), which is preferred in this study, terms such as *student-centred learning*, *learner-centred education*, and *child-centred approach* have been used to convey the same idea. To these characteristics outlined in the foregoing submissions, this study takes on board the ideas of Schweisfurth (2013) who after an extensive literature review on learner-centred pedagogy adopts an international perspective on student-centred education and sets 'minimum standards' for this type of education (2013, p. 146). These are:

- i) Lessons should be engaging to students and motivate them to learn.
- ii) There is mutual respect between students and teachers, reflected in the way in which both behave.
- iii) Learning challenges build on students' existing knowledge.
- iv) Dialogue is used in teaching and learning, with students having the opportunity to discuss their ideas.

- v) The curriculum should be relevant to students' lives.
- vi) The curriculum should be based on skills, attitudes and content and should support critical and creative thinking.
- vii) Assessment should test skills and knowledge and not be based on rote learning.

This body of literature was important in the identification of learner-centred teaching behaviours which are the ideas and processes around which concepts that undergird the study are founded. Further, these issues become the focus of what was investigated through the various data generating instruments. In this way the ideas and processes helped in coming up with study instruments like the *Learner-Centred Practices Gauge (Appendix 14)* and *Lesson Observation Guide (Appendix 15)* the used in this study and described fully in Chapter 3 on research methodology. In addition, the constructivist origin of learner-centred methods and the related inquiry-based methods underscore the need for teachers in the various learning areas to be conversant with these methods and the basic requirements of the constructivist method to teaching and learning. Traditionally, constructivism has a natural home in the teaching and learning of natural sciences, hence its wider use by all teachers calls for appropriate scaffolding in the form of teacher in-service courses.

A scrutiny of literature shows that the preference and use of learner-centred pedagogy in geography and other subjects has been a subject of debate for a long time (Walford, 1981, Roberts, 1996, Metto & Makewa, 2014; Awases, 2015; Rupert, 2017). Writing on teaching styles and strategies in geography, Roberts (1996) highlights the problem of fitting classroom practice into distinct categories. Roberts argues that the labels by which teaching and learning are described bring with them dilemmas such as that of control implicit in teacher-based *vis-à-vis* learner-centred approaches and the dilemmas of meaning of curriculum characterised by knowledge as content *vis-à-vis* knowledge as process. Focusing on one approach, like the learner-centred approach recommended in the *ZCF 2015–2022*, makes a statement on the choice of educational aims and the underlying philosophy. Walford (1981), long suggested a close relationship between teaching style and ideological positions, namely: (i) the liberal humanist tradition favours a teacher dominated style since the aim of education is the passing on of cultural heritage, (ii) the child-centred tradition which stresses personal development, (iii)

utilitarian tradition emphasising the need for passing on knowledge and skills useful to society, (iv) the reconstructionist tradition that sees education as a vehicle for changing society, and (v) a constructivist approach leaning towards post-modernism in emphasising the need to have learners collaborate and make meaning from the contexts they operate in.

There is, however, a sense in which the teaching method used by the teacher is a response to prevailing conditions that make up the teaching and learning milieu. There is growing realisation that how teachers execute their job cannot be changed easily compared to the content they teach. According to Roberts (1996:237), “(t)eachers adapt their styles and strategies to the cultures and subcultures in the schools and indeed to meet their own needs of coping with day to day demands of being a teacher”. The emphasis in research currently on teaching-learning methods seeks to understand and not to label what is taking place in the classroom. The use of labels such as ‘learner-centred’, ‘progressive’ ‘teacher-dominated’ tend to be value-laden and can prevent authentic understanding of what happens in classrooms. Teachers as practitioners should seek to analyse and engage critically with their own practices.

This literature on teaching methods underscores the need to have teachers understand and be proactive on the use of policy proposed methods of teaching. One would argue that the preference for ‘learner-centred’ methods in the *ZCF* is more emblematic than a superficial view of learner-centeredness as requiring that learners sit and work in groups (Stoffels, 2004). A nuanced view of learner-centeredness, which this study takes on board, comes through in subsequent sections that discuss the roles of stakeholders in the *Zimbabwe Curriculum Framework (ZCF) 2015–2022* scheme of things.

2.13 New Roles of Education Players and Stakeholders

The successful uptake of envisaged student-centred teaching and learning necessitate that educational players and stakeholders assume roles that are consistent with the intended change in line with learner-centred pedagogy. The *ZCF* document suggests roles for various players and stakeholders, namely learners, teachers, school heads, parents, professional associations, commerce and industry, the school development committees, education partners, local area panels and the Zimbabwe Schools

Examinations Council (ZIMSEC). For this review, it is illuminative to examine the intended roles of learners, teachers and school heads vis-à-vis submissions from literature to gauge how fit-for-purpose the intended roles are in the quest for learner-centred pedagogy.

2.13.1 Changing roles of the learner

There is general recognition that the *raison d'être* for providing education is in the interest of the learner. The following are the expected learner roles and attributes which are envisaged to make the focus on learner-centric pedagogy a success, that the learner:

- a) Is alert to learning objectives and expected learning outcomes (learner competency).
- b) Takes part in meaning making in the classroom or learning milieu.
- c) Participates in inquiry and problem-solving learning, and community service based knowledge and skills acquisition.
- d) Engages in reflection and self-assessment.
- e) Shows self-awareness to evaluate successes and failures, strengths and weaknesses.
- f) Is open to guidance and counselling for coping with the demands of life and growing up.
- g) Is encouraged to make suitable career choices. (ZCF, 2016:44).

There is consensus that for successful enactment of instruction, learners should be made aware of what is expected of them (Lefstein, 2008; Tabulawa, 1998; Murphy, 1997; Castronova, 2011). This submission resonates with the emphasis on 'aware of learning', 'self-awareness' and 'self-assessment' in the foregoing ZCF list of student roles. In same vein, but taking a view of culmination of expected learner attributes, Utete-Masango (2016:iv) observes that ZCF seeks to:

... develop young Zimbabweans who are knowledgeable, can think critically, creatively and have leadership skills and are able to communicate effectively. The learner must be imbued with values, ethics, and a sense of national identity enabling them to make the right choices for themselves, their families and the nation with a view to enduring and overcoming life's inevitable challenges.

One of the pre-conditions for this to happen, is learner awareness and appreciation of what it is that they are learning. The point which was made earlier on needs restating, and that is, learners need to be sufficiently engaged on the nature and meaning of change to support its enactment in classrooms. The reviewed literature is important for this research since knowledge of what instructional policy expects of learners is an important attribute for determining and researching the success or failure of such a policy.

2.13.2 Teacher roles and attributes predisposing to learner-centred instruction

The *ZCF 2015–2022* document emphasises the need for teachers to adopt specific roles to successfully enact learner-centred methods in their classrooms. Teachers are not the sole sources of knowledge and information in a knowledge economy such as the one we live in today. Teachers are expected to develop competencies in learners to enable them to access and process information individually in a responsible manner and thus acquire generic life skills. Implicit in all this is the teacher competence of teaching students how to learn. Table 2.3 compares the *ZCF* expectations on teachers' roles with one scheme from literature.

Table 2.3: ZCF Teacher Roles Compared with Interactive Professionalism Attributes

ZCF envisaged teacher roles (ZCF 2015-2022: 44-45)	‘Interactive professionalism’ in Fullan, 1993:10) Ability to:
Is capable of detecting learning difficulties and offer suitable support.	Is a reflexive practitioner and action-oriented.
Utilises a variety of methods adjusted to the needs of students and need to use interactive pedagogies.	
Fosters linkages between learning areas and disciplines and supports integrated learning.	Seek variety and avoid balkanisation. Develop a risk-taking mentality.
Can mainstream transversal curricular offerings, viz. liberation history as part of the fight for human rights and participatory citizenship for peace education; education for sustainable development; gender equality.	
Possesses intercultural understanding; life skills; health education; enterprise education; media education; ICT and e-learning	Has faith in people and their practices.
	Appreciate the total person in interpersonal work.
Is interested and participates in developing customised curricula and materials and supports flexible study arrangements in line with the school autonomy principle	.
Undertakes formative assessment and gives guidance, counselling, motivation and support to learners	Commit to continuous improvement and perpetual learning. Monitor and strengthen the link between self and learner development.
Facilitates learning for students through meaningful activities.	
Communicates and integrates well with learners, parents and other stakeholders.	Professionally functions beyond the classroom.
	Values both work and life.
	Articulates inner voice.
Utilises team work and Communities of Practice or Professional Learning Communities (PLC)	Encourage co-workers in interactive professionalism.
	Obligated to working with colleagues.

Adapted from the ZCF (2015-2022) and Fullan (1993)

As is evident in Table 2.3, the ZCF scheme of 10 identified teacher roles compares fairly well with other schemes, and in this case with the 12 components constituting Interactive Professionalism by Fullan (1993). Fullan (1993:3), writing on the latter scheme opines that teachers with these attributes combine “... the mantle of moral purpose with the skills of change agency.” Fullan (1993:5) captures the teacher attributes as allowing for change thus:

In sum, the moral purpose of teaching must be reconceptualised as a change theme. Moral purpose without change agency is martyrdom;

change agency without moral purpose is change for the sake of change. In combination, not only are they effective in getting things done, but they are good at getting the right things done. The implications for teacher education and for redesigning schools are profound.

By extension and based on the many comparable elements in Table 2.3, one could argue that the *ZCF 2015-2022* suggested teacher attributes can facilitate the enactment of the proposed learner-centred instructional reforms on the condition that teachers are in-serviced on requisite attributes. A requisite attribute for a teacher which Fullan (1993) raises, but which is not clearly spelt out in the *ZCF* scheme of teacher roles, is that of commitment to continuous improvement and perpetual learning. The *ZFC* identifies one of the aims of education as fostering life-long learning through learning-to-learn, embracing ICTs and e-learning, flexibility and adaptability, problem-solving, critical thinking and creative skills (*ZCF*, 2016). Though the curriculum framework stresses the importance of life-long and continuous learning as an important learner-exit attribute, it can be argued, along the lines taken by Fullan (1993:4) that, "... teachers as change agents are career-long learners, without which they would not be able to stimulate students to be continuous learners." Fullan (1993:10) goes further to highlight that:

(t)he professional teacher, to be effective, must become a career-long learner of more sophisticated pedagogies and technologies and be able to form and reform productive collaborations with colleagues, parents, community agencies, businesses, and others. The teacher of the future, in other words, must be equally at home in the classroom and in working with others to bring about continuous improvements.

The reviewed literature is replete with descriptions of teachers as 'decision makers' and 'meaning makers', when faced with the need to implement change (Schulman, 1986; Fullan, 1991; Spillane, 2000). Earlier on it has been stressed that collaborative learning communities buttress the adoption of a change ethic among teachers (Sun et al, 2013; Klu et al., 2015). For the present research, these 'ideal' teacher attributes predisposing to change would be the focus of research to find how their absence or presence determines the fate of the learner-centred pedagogy initiative in geography teaching and learning. Attention to requisite teacher attributes either making for or vitiating change enables this study to engage with what Fullan (1991) calls the 'phenomenology of change.' This is concerned how teachers experience change, in contrast to policy

makers' intended change. Cast as a question this would be: Does the learner-centred approach entail that teachers alter their pedagogical assumptions, teaching methods, methods of organising their classes and how they assess their learners? In focusing on how geography teachers understand the learner-centred approach, this research probes teacher subjective realities that make up the meaning and essence of change. School change scholars are generally agreed that unless teachers, school leaders and other actors in education understand and share the same meaning on policy meaning, the policy may be not get implemented (Fullan, 2015; OECD 2017:12).

2.13.3 The school head: Implementer of or gatekeeper against instructional reform?

Literature reports a twofold reaction by the school head in the light of curriculum and instructional change. School heads can either be implementers of change or can serve as gatekeepers preventing the enactment of change in schools (Fullan, 1991; Sarason, 1982; Joseph, n.d.). Since the school head has this reported ability to hinder or promote implementation of change, there is need to establish what the *ZCF 2015-2022* and other literature say are the roles of the school head in the change process. *The ZCF 2015-2022* (2016: 45–46) gives the following as school head roles that would make implementation of externally inspired changes possible:

- i) Providing a safe, pleasant, learner-friendly, and enabling learning environment.
- ii) Involving interested parties and stakeholders in decision making in schools.
- iii) Provides varied learning and choices as allowable through a broad curriculum.
- iv) Monitoring continuous assessment and learner profiles.
- v) Provides for uniformity across the school (“whole-school approach”) through learner-centred instruction in the school.
- vi) Utilises networking among schools through exchanges on various aspects of their work.
- vii) Supports school-level staff in-service preparation and mentoring to sharpen professional skills.
- viii) Collaborates with stakeholders in crafting school vision and mission and strategies in sync with the Ministry direction.

- ix) Works in collaboration with stakeholders in designing a school development plan and accountability procedures during implementation.
- x) Implements inclusive education predicated on the diverse needs of learners.

It is beyond debate that the identified roles of the school head augur well for successful implementation if they can all be realised. As earlier pointed out in this review, Sun *et al.* (2013) have shown that formal leaders like school heads were effective in enacting instructional reforms through professional interactions with teachers in respect to generic instructional activities such as outlining the goals, determining performance criteria, choosing materials, and evaluating students. These areas of school head influence are covered in the proposed ZCF head roles outlined above. What is needed is that school heads are sufficiently in-serviced if they are to perform their instructional roles as expected. The same argument proffered earlier on that for teachers to promote life-long learning they themselves must engage in life-long learning, applies, *ipso facto*, to school heads. School heads should have a strong buy-in into the innovation if they are to support it at school level. The need for training of school heads, as was noted earlier by Klu *et al.* (2015), is pivotal for successful implementation on the condition that the heads' interest in curriculum development is facilitated by continuous and immediate guidance.

To fold this examination of the role of various educational stakeholders in ensuring that curriculum initiatives like the ZCF recommended learner-centred pedagogy take root, several points need stressing. It has been shown that the roles of learners, teachers and school heads, like those of other stakeholders, should be consonant with the intended emphasis on learner-centred pedagogy. The roles so described, give a more nuanced portrayal of learner-centeredness from a contextual reading of the ZCF 2015 – 2022 document. This review of expected roles provides the content of focus around which to build a deeper understanding of learner-centeredness and to conceptualise research issues for this study. The focus on these three groups of stakeholders is on the understanding, as confirmed by other reviewed literature, that they are able to offer profound understanding of classroom enactment of learner-centred pedagogy in teaching and learning geography at middle secondary level. This has a delimiting effect

on the study of focusing on the teacher, the learner and the school environment as represented by the school head. However, an additional important dimension in probing the meaning of learner-centred pedagogy in geography teaching and learning is an understanding of geography itself and its teaching in the context of *ZCF 2015-2022*. It is to this issue that the following section turns.

2.14 The Quest for Learner-centred Pedagogy in Geography

The quest for learner-centred pedagogy, or whatever instructional reform, is realised through the classroom teaching and learning of a specific learning-area or subject. Though the learner-centric shift has now been encapsulated as policy in *the ZCF 2015-2022*, it can be highlighted that invocations for a learner-centred teaching dot many a page of specific subject syllabuses in both the pre-1980 and post-1980 periods. The changes envisaged in the *ZCF 2015–2022* document include both the introduction of new subjects or grouping of subjects in learning areas and more importantly the need to incorporate learner-centred approaches and emphasise competences and skills as opposed to the erstwhile focus on content (Dokora, 2016).

In geography, writers working from a British and Western context have consistently stressed the need to use learner-centric teaching-learning methods (Graves, Naish, Slater, Kent and Hilton, 1983; Kent, Lambert, Naish and Slater, 1996; Lambert and Balderstone, 2010). In the African context there has also been a growing concern with LCP with authors such as Vavrus et al. (2011) editing a compendium entitled: *Ensuring quality by attending to inquiry: Learner-centred pedagogy in sub-Saharan Africa*. In tandem with this, a legion of African writers have reported on use of learner-centred pedagogy in geography (Tabulawa [1998, 2013, 2015] in Botswana; Metto and Makewa [2014] in Kenya; Awases [2015] in Namibia; come to mind. Kagoda (2009) writing in a Ugandan context captures a synopsis of these various authors' endorsements on the possible learner-centred approaches, skills and applications in Geography as being "... an optimum learning situation for every individual student (...) through use of group discussion, role play, fieldwork, debate, game and simulations." (2009:27). This emphasis on LCP especially field-based studies finds support in the work by Rice and Bulman (2001). In the light of such LCP endorsements the current stipulation by

Geography Syllabus 4022 to use learner-centred pedagogy builds upon a long established and veritable subject tradition. This literature on these more Geography-specific learner-centred approaches, skills and applications informed the research on what to focus on in the scrutiny of the new Geography syllabus 4022 which given in chapter 4. In so being this body of literature shaped the content and scope of the documents scrutiny process as a means of data generation on of learner-centred approaches, opportunities and contents encased in these official policy curriculum and syllabus documents.

The envisaged ZCF 2015-2022 changes involve a shift is from a subject content-based curriculum that is examination-driven to a competence-based and outcomes-oriented curriculum (*ZCF 2015–2022*, 2016:4). The focus on competence acquisition entails developing learners' capacity to apply facts, abilities and attitudes in an independent, creative, hands-on and responsible way to address different challenges (*ibid*). The drive for competences involves acquisition of problem solving, critical thinking, leadership, communication, technological, enterprise, self-management, management and learning, and innovation skills.

The list of intended skills is similar to the popularly vaunted 21st century skills which have been defined as “a set of (learning, literacy and life) abilities that students need to develop in order to succeed in the information age” (Merriam-Webster Online, 2017). Added to the focus on competences, the *ZCF 2015 2022* (2016:33) gives a list of cross-cutting or transversal themes and issues which have the potential of being integrated into the content of any curriculum subject. The cross-cutting issues are; life skills, enterprise skills and financial literacy, digital literacy, collaboration, Constitution of Zimbabwe, heritage studies, human rights, HIV and AIDS, guidance and counselling, child protection, gender, environmental issues and disaster risk management.

The demands of the new curriculum on the geography teacher can be regarded as three pronged, namely: (i) requisite content knowledge (CK) and skill in the identified competences and the relevant cross-cutting issues, (ii) ability to meaningfully integrate

or dovetail these skills and competences with the geography syllabus, and (iii) the pedagogical skill to teach these and other geography content using the recommended but nuanced learner-centred pedagogy. There are other demands such as need for systematic continuous assessment which, though not the focus of this study, serve to complicate the menu of intended changes. The repertoire of teacher attributes needed to effectively transact the learner-centred pedagogy demanded by the ZCF assumes there is no disjuncture in the three-pronged demands to which the geography teacher should respond. This amounts to the possession of the requisite pedagogical content knowledge (PCK) as proposed by Schulman (1986). The need is for geographical content that is congruent to the stipulations of the new curriculum which needs to be culturally contextualised as affirmed by Slater, Norman and Lambert (2016:191) writing in a British context thus:

... that geographical knowledge, far from being static, is constantly evolving and that at any time (and dare we say place) the fundamental purpose of the school subject “Geography” is to encourage students/pupils to learn to think in particular geographical ways deemed by their culture and society to be beneficial in some way.

Although preliminary syllabus design and development work would have decided issues of what content to include, what cross-cutting issues to integrate and what competences to emphasise and where, the teacher would ideally need to have an understanding of the attendant rationale and processes on these dimensions to effectively enact the intentions of the new curriculum. A reading of literature suggests that this ideal situation is not easily realised at classroom level. This challenge can be illustrated with related competences of problem solving and critical thinking. The need for a connecting link and congruence between expected learner competences, the teacher’s content knowledge and the requisite pedagogical skills can be illustrated with the proposed acquisition of the ZCF learner exit-skill of problem solving. The teacher should be skilled in problem solving and its derivatives such as action research, reflexivity, self-renewal, collaborative action enquiry and consultation, if he/she is, *mutatis mutandis*, to effectively train the learners under his/her charge in the competence of problem solving. A similar case can be made with regards to the instruction for critical thinking skills.

Although the need to develop critical thinking is vogue in many instructional reform initiatives like the *ZCF 2015–2022* proposal, “... in reality very little specific curriculum for explicit critical thinking instruction for secondary students is available” (Marin & Halpern, 2011:11). Researchers in geography are generally agreed that learners should be taught to use their learning of geography to be more independent decision-makers and enquiring individuals (University of Sydney, 2016). Literature on geography education and other literature on critical thinking highlight the use of neo learner-centred methodology to develop this competence (Duron, Limbach & Waugh, 2006; Balcaen, 2011; Marin & Halpern, 2011). In the words of Marin and Halpern (2011:1), the use of “... imbedded instruction with critical thinking skills woven into the content matter, (...) challenging students to think beyond subject matter recall and memorisation through questioning and discussion”, is a preferred approach.

What can be surmised from the foregoing situation concerning instruction in geography for problem solving and critical thinking *vis-à-vis* the *ZCF 2015–2022* initiative, is the need to have teachers be staff developed and supplied with materials to guide them teach for problem solving and critical thinking. The quest for these competences would remain paper invocations in the absence of these supportive implementation measures. In a study on teaching for critical thinking (TfCT) in the *ZCF 2015-2022* reform at middle level geography classrooms, Madondo (2018) underscores this need to train and equip teachers with TfCT competences and skills as part of implementing TfCT and learner-centred pedagogy (LCP).

A related issue which requires illumination from literature is how well learner-centred teaching approaches in geography have fared elsewhere. Research by Tabulawa (1998) in Botswana on geography teachers’ classroom practices found out that teachers, continued to use teacher-dominated methods instead of learner-centred pedagogical approaches recommended by policy. Teacher practices were incongruent to policy stipulations due to teacher-held assumptions on nature of knowledge, students, and pedagogy which were incompatible with the main tenets of the learner-centred approach. As already noted, there is need to have a deeper understanding of learner-

centeredness as an occasion for teachers to analyse and engage critically with their own practices.

Related to the above, reviewed literature underscores that both what and how teachers teach is not easily changed in the wake of new curriculum requirements, though Roberts (1996) opines that this is more so for the latter. In a study in Sweden, Molin and Grubbström (2013) found out that middle secondary geography teachers believed in traditions which determined the content (country-related knowledge and map reading skills) that they taught. These in turn influenced the teachers' views on what skills could be developed through learning geography. The pervasive influence of established traditions is also reported by Chi-Chung Lam (2007) on a research of junior geography teaching in China. The study found out that teachers were strongly governed by a culture of compliance and the need to avoid uncertainty thereby avoiding implementing pro-learner curriculum initiatives. These researchers came to the same conclusion as previous studies that geography teaching remains relatively unchanged despite curriculum and instructional reforms.

This body of studies in geography teaching and learning confirm teacher difficulties in adopting both the content changes and pedagogical approaches encased in new curriculum and instructional policies. This speaks to the necessity for teachers to be grounded in the content knowledge and have a mastery of learner-centeredness than what value laden labels of 'teacher-centred' or 'learner-centred' convey at face value. A central motif in submissions from reviewed studies is the need to have teachers being staff-developed and supplied with instructional materials on how to use learner-centred pedagogy meaningfully to achieve intended competences. The implication of this body of studies, for this research, is that teachers imbued with the necessary learner-centred pedagogy skills, problem solving and critical thinking competences, among other competences, are *sine qua non* to the successful enactment of curriculum and instruction reforms encased in the ZCF 2015-2022 document.

2.15 Summary of the Chapter

The reviewed literature in this chapter has been multi-focused. Firstly, the aim in synthesising the conceptions of planned curriculum change and the related genre of

terms such as innovation, reform and development, was to have correct and up-to-date conceptions of these terms which are central to this research. As part of this initial unpacking of the study's central concepts, the coverage on change implementation as the Achilles' heel of the curriculum process, posited that this was, at least in situations of centralised curriculum planning, a result of the separation of curriculum design and development processes from implementation in schools which also fails to adequately consider and involve school level variables such as teachers' understandings of the intended change. It has been postulated that reviewing the traditional strategies or models of change, though formulated to explain curriculum change in the 1960s to the 1980s, gives a firm basis for understanding the explanatory power of subsequent emergent perspectives on curriculum change and recent curriculum sense-making frameworks, to the process of implementing externally initiated change in schools.

Although many theoretical perspectives of curriculum change have been developed based on numerous studies on how implemented changes have fared in the classroom, the strategies deployed to implement externally initiated change are fraught with inadequacies. Many of these approaches tend to generalise and gloss over the unique factors within each school that may vitiate genuinely needed change. The variation from school to school, from classroom to classroom, makes it hard to generalise as to how change should occur or how it ends up being subverted. The need for a micro-perspective for understanding local actors' sense-making in the implementation process has been provided through Spillane *et al.*'s (2002) cognitive framework. The cognitive framework by Spillane *et al.* (2002) has been portrayed, in this review, as a synthesised and contemporary model to understanding curriculum policy failure or success and contributing to policy formulation that is user-friendly and less susceptible to failure or tissue rejection. A synthesis of reviewed curriculum change theory and models, interpretive perspectives including the local actor's sense-making cognitive framework, formed the background against which was proposed an *a priori* eclectic cognitive sense-making framework on teacher's pedagogical decisions on instructional reform to guide this research. This proposed theoretical framework is the heuristic device guiding this study on how geography teachers enact the ZCF 2015-2022 inspired learner-centred pedagogy at middle secondary level.

The reviewed curriculum change theory and models, interpretive perspectives, the sense-making cognitive framework and the proposed eclectic framework, provided the foundation on which a nuanced synopsis of the historical context of curriculum change in Zimbabwe could then be made. This review critiqued the *Zimbabwe Curriculum Framework 2015-2022* processes, and examined its recommendations on curriculum content, learner-centred pedagogy and the changing roles of various stakeholders *vis-à-vis* submissions in literature. The review lastly examined the prospects of learner-centred pedagogy in geography *vis-à-vis* the ZCF pursuit for competences and transversal issues.

The reviewed literature repeatedly draws attention to the requisite school level, teacher and classroom attributes that either make for or vitiate change. The literature resonates with the need to engage with what Fullan (1993, 2000) calls ‘the phenomenology of change’, which describes teachers’ experience of change in contrast to how the instructional reform is intended (Fullan, 1991; Magrini, 2015). The persistent call on the need to scaffold teacher efforts towards intended change has been succinctly articulated by Stanley et al. (2012:279) who, writing on the enactment of a competency-based curriculum by the Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA), assert that “... teachers require careful support and planning to ensure that they possess the skill sets to deliver such a curriculum effectively”.

This research in seeking to examine the implementation of *Zimbabwe Curriculum Framework 2015-2022* in geography at middle secondary level is rooted in the studies on how teachers actually experience change. Overall, the review fosters insights and understanding on the dynamics and complexities of implementing curriculum reform. The insights and understanding so engendered are the bedrock from which the conceptualisation, methodological approaches and interpretive lens of the present study have been culled.

In the next chapter, a detailed coverage of the data generation or generation process and the strategies is presented. The chapter explores techniques employed to get insight on how the four geography teachers made sense of the current curriculum policy

blueprint, the *ZCF 2015-2022* requirement to use learner-centred methods in their form 3 and 4 geography classrooms.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes and justifies the methodology used to investigate the main research question and attendant sub-questions that guided this work. The chapter outlines the purpose of the study as a basis for looking into aspects of research paradigm, choice of research methodology and its justification, research participants and their selection, ethical issues, data generation and data analysis. A chapter summary folds the chapter.

3.2 Purpose of the Study and Study Questions

The research examines geography teachers' understanding and enactment of learner-centred pedagogy as proposed by the *Zimbabwe Curriculum Framework (ZCF) 2015-2022*. In this regard, the main research question of the study is: *How do geography teachers enact a learner-centred pedagogy in form 3 and 4 classes as part of implementing the ZCF 2015-2022?* In turn, the following are sub-questions emanating from the main research question:

- i) What are the *ZCF 2015-2022* policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?
- ii) How do geography teachers understand the *ZCF 2015-2022* instructional requirement to use learner-centred approaches in the teaching and learning of geography at form 3 and 4 levels?
- iii) How do geography teachers enact learner-centred instructional approaches in geography lessons as part of implementing the *ZCF 2015-2022* at middle secondary level?
- iv) In what ways can teachers' understandings and practices be explained and understood in the context of the need to implement *ZCF 2015-2022* proposed learner-centred teaching and learning approaches?

To answer these questions, the study employed a multiple case study research approach in which classroom lesson observations, semi-structured teacher participant

interviews, teacher self-reflective journaling (Ortlipp, 2008), use of simulated response vignettes, a self-checking learner-centred practices gauge, and documentary analysis were the main techniques of data generation used. The use of a multiple case study design and the multiple data gathering methods, as just outlined, was deemed appropriate in soliciting data to answer the aforementioned research questions. There is need to explain and justify the choice of research paradigm prior to examining the choice of research methodology and its justification, research participants, ethical considerations, data generation, issues of validity and reliability and data analysis.

3.3 The Research Paradigm

The concept of paradigm was popularised by Kuhn in his seminal work: *The Structure of Scientific Revolutions* (Kuhn, 1962). A paradigm is the conceptual framework or the main belief system or worldview that guides practices and the construction of new theories in a given discipline, field or scientific area. With reference to research, some of the common paradigms include the quantitative-positivist, the qualitative-interpretative and mixed-methods approaches. The present study focuses on how geography teachers enact a learner-centred pedagogy in form 3 and 4 classes. In order to understand how teachers understood and made sense of and enacted the new geography curriculum as articulated through the *ZCF 2015-2022*, the comparative ability of the positivist-quantitative vis-à-vis the interpretative-qualitative approach in providing the required guidance needs to be considered.

The qualitative-interpretative paradigm was deemed more suitable since, as advised by Bascia and Hargreaves (2000), it can investigate the personal experiences and thinking of individuals which, in this case, was how teachers implement learner-centred lessons. In addition, an interpretative approach is in line with the cognitive perspective (Cotton, 2006; Lefstein, 2008; Gathercole, 2015), and more specifically the cognitive sense-making framework which undergirds this research based on work in cognitive sense-making by Spillane *et al.* (2002). This framework posits that teacher sense-making in the process of implementation of a new curriculum is predicated on cognitive processes, social cognition and situated cognition. In treating the teacher as a sense-maker, this study sought to unravel how individual teachers notice and interpret policy stimuli and

how their prior knowledge, beliefs and experiences shape construction of new understandings and hence the whole implementation process. With such a focus on personal experience and thinking the qualitative-interpretative paradigm was deemed appropriate for this work.

To these broader considerations of research paradigm can be added a personal preference to the choice of an interpretative model to frame the present study. The use of this research paradigm resonates well with my epistemological viewpoint, informed by constructivism, that people hold multiple realities derived from different social contexts (Priestley & Drew, 2017, Walls, 2017). Resultantly, the teachers' sense-making in enacting a new curriculum, as Sharma and Gupta (2016) assert, is best understood from this multiple realities perspective. This epistemological alignment would be further reinforced by experiential knowledge deriving from my over thirty years practice as a teacher and teacher trainer which alerted me to the complexity of everyday teaching and of classrooms as spaces where one could not just enter and easily understand. The need to understand classroom interaction from the perspective of the teacher is paramount. Consequently, the study is not framed on the basis of a positivist-quantitative tradition which tends to produce a mechanistic and reductionist view of reality instead of a multi-dimensional reality of teachers' classroom decision-making and actions attainable when using an interpretative paradigm (Fusch, Fusch & Ness, 2017). With the qualitative-interpretative approach, it is possible to have quality and nuanced attention to the particular and not the general (Palaganas, Sanchez, Molintas & Caricativo 2017).

3.4 Choice of Multiple Case-study Methodology and its Justification

As argued earlier on, a qualitative research model was adopted as the means to control the research situation and focus on this research. Although the interpretative-qualitative paradigm can use a number of methodologies such as ethnography, historical research, action research, *ex-post-facto* research, among others, the case study was chosen as the means to study educational phenomenon of enacting curriculum reform. For this study, a variant of the case study, the multiple case study design was used. There is a need to clearly establish the link between a case study and a multiple case study

(Gustafsson, 2017). A case study can be defined as an investigation of some phenomenon in its real-world context (Yin, 2014; Gustafsson, 2017). Yin further shows that the single case study and the multiple case study are “in reality but two variants of the case study designs” (2014:18). In other words, the multiple case study represents a replication of similar case studies in one research enterprise. Thus, the multiple case study research strategy adopted here entailed studying how four geography teachers enacted learner-centred activities and tasks in their classrooms. Yin (2014) argues that the use of the case study and, *sui generis*, the multiple case study approach is indicated on the basis of three conditions when;

- i) the main study question is either how or why,
- ii) there is little or no control a researcher can exercise over the behavioural events in the study, and,
- iii) the focus is on contemporary rather than historical phenomenon.

All the three conditions are met with respect to the present study. The desire to understand complex social phenomenon necessitated the use of the case study research design as reflected in the main research question: *How do geography teachers enact a learner-centred pedagogy in form 3 and 4 classes as part of implementing the ZCF 2015-2022?* The choice of the case study approach enabled an extensive and ‘in-depth’ description and understanding of the social phenomenon of how geography teachers made sense of the reform requiring them to enact a learner-centred pedagogy. This would give me an idea of why teachers do what they do in their classrooms. This speaks to the case study’s potential to tease out thick, rich and context-heavy portrayals of real people in real situations (Stake, 2000). The adoption of the case study, focusing on the individual teacher, also helped me focus on the case to get a sense of “what it is like” which Cohen, Manion and Morrison (2011) call the “fine grain detail” while retaining a holistic real-world perspective. In the present study, this necessitated the need to study individual teacher behaviour and classroom processes in the light of the learner-centred pedagogy drive.

A case study approach was appropriate since it entailed studying the relevant teacher behaviours in their natural setting without manipulation. A multiple case study research strategy, as argued earlier on, enabled a detailed examination of four specific cases on

how geography teachers enact learner-centred activities and tasks in their classrooms. This is in line with the argument by Cotton who, in a similar classroom teacher-behaviour research, avers that “the case-study approach [is] chosen on the basis of its strong grounding in reality, accessibility to teachers, and the ability to generate a rich, detailed account” (2006: 71). The multiple case study design made it possible to use multiple sources of evidence to build a portrayal of the ways in which teachers made sense of and implemented learner-centred teaching at form 3 and 4 levels.

3.5 Research Design

Apart from meeting the aforementioned three conditions, there is agreement in literature that the case study method succeeds when there is a rigorous methodological plan dedicated to formal and explicit procedures of doing research (Yin, 2014; Braun & Clarke, 2013). This refers to the research design or plan which is “... the logic that links the data to be collected and the conclusions to be drawn to the initial questions of the study” (Yin, 2014:26). In the same vein, Nachmias and Nachmias (1992: 77-78) portray the research design as that which “... guides the investigator in the process of collecting, analysing and interpreting observations. It is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under study”. Such a methodological plan or logical model entails performing the following tasks:

- a) defining the cases or units of analysis to be studied in line with the questions; what issues to study and what data are relevant?
- b) determining what data to collect and how.
- c) outlining what to do with the data with regards to its presentation and analysis, that is, how to analyse the results (Yin, 2014; Gathercole, 2015).

To carry out the multiple case study, the following plan or design encapsulating these three processes was adopted on the advice of Yin (2014) who, however, cautions that for the case study there is little that has been documented on research design. Thus, there was need to craft a plan or design for this study. Below is a diagrammatic representation of the design or logical model of proof (Figure 3.1) that allowed me to draw inferences concerning the causal relations among variables under investigation.

The logic for the adoption of a multiple case study design is that of replication which is analogous to carrying out many experiments on a single phenomenon. Each case must; (i) be carefully selected, (ii) predict similar results (a literal replication), and (iii) predict contrasting results for anticipatable reasons (a theoretical replication) (Yin, 2014). The replication logic which undergirds the present multiple-case design is summarised in Figure 3.1.

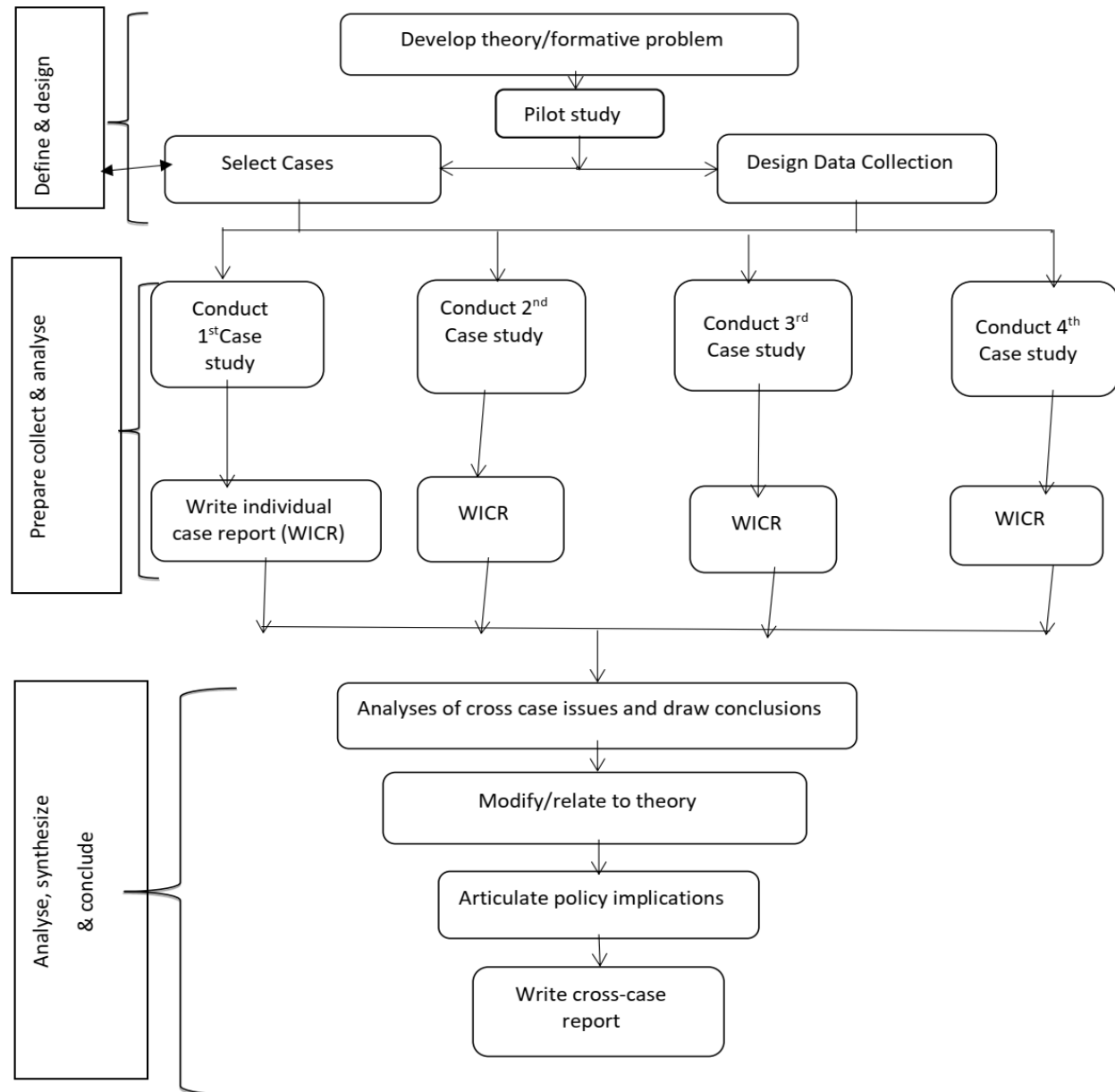


Figure 3.1: **Diagrammatic Representation of the Research Design Used in the Study.** (Adapted from Yin, 2014:60)

As can be seen from Figure 3.1, the three main phases are (i) the definition and design stage, (ii) the data generation and analysis of the individual case (within case analysis), and (iii) the analysis and conclusion based on cross-case comparison. It can be noted that each individual case is a 'standalone' study where convergent evidence from the various data gathering techniques was analysed and reported on. Each individual case's findings fed into the data needing replication or comparison with other individual cases.

The unit of analysis is 'the cases' of the four form 3 and 4 geography teachers. Information from these primary units of analysis pertained to the individual teachers' understanding of the stipulations of the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* on learner-centred teaching, their actual enactment of learner-centred pedagogy and how this departs from established practice. The sequence of events during data generation for each case began with the administration of instruments/instructions on self-reflective journaling and the self-checking learner-centred practices gauge followed by three audio-recorded lesson observations with the teacher participant and the audio-recorded interview coming at the end. The last two processes both occurred concurrently with teacher self-reflective journaling on implementing the new curriculum.

3.6 Position of the Researcher

The researcher seeks to always make known his personal work, beliefs and biases in relation to the *ZCF 2015-2022* reform initiative, the geography learning area and use of learner-centred methods. Following the advice by Stoffels (2005) with regards to area of research, I confined this research to the teaching and learning of geography, an area in which I am professionally and pedagogically familiar having participated in the development of and geography teaching and learning materials such as textbooks, book chapters and design of fieldwork kits. Additionally, most post-colonial or post-1980 innovations in geography have been implemented under my watch as a geography teacher and teacher trainer. In late 2014 and early 2015, I participated in the compilation of stakeholder contributions from baseline research and consultations that culminated in the writing of the *ZCF 2015-2022* document, which guides curriculum provision in the Zimbabwean school system in the seven-year period from 2015 to 2022. Another consideration was that it would be easy to build a rapport with geography teachers which

would engender a nuanced understanding of curriculum innovation implementation sense-making in this learning area. Geography was one area in which it would be easy to connect with study respondents, the form 3 and 4 teachers.

With respect to learner-centred approaches, my epistemological viewpoint leans towards constructivism and the view that people hold multiple realities derived from different social contexts. I am aware that my close involvement with the *ZCF 2015-2022* initiative may blur my views on it. It was therefore important that I am always aware of this close link and let it be known to participants that the research was purely for academic purposes. This self-disclosure assisted me to be as impartial and objective as possible in data gathering and in its interpretation.

3.7 Research Participants and their Selection

Constant reference has been made to teacher participants as the cases in this multiple case study. There is a need to fully describe the choice of the research participants in this study. The main research sites were four form 3 or 4 geography classrooms in four secondary schools which are distributed as follows: two in a large metropolitan area and two in a neighbouring rural district. The choice of form 3 and 4 classes was because at secondary level, forms 1, 3 and 5 classes were the ones studying the new or updated curriculum which was in its first year of implementation in 2017 and which went on to involve forms 2, 4 and 6 in 2018. Form 3 and 4 classes represented the middle secondary level at which teachers would be enacting the policy requirement to adopt a learner-centred pedagogy as encased in the *ZCF 2015-2022*. The choice of schools was through expert or judgmental sampling in that the four selected schools were representative of the major school types in Zimbabwe. Convenience or availability sampling reinforced this choice in that the four mixed-sex secondary schools were accessible to the researcher. The two rural schools were a long-established rural mission boarding school and a post-1980 government rural day secondary school in one rural district.

The urban schools comprised one long-established government high school located in a low density, high income neighbourhood and post-2000 trust or private day secondary

school in a high density, low income neighbourhood. One form 3 or 4 teacher and his or her class participated in the study at each school to give a total of four cases. The choice of teacher participant, where there were more than one form 3 and 4 teachers was, like that of school type, mainly through judgmental sampling. The selection of a case or teacher was purposive and deliberate to provide important information which could not be easily got from other choices. Though the selection of participants through purposive sampling implies a sampling logic, it is important to stress that such selection or sampling in this study was in line with the replication logic which, as earlier argued on the advice of Yin (2014) in **Section 3.5**, undergirds the multiple research design. Such selection of study participants also addressed the issue of bounding which shows and justifies the inclusion of particular cases thereby effectively setting them apart from those who were not involved in the research. The case study and qualitative nature of the research meant that each individual teacher participant and his or her class were an information rich source or case. In the study it became necessary to engage senior officials at the Zimbabwe Schools Examination Council (ZIMSEC) on issues of assessment. This was some kind snowball sampling as it became necessary to get clarification on ZCF 2015-2022 assessment issues which information I initially envisaged to get from the schools.

The study also targeted any one senior member of the Curriculum Development and Technical Services (CDTS) unit. The CDTS unit within MoPSE houses the CDU which entity is responsible for curriculum/syllabi design and development for the school system. For the ZCF process, the CDTS-CDU sections were and are the leading change agent responsible for implementing the new policy. These CDTS personnel together with the three District School Inspectors in whose districts study schools were located and the four school heads of selected four study schools, constituted the accessible and important custodians of new the curriculum policy and its implementation. These officials were targeted for key informant interviewing on the implementation of ZCF 2015-2022. The selection of study participants is closely linked with research ethics and this issue is addressed in the next section.

3.8 Ethical Issues of the Study

Any research enterprise involving, as it does, interaction with either human beings or other species, has the potential to cause unintentional damage. In this context, ethical considerations, which are concerned with the norms for acceptable conduct and the need to respect the rights of participants in research, become an important element of the research process (Opie, 2004). This research pays attention to ethical issues with respect to; negotiating access to research in schools, conducting research involving participant teachers during lessons, conducting interviews with; the aforesaid policy custodians, the school heads and teachers and member checking on findings with the latter group of participants. Put differently, the formulation of the research clearance and permission letters, ethical consent forms, data generation instruments and the conduct of processes germane to the study, were guided by the need to inform all categories of participants on the purpose of the study, the nature of participant involvement, the risks and benefits of that participation, commitment to confidentiality and privacy, the right to withdraw participation at any point in time and the use to which the findings would be put.

Necessary clearance for carrying out the research, by means of an appropriate request letter, was sought from the Ministry of Primary and Secondary Education (MoPSE) head office (Appendix 9) and its relevant subsidiary branches, namely the provincial and district offices (Appendices 11-14). MoPSE is the overall authority in charge of schools. Fortuitously for this study, MoPSE is the lead change agent which developed and is implementing the *ZCF 2015-2022* reform initiative. This therefore expedited the clearance and data generating processes. The data generation commenced when ethical approval from the University of Free State (Appendix 3) had been granted, which approval was contingent upon MoPSE clearance.

Once the ethical clearance was granted, pre-study visits targeting the CDTS-CDU, provincial offices, district offices and schools become possible. Pre-study visits were meant to seek permission and request for consent to participate from CDTS-CDU, Provincial, District and relevant school-level personnel, to carry out the research. The pre-visits were also occasions to explain the purpose of the research, its procedures, its

anticipated value, the nature of participant involvement including choice to participate and the right to withdraw such participation, and inherent risks based on the minimal risk principle to potential research participants. The confidentiality position, which was spelt out, is that the data gathered in the study would be used for purposes of this research only and would be safely kept until it is destroyed after a period of three to five years. In all requests for clearance or permission or consent, at whatever level, it was stressed that the names of officials, schools, participating teachers and their classes would be kept confidential, and only pseudonyms were to be used. Thus for CDTs-CDU and ZIMSEC based interviews the study refers to senior officials without identifying the actual position as this would identify the official.

A further proviso was that feedback would be availed to teacher participants in the form draft reports on findings so that they, as part of the process of member checking, could authenticate the researcher's explanations and claims. Thus, the invitation to policy custodians and teachers, as local actors in reform enactment, to participate in the research was on the basis of informed consent and the right to confidentiality and privacy. All this reference to ethical considerations taken into account before, during and after the research, begs the question of a detailed description of the data generation techniques used since through them, human interactions and hence ethical issues arise in research. It is to this aspect that the following section focuses, with the data generation techniques presented more or less in the chronological order of execution for the participant policy custodians and teachers.

3.9 Data generation Techniques

To address the research questions guiding this multiple case study, a number of data generation methods or techniques were used. These were: (i) participant teacher self-reflective journaling (Appendix 12), (ii) simulated lesson vignette (Appendix 13), (iii) learner-centred practices gauge (Appendix 14), (iv) lesson observation (Appendix 15), (v) participant teacher and (vi) lower-level policy custodian and interviews (Appendices 5 and 6 respectively) and (vii) document study (Appendix 18). Since case studies are critical to understanding social phenomena, observation and interview methods were the most amenable qualitative methods to use. These two techniques are closely

associated with ethnographic research (Spradley, as cited in Tabulawa, 1998). Teacher reflective journaling, observation and interview methods, were accompanied by document analysis. Through the use of multiple data gathering techniques, the research gained an understanding of the ways geography teachers made sense of their settings and actions in the current shift from teacher-centred to learner-centred pedagogies. A multiplicity of data generation techniques was the occasion to look into the classroom 'black box' from as many angles as possible thereby eschewing a narrow tunnel vision of how teachers enacted the learner-centred teaching requirement.

3.9.1 Pilot study

In this research, a pilot study was undertaken as a small trial-test version of the intended fully fledged study (van Teijlingen & Hundley, 2002). The pilot study had a twofold purpose of; firstly, pretesting initially developed research instruments or measures for adequacy and possible improvements for their eventual use and, secondly, as a mini or trial-run version of the study meant to gauge the feasibility of carrying out the main research. In addition, prior to piloting the draft instruments in the field, the conceptualisation and design of the instruments benefited from scrutiny and useful comments from a number of colleagues who are in the teaching field. This served as a useful refinement of research tools. In this regard, it can be seen that the pilot study, as an important part of a research design or plan, fine-tuned the instruments and procedures of doing the research.

Initially, the data generation instruments or protocols were designed on the basis of the researcher's experiences and issues given in literature as making up the concepts or constructs to be studied. For this study, such concepts or constructs were issues surrounding how teachers make sense of their settings and actions as they implemented learner-centred pedagogy in their geography classes in response to external policy directives. The resultant 'desk-developed' tools or measures had face validity which is the degree to the instruments appear to measure the concept or construct under study (McMillan & Schumacher, 2014). This ability of a research tool to measure and yield data that corresponds to what it is supposed to measure is termed instrumental or construct validity (McMillan & Schumacher, 2014).

To increase construct validity of the ‘theoretically’ designed research tools with only face validity, there was need to trial-test them by administering them to a geography teacher and classroom at an archetypal school in Zimbabwe. Such a school was an average-type one similar to the targeted four schools in this multiple case study. The reason for piloting the research tools was to make revisions to their structure, content, appropriateness, truthfulness, clarity, complexity and ease-of-use, among others, of their qualities. The pilot information enabled improvements and adjustments towards a correct alignment between an instrument’s content and the envisaged concept/s or construct/s being studied on how geography teachers make sense of their settings and actions when operating under the policy requirement to use learner-centred pedagogy in their form 3 and 4 geography classes. An example of the teacher interview schedule (Appendix 16) brings this out. The pilot study alerted the researcher to the possible lack of time for fully fledged interviews with teacher respondents given their heavy teaching loads and that most were, in the initial stages of the research, grappling with the Continuous Assessment Tasks which were a requirement of the new curriculum. The interview items on teacher perspectives on the new curriculum, in many instances, were asked on a more or less informal basis as this, at times, had to be done during break or on the way home. So, the research had to rely on main question-points rather than the formal order of questions as set out in the interview schedule. In this way the pilot study ensured that the studied cases and research techniques were plausible and effective thereby enhancing the internal validity of research tools.

Further to pretesting research instruments or measures for adequacy and possible improvement, an important function of piloting in the present study was to undertake a mini study for assessing the feasibility of carrying out the main research. Such a feasibility test of the research process was vital with respect to a number of actions and issues. Firstly, the pilot study was the basis for improving the procedures of carrying out the research by identifying and ironing out logistical problems. In this study the sequencing and timing of events such as the administration and distribution of the learner-centred practices gauge or checklist, self-reflective journaling guides and teaching scenario-based vignette stimulus material on the one hand, and the submission of associated written self-journal responses on the other, were informed by information

from the pilot study. The pilot study affirmed the need to administer the first four measures at the beginning of the study. Secondly, piloting as the basis for noting the time taken to administer or perform the various research tasks like interviewing, return of written responses by participant teachers, transcribing of recorded lessons and interviews, made it possible to make the necessary adjustments before the main study. In this regard, it was possible to identify potential practical glitches of executing and following the research plan and procedures. Another important function of the pilot study was to allow input from participants on any aspect of the research such as research tools and their accuracy, clarity and reliability, ethical concerns on the approaches adopted, and whether the data generated through various data generation techniques could be interpreted in line with information required in the study.

The pilot study proved to be an empowering process to the researcher with respect to enhancing skills for executing the main research. The pilot study provided training and practising ground for sharpening researcher skills and competences such as requesting consent from participants, conducting interviews, developing a scheme for coding and content analysis of audio-recorded lesson transcriptions and general data analysis. Having observed and made transcriptions of two audio-taped geography lessons, it was possible to develop a preliminary scheme of coding for analysing lesson transactions. By combing through the dummy or pilot transcriptions and relating the lesson transactions to literature derived learner-centred pedagogy attributes, it was possible to develop a preliminary coding scheme. The interaction attributes were gleaned from relevant literature on content analysis of classroom interactions and formulation of a coding scheme (Artz & Thomas-Armour, 2002, Ribeiro & Camillo 2012, Schoenfeld, 2013). The pilot-test developed or refined the coding scheme based on identified learner-centred pedagogy (LCP) attributes embedded in the general structuring of the lesson and lesson transactions. It became possible to develop codes from identified themes.

The pilot study was thus the basis for coming up with five main interactions attributes for content analysis of lesson transcripts in the study. These attributes pertain to; (i) teacher classroom actions, (ii) learner classroom actions, (iii) classroom communication

or discourse structures, (iv) teacher-learner power relations, and (vi) resources or learning support materials (LSM) used. For each main category it was possible to identify constitutive sub-categories. Refer to **Section 3.11.2** on coding and its application on text data in Table 3.2 and Figure 3.3 respectively. In this way the pilot study proved valuable for both data gathering and data analysis. This is more so in this study where I was, to all intents and purposes, a novice researcher who needed prior practice in pre-research formalities, the use of various data generation techniques and analysis of textual material.

By analysing the pilot data, the researcher narrowed the spectrum of issues to be researched especially through interviews which were guided by issues raised from preceding lesson observations and time constraints on the ground in schools. In so doing the study's focus and internal validity was, respectively, sharpened and strengthened. With pilot study findings, it was possible to assess the wished-for data analysis techniques to iron out potential problems in this research activity and take corrective action. With respect to the analysis of pilot data, it should be stressed that these pilot study data were excluded from the results of the main study.

In the light of the many possible improvements to a study consequent upon undertaking a pilot study first, it was potentially possible to document improvements made to the study design and the research process in the research report. In the case of a multiple case study, such documentation is a constitutive part to making up of a study protocol, which is the basis for possible replication of the study case, as advised by Yin (2014). This increases the reliability of the study and research instruments as the coverage on reliability (**Section 3.10.3**) brings out.

Despite the many benefits which piloting bestowed to this research, as reported in the foregoing paragraphs, the pilot study undertaken for this study had a number of constraints. The piloting at one school type, though taken to be an archetypal representation of the schools in Zimbabwe, did not anticipate all the contextual variations at the four schools targeted for the main study. It should also be stressed that, although pilot studies are an important attribute of a good study design, engaging in one

is no guarantee of success in the main study. The pilot study only increases the likelihood of success which is a hoped-for outcome here.

3.9.2 Self-checking instruments

Three self-checking instruments were administered to participant teachers namely; self-reflective journaling (Appendix 12), learner-centred instructional practices gauge (Appendix 14), and teaching scenario-based vignette (Appendix 13) Through reflective journaling, as explained earlier on in chapter one, **Section 1.7.1**, each teacher was asked to reflect in writing on his or her experiences in implementing the new curriculum with particular reference to the use of a learner-centred pedagogy. The product of such self-reflective journaling (Ortlipp, 2008) was to be a narrative account of the teacher's experiences as suggested by Yung and Benny (2006). The journal write-ups were guided by *Appendix 12: A Guide on teacher self-reflective journal writing*. The guide solicited responses from a threefold focus, namely; a structured question or retrospective reflection on teacher experiences around the time of introducing the *ZCF 2015-2022* at the beginning of 2017, structured reflection on on-going practices and unstructured reflection on learner-centred teaching for any three teacher-chosen and taught lessons. The use of self-journals were, following example of Chikoko, Naicker, & Mthiyane (2012:327) writing the role of portfolios in school leadership change studies, a chance for “reflectivity and reflexivity [which] are important competencies in leadership learning” as well as sense-making learner-centred teaching. Reflective journaling continued throughout the course of the data generation phase (from October 2017 to mid-April, 2018) and could, additionally, involve teachers responding to some identified issue. Teachers were also free to comment on aspects they considered germane to the enactment of the *ZCF 2015-2022*. In the initial stages of the research, but at most convenient times, as part of this data generation process, teachers were to respond in writing to two related data gathering methods. Overall, the reflective journal methodology solicited teachers' own constructions of their personal and professional realities. Reflective journaling was potentially a sensitive measure of teacher beliefs and practices with respect to the policy requirement to adopt learner-centred instruction for teaching all subjects and learning areas.

In the early stages of the research, participant teachers were also requested to complete a simple checklist, the *Learner-centred instructional practices gauge* (see *Appendix 13*). The layout and content of the checklist, an adaptation of the *Am I an Enquiry Teacher?* Checklist reported in the *Project News* of British Schools Council Curriculum Development Project: Geography 16-19 of July 1980, was aligned to the requirements of the research. In addition, attributes of learner-centred teaching, as reviewed in **Section 2.13** of this thesis, were a source of common learner-centred teaching behaviours included in the checklist. Though rudimentary in nature, the checklist was, however, considered an acceptable and empirically proven scientific scoring system to measure how the responding teacher fared as a learner-centred teacher. The instruction on how to calculate and interpret one's total score is given in italicised font on *Appendix 14*. It is important to note that this instruction was however removed from the gauge checklist administered to teacher respondents in order to eliminate its possible influence on the teacher's choices. With the frequency of checklist entries on specified learner-centred teacher behaviours, it became possible to calculate the score or extent, as explained in the key provided, to which classroom teacher practices approximated learner-centred pedagogy in geography. The interpretation of attained scores is given in Figure 3.2 as extracted from *Appendix 14*. In summary, the qualitative description to specific score ranges, as given in the publication, *Teaching Geography*: July Issue 1980 were as follows:

65-80: This means the teacher is a learner-centred instructor who consciously uses ways to promote learner-centred learning and enquiry. The teacher is aware of the need to maintain a learner-centred teaching learning environment in his or her classroom.

45-64: The teacher knows the value of learner-centred teaching and utilises it where and when appropriate issues and materials are available. Be on the watch out for learner-centred teaching opportunities so as to use them with learners.

35-44: All is not lost. Need to keep at it even harder. It would eventually pay off.

Less than 34

Ugh! There is always a beginning!

Figure 3.2: Qualitative Description of Self-checking Learner-centred Instructional Practices Gauge Scores.

It was possible to then cross-check the qualitative score-description against other qualitative data from other research techniques like interviews and observation. This assisted in characterising the enactment of the *ZCF* learner-centred teaching reform initiative by the targeted geography teachers.

As part of data generation under this genre of techniques, the teachers were to react to two hypothetical scenarios on teaching and learning approaches. Responding to a hypothetical situation represents the technique of using a *teaching scenario vignette* (Braun & Clarke, 2013) which Nott and Smith (1995) call *an incident vignette*. As De Jong (2010) explains, the teaching scenario vignette requires teachers to respond to the depicted teaching-learning incidents generally in comparison to their own practices, with respect to similarities, differences and possibilities. The vignette technique in this study required teacher participants to respond to two hypothetical geography teaching-learning scenarios set out on a customised and adapted stimulus document (*Appendix 13: Vignette for form 3 and 4 teachers on approaches in teaching geography*). In responding to the scenarios, the teachers would write on their typical or in-use teaching style and their perceptions on learner-centred pedagogy.

Overall, the reflective journal methodology together with the resultant vignette account and *Learner-centred instructional practices gauge* were meant to solicit teachers' own constructions of their personal and professional realities. This genre of data generating tools was meant to tease out teacher beliefs and practices with respect to the policy requirement to adopt learner-centred instruction in teaching.

3.9.3 Lesson observations

The research utilised a phased approach to lesson observation and interviewing for each teacher studied. The first phase of three audio recorded lesson observations was afterwards followed by a post-lesson-observation interview. Both the audiotaped lessons and interviews were also documented through researcher 'field notes' using a *Lesson observation guide* (Appendix 15) and an *Interview Schedule* (Appendix 16). The recorded lesson was transcribed to allow an analysis of the classroom transactions together with entries made through the use of the *Lesson observation guide*.

The lesson observation guide contained some thirty-two possible learner-centred classroom practices identified from relevant literature. These practices were thus *a priori* categories on learner-centred pedagogy (LCP). For each practice, the researcher ascertained whether or not it was part of the observed lesson or classroom transactions. If present, there was a need to further assess its contribution to or impact on learner-centredness of the lesson. The foci of some of learner-centred classroom practices overlapped. This allowed for content triangulation within the lesson observation guide. In addition, four general questions to capture the broad assessment of the use of a learner-centred pedagogy were part of this observation guide.

The observation technique was preferred for its potential to illuminate on learner and teacher actions. Oftentimes classroom events and interactions have been likened to an aeroplane's black box which gives detailed records of its flight history (Bruns, 2013; Cuban, 2013). In like manner to aeroplane black boxes, within classrooms is embedded contextual data of the intricate goings-on of this particular social setting. Consequently, classroom lesson observations provided a relevant emic approach in which classroom social transactions and interactions could be accessed from within and studied. These observations were a basis for inferences leading to a tentative characterisation of the teacher's cognitions about enacting learner-centred pedagogy on the basis of only the observed instructional episodes.

The use of observation was premised on the thinking that it would be difficult for teachers to verbally identify and characterise their habitual in-class behaviours. Lesson observations became the basis for understanding the decision-making processes and frame factors that guided the teachers' implementation of the new geography curriculum. The observation protocol focused on issues such as overall teaching approaches like; group work, individual work, fieldwork and lecture method. Additionally, the teacher's role as initiator and facilitator of learning was an important aspect on the observation schedule. A caveat on the potency of lesson observation as a basis for an emic understanding of teacher and learner classroom actions is needed. The problem of an artificial classroom set-up resulting from having to make prior appointment to observe lessons could not be ruled out. To forestall such possible confounding effects,

especially on the part of the participating teacher, I sought to have some flexibility on when to observe the lessons. The first observation would be in specified appointed time. However, I then negotiated with the class teachers, through the school head, to make the second and third visits at 'any time' indicated on the timetable, with no prior specific warning of date and time for the observation. Here I chose when to visit on any timetabled lesson but without specifying the day or time. Another constraint on the authenticity of observed classroom transactions is the possible learner behaviour modification in response to their awareness of being observed. This limitation is the classical *Hawthorne effect* or *observer effect* which has a confounding effect on the behaviour of those being observed. Be that as it may, the post-lesson observation interview session interrogated such confounding effects if they were deemed to have occurred during the lesson observations. As indicated earlier, the third round of lesson observations was then followed by audio-taped semi-structured interviews.

3.9.4 Semi-structured interviews

Teacher participant interviews were built around the classroom audio-recorded lesson observations and on more general questions on teaching-learning approaches. Refer to *Appendix 16: Interview Guide with teacher participants*. Data from the pre-interview lesson observations together with data from self-checking related instruments, all contributed to the issues raised in the interviews. This post-observation interview acted as some kind of stimulated recall (Calderhead, 1981; Woods, 1996) which allowed teacher participants to have an nuanced account of their teaching which was intended to touch on any learner-centred and/or teacher-centred practices and "the causative decision-making processes, as well as the feelings and frame factors they experienced during the lesson" (Stoffels, 2004:65).

The introductory part of the interview guide was meant to capture the participant teacher's biographical information on; professional qualifications, their experience and teaching subjects. This was on the advice from literature that teachers' classroom practices often reflect their personal and teaching identities (Drake *et al.*, 2001; Kennedy, 2004). By building on classroom observations and other data gathering processes, the content of the semi-structured interviews items, as reflected in the pre-prepared Interview guide with teacher participants (Appendix 16), was to be fully

developed as the research progressed. Such an approach imputed an adaptive and iterative attribute to the research activities and methods in the light of research contextual and procedural issues. Thus, the use of lesson observation and teacher interview guides with predetermined foci or categories permitted comment on other processes that were considered important and which cropped up during these data generation processes. This was more so for the interview which was mainly guided by observed classroom transactions.

The data gathering processes preceding the interview and the resultant data created a needed constraining context militating against a commonly reported weakness of interviewees. This is the issue of interviewees being over-stimulated in the presence of the interviewer thereby ending up giving imaginary information. In cross-checking the accuracy of earlier observations and inferences, interviews solicited authentic data on teachers' understanding and views on the learner-centred approach and its implementation. Grounding part of the interviews in shared classroom episodes and other preceding data generation processes made it possible to discuss the contextualised reality of learner-centred teaching and learning to the exclusion of teacher held ideals. Consequently, a deeper understanding of their teaching approaches, including learner-centred pedagogy was possible. It was thus possible for the researcher to utilise a 'theory-in-use' approach rather than an 'espoused theory' approach as advised by Argyris and Schön (1974), and Cotton (2006: 71). Though there were possibilities of distortions and the inclination by teachers to what Lampert (1986: 72) terms "post-hoc rationalisation" of their actions in the observed lesson, this weakness was considered a lighter failing than the likely distortions from 'espoused theory' if the interview had preceded the lesson observations.

The other interview guide used in the study is that for policy guardians namely; the CDTs Director, the District Education officer and the school head. These middle and lower level officials were the policy custodians and implementers of the new curriculum policy, the *ZCF 2015-2022* and its associated curricular documents and syllabi. The interview solicited information that enabled a portrayal of the correct policy context in which the

ZCF 2015-2022 reform was being implemented generally, and in which geography was being taught at form 3 and 4 particularly.

3.9.5 Document study

Document study targeted the ZCF 2015-2022 education documents and policies, curriculum documents such as the geography syllabus and learning materials produced for the competence-based curriculum and MoPSE media releases and other publications by concerned stakeholders. In all some 12 documents were scrutinised. Document study was an on-going process throughout the data gathering process though it intensified with time and as requisite documents become available. Using a *Document analysis guide for learner-centred pedagogy for middle secondary geography* (Appendix 18), it was possible to tease out relevant principles and foci on the reflective and active nature of teaching and learning which are the hallmarks of learner-centred instruction. Through the study of documents, it was possible to characterise the policy and pedagogical milieu in which the ZCF 2015-2022 reform was being enacted.

3.9.6 Data generation techniques versus research questions analysis grid

The main four data generation techniques involving observation of geography lessons, interviews with geography teachers and with policy custodians, reflective journaling/narratives including vignettes by practising teachers and documentary study are shown in Table 3.1 which highlights the relationship between research questions and the methods used in soliciting data to address them. It was thus possible to utilise convergent evidence from the various data gathering techniques in each of the four cases consisting of the participant teacher, his or her form 3 or 4 geography class and associated school milieu. This enabled the realisation of the 'replication logic' (Yin, 2014) which undergirds the multiple case-study research design.

Table 3.1: Relationship between Research Question, Purpose, Data required and Data generation Method

Research sub-question	Purpose of research	Data needed and the method of data generation
What are the <i>ZCF 2015-2022</i> policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?	Understanding the policy and other contextual influences in which participants act, and how this influences their actions.	Information on new <i>ZCF 2015-2022</i> policy. Document analysis of flagship documents like <i>ZCF 2015-2022</i> document, official ministerial <i>ZCF</i> launch statement, policy circulars, geography syllabus document etc. Policy custodians' interview on the implementation of the new curriculum.
How do geography teachers understand the <i>ZCF 2015-2022</i> instructional requirement to use learner-centred approaches in the teaching and learning of geography at form 3 and 4 levels?	Existing understanding and meanings teachers have of the new instructional policy.	Geography teachers' understanding and views on geography teaching including learner-centred teaching. Responses to self-checking instruments as self-reflective journal entries, vignettes and initial interview responses.
How do geography teachers enact learner-centred instructional approaches in geography lessons as part of implementing the <i>ZCF 2015-2022</i> at middle secondary level?	Teachers' enactment and sense-making of the <i>ZCF 2015-2022</i> related instructional processes, events, actions, situations, and accounts of lives and experiences.	Information on how geography teaching and learning occurs. Observation of geography classes, with focus on learner-centred approaches as teachers 'implement' the <i>ZCF 2015-2022</i> policy reform. Teacher interviews, teacher reflective journaling/narratives and vignettes documenting teacher experiences.
In what ways can teachers' understandings and practices be explained and understood in the context of the need to implement <i>ZCF 2015-2022</i> proposed learner-centred teaching and learning approaches?	Develop and or confirm theory or causal explanations, generating new explanations of experiences or processes which are evident in the raw data. Use explanatory cannons related to theoretical framework to explain findings, unanticipated phenomena and influences.	Findings vis-à-vis extant literature. Analytic generalisation/Inductive analysis? The cognitive framework/ the ways that social context and social interaction affect sense-making. Applying to study findings

3.10 Validity and Reliability Issues

The criteria for judging the quality of this study's multiple case study design and possible outcomes relate to validity and reliability issues (Yin, 2014). Validity is concerned with whether the research actually shows the things it claims to show whereas reliability refers to the extent to which the findings of a study could be generated again (Braun & Clarke, 2013). Although there are many forms of validity, for this study internal and external validity of the study are highlighted. The use of qualitative research aligned methods and instruments, such as lesson observation, interviews, self-reflective journals and document analysis, made it possible to generate knowledge and subjective information to permit inductive inferences. The four methods made it possible to use multiple sources of evidence thereby enabling what Tabulawa (1998) calls triangulation of how teachers understand and enact a learner-centred pedagogy. The research design and the instruments employed provided an acceptable degree of validity and reliability as argued in the following sections.

3.10.1 Internal validity (Credibility/Authenticity)

Internal validity or credibility or authenticity, in the qualitative tradition, refers to the strength of the cause-effect links or causal relationships made in the study. This research is an explanatory multiple case study. It seeks to unpack the causal situation of how and why geography teachers enact the new curriculum policy requirement of learner-centred pedagogy in their form 3 or 4 classrooms in the way they do. Internal validity is concerned with making correct inferences. In this study, the sequenced use of; reflective journaling which included use of self-reports, a learner-centred instructional practices gauge checklist and vignettes, observations, teacher interviews and documentary analysis made it possible for researcher to infer on teachers' understanding and sense-making in the implementation of a learner-centred pedagogy. It was thus possible to use convergent evidence from these multiple sources or data generation techniques to arrive at possible correct inferences which also address rival explanations and possibilities.

A further provision for validating research findings was the incorporation of member checking. In this study member checking entailed cross checking the research's draft reports and conclusions with participant teachers and policy custodians to make sure

that they reflected their experiences and ideas as captured through the various data gathering techniques. Going back to teacher respondents with draft reports helped me elaborate, refine, and at times discard some of my impressions of what transpired in the lesson observations and interviews. In this way a clearer portrayal of teacher perceptions and understandings in implementing a learner-centred pedagogy would be possible. In attending to these issues surrounding the problem of making inferences, it can be argued that the research would achieve a modicum of internal validity thereby enhancing the ability to make correct inferences on how geography teachers enact a learner-centred pedagogy in form 3 or 4 classes as part of implementing the *ZCF 2015-2022*.

3.10.2 External validity or Transferability

External validity pertains to whether the findings of a study are transferable or generalizable beyond the immediate study. In the qualitative tradition, the term transferability is used, while the term generalizability is preferred in the quantitative tradition. In the context of the present multiple case study, external validity relates to the extent to which its findings on how the four form 3 or 4 geography teachers made sense and enacted a learner-centred pedagogy was or are analytically, and not statistically, possibly generalizable to other Zimbabwean geography teachers and classrooms who were not participants in the study. In adopting what Yin (2014) calls an analytical generalisation logic, it became possible to characterise and explain individual teacher sense-making in the light of the *ZCF 2015-2022* which would be the springboard for understanding general teacher sense-making of the new curriculum policy in Zimbabwe. Such transferability has implications for this study's significance as set out in **Section 1.10** and discussed in Chapter 6, **Section 6.7**. According to Cohen *et al.* (2011), case studies are faulted, especially in positivist circles, for being weak on external validity so that, resultantly, they cannot offer sufficient insights into the solution of generic education problems. This argument does not detract on the thrust of this study; which is not to find generalizable answers or "*grandes généralisations*" (Stake, 2006) to curriculum change problems. The study sought to deepen understanding and insight of a bounded phenomenon, that is, the local actor's sense-making and enactment of an externally initiated learner-centred pedagogy innovation in geography

by the four teacher participants in this study. In this multiple case study the utilisation of rigorous data generation and analysis procedures enhanced the transferability of the findings to similar situations.

3.10.3 Reliability or dependability

A research is reliable in its operations such as the design, instrumentation and data generation processes if later studies following its procedures arrive at similar findings and conclusions. For a case study, the subsequent research entails doing the same case over again by following the same procedures as described in an earlier study and coming out with similar findings and conclusions. Since reliability seeks to limit the biases and errors in a study, this becomes possible through proper documentation of an earlier case study's procedures. Proper documentation of case study procedures, which is the *conditio sine qua non* for possible repetition or redoing a multiple case study such as this one, was attended to in the present study in two ways. Firstly, the study utilised a case study protocol which, according to Yin (2014), involves the procedural framework or guide for data generation in a case study. The description of the data generation plan given earlier and represented in **Figure 3.1**, the identification, with the aid of piloting, of focus issues or questions in the multiple data generation techniques used, namely self-reporting instruments, classroom observations, teacher-participant and policy custodian interviews and document analysis, all go a long way in constituting the case study protocol which enhances the research's reliability. In addition, and on the advice from prevailing literature (Yin, 2014), the study, as part of its contribution to academia, seeks to develop a case study which can act as a reference source for subsequent case studies in the area of teacher sense-making when enacting instructional policy. Furthermore, it is posited that detailed documentation and operationalisation of the main phases of the study would enhance reliability in a manner analogous to how an accountant's records guide the auditors of his or her work.

3.11 Data Analysis

Data in this study were derived from multiple sources, namely self-reflective journaling, scenario-based vignettes, a learner-centred practices gauge checklist, lesson observations, interviews and documentary analysis. On the advice of Stoffels (2004)

and Hatch (2002), it was necessary to adopt an ongoing iterative and recursive approach in data gathering and analysis. The study was open to any emerging themes which could frame subsequent data generation and the possible use of as yet unimplemented methods. In a multiple case study, such as the present study, each individual case is a 'standalone' study where the intra-case (within case - reported in **Chapter 4**) findings feed into composite data that include all individual case (cross-case – reported in **Chapter 5**) findings. The procedure adopted in this study to analyse each case separately follows the exhortation by Patton (2001: 449) that "... the analyst's first and foremost responsibility consists of doing justice to each individual case. All else depends on that."

3.11.1 Content analysis

The data generated for each case was subjected to a systematic content analysis *vis-à-vis* the research objectives. There is need to explain what content analysis entails in the context of this work. Content analysis as a systematic examination of inherent meanings and patterns on some text has to be performed on either written or verbal data. In this study such text data or narrative accounts on the teaching of the new curriculum were produced mainly through transcribed audio-recorded and observed lessons. Other texts were from teacher self-reflective journaling, scenario-based vignette accounts and teacher participant interviews. A smooth verbatim or word-for-word transcription, as suggested by Mayring (2014), was used audio-recorded and observed lessons. The text data generated particularly through transcribed audio-recorded lessons and interviews were subjected to content analysis meant to provide an understanding of how teacher participants transacted learner-centred lessons as well as made sense and meaning of learner-centred teaching in executing the new curriculum. Text data from teacher self-reflective journaling and scenario-based vignette were occasions for them to "... make sense of their world most effectively by telling stories" (Riessman 2000:5). Through self-reflective journaling participant teachers wrote accounts or narratives of their experiences in using learner-centred pedagogy as they implemented the new or updated curriculum.

Thus with these text data it became possible to perform narrative analysis or content analysis. The units of analysis where the individual teacher participant's texts which

examined the meanings and issues that the teacher highlighted with respect to teaching the new geography syllabus. The research takes on board the point made by Elo and Kygnas (2008:1) that “[c]ontent analysis is a method that may be used with either qualitative or quantitative data and in an inductive or deductive way.” For data generated with the use of the learner-centred practices gauge checklist, lesson observation guide and the document study guide, a guided or directed content analysis (Freeman & Richards, 1996) using a deductive approach (Elo & Kygnas, 2008) was employed. This is because these instruments were conceptualised on the basis of *a priori* dimensions or categories of learner-centred teaching and learning and local actor sense-making synthesised from extant literature on the sense-making cognitive framework, curriculum implementation perspectives and learner-centred pedagogy. It is important to note that these prior categories served as initial and flexible guides to the unfolding analysis. An inductive analysis approach was adopted for data generated through self-reflective journaling, scenario-based vignettes, lesson transcripts, teacher interviews and document study.

The content analysis, whether based on *a priori* or emerging categories, is essentially similar as it involves coding the data by grouping it into categories or themes while noting recurring patterns with regard to how each teacher taught, understood and made sense of the ZCF 2015-2022 related learner-centred teaching-learning methods. Given the broad similarity between guided or deductive content analysis and inductive content analysis, a description of the latter is given here to illustrate the systematic examination of data in this research. A first consideration is that content analysis should be related to the relevant specific study objectives (Thomas, 2003). The inductive approach, as should also be the guided analysis, allows the identification of recurrent and dominant themes embedded in the raw data. Data whose information were similar, like having similar approaches to instruction, were taken as constituting dominant categories or themes. In this regard, a narrative analysis or thematic analysis of observed lesson transcriptions and interviews, reflective journal data, vignette submissions and document study data was performed using *a priori* categories from literature and any emerging the categories from the data. To these data should be added that of entries and field notes compiled as part of lesson observations and teacher participant

interviews since they constitute texts liable to the narrative and content analyses to identify all the emerging themes from them. The data sources were to be analysed independently of one another and also for similarities and differences in the within-case analysis. It was possible from such an analysis to understand the connections across data sources within the case. The ensuing section describes the identification of categories and development of a coding scheme mainly through pilot-test data. The section also illustrates how such a scheme was applied to a pilot dummy of an observed and audio-taped lesson transcript.

3.11.2 Coding and analysis of text data

The observed lesson transcripts, lesson observation entries or notes and post-observation teacher interview transcripts were the main sources of data for unpacking teacher-held cognitions on teaching-learning transactions. In the context of this study, such cognitions are the understandings and meanings which form 3 and 4 geography teachers held with respect to how and why they taught their geography classes in the manner they did. Put differently, cognitive sense-making relates to teacher beliefs, knowledge and goals that informed their geography classroom practices as captured mainly through lesson observation and interview transcripts. The lesson observation and related transcript texts were categorised into main themes of how they taught the lessons. The categories used in organising the lesson transcripts and interview texts were twofold namely; *a priori* from extant literature and emergent ones from collected data. These were developed initially using pilot dummy lesson transcripts but were later refined iteratively. Literature suggests five basic *albeit* interrelated classroom interaction attributes namely : i) teacher classroom actions; ii) learner classroom actions; iii) classroom communication or discourse structures; (iv) teacher-learner power relations; and, (v) resources or learning support materials (LSM) used (Blanton, Berenson & Norwood, 2001; Artz & Thomas-Armour, 2002; Ribeiro & Camillo 2012; Schoenfeld, 2013). The resultant scheme of categories and sub-categories and the corresponding labels or codes is set out in Table 3.2.

Table 3.2: Coding Scheme Categories and Sub-categories for Classroom Interaction.

Major category and its coding	Sub-categories and their coding with major learner-centred pedagogy concepts, discourse structures and forms of learner involvement in bold ink
1) Teacher classroom actions (TA)	Teacher gives high-level thinking tasks –TAht Teacher provides feedback –TAfb Teacher fosters of learner autonomy –TAla Teacher treats learners as equals – TAle Teacher affords learners ownership of learning process – TAlo Teacher dominates classroom activities –TAcA Teacher revoices (repeats) learners' answers - TAre
2)Learner classroom actions (LA)	Learners have role in steering learning process - LAIs Learners given chance to question/reflect on learning - LAqr Learners engage in dialectic/discussions - LAd Learners learn from peers – LAIp Access: Teacher relates and connects student ideas to greater learner autonomy in learning - LAat Accountability: Teacher expectation of learners to participate, contribute and demonstrate leadership, high geography standards and finding solutions - LAac Productivity: Learner interest in learning, construct geographical knowledge i.e. generate, explain, challenge, evaluate ideas, seek multiple solutions to problem - LAprd
3)Classroom communication or discourse structures (CS)	Dominant teacher talk – CStt Dominant teacher-learner flow/exchange or univocal communication - (CS tlf) Interactive/contributive dialogue Meaningful exchanges or active learner participation created. Teacher dialogues with class, contributively questions, clarifies and validates learners' ideas. Suitable for revision – (CS II/ltf) Teacher relies on instructional questions [univocal communication] – TAuniv/CStlf/ or Incremental routine question-and-answer approach -TAlrqa Teacher repeats/highlights learner contributions- [Revoicing] - CStr
4) Teacher-learner power relations (PR)	Authority distributed equally/ equal power relations/ community of geography practitioners - ePR Authority skewed in favour of teacher/ unequal power distribution e.g. on knowledge, existing and new ideas, approval, etc. between learners and teacher - uPR
5) Learning resources or learning support materials used (LR)	Effective and varied use of media, LSM – LRe Integration of ICTs in learning process – LRicts Multi-media and authentic media used – LRmm

Lesson and interview transcripts or texts were the main narratives to which these codes were applied. Other texts included fieldwork data, participant teacher self-reflective journals and teacher scenario-based vignettes. Coding made it easy to ascribe learner-centred labels or other labels to classroom transactions. Such coding in turn enabled the researcher to characterise a particular teacher participant's teaching vis-à-vis the main research purpose of how teachers enacted the learner-centred policy requirement in their geography classrooms. The sub-categories were framed from literature and were also emergent from analysed data texts. Generation of such emergent sub-categories freed the data analysis process of the restrictions imposed by structured data gathering instruments. The emergent categories related to teaching-learning transactions such strengths, difficulties during implementation and other observed effects or patterns and thereby complemented and reinforced the *a priori* main categories. Figure 3.1 is an example of a coded lesson using the coding scheme in Table 3.2, both of which were developed as a result of the initial pilot study activities.

1. **Teacher (Tr):** Right today we want to talk about mining. So, who can give us a definition for mining? What is mining? Yes?
2. **Student (Stdnt):** Mining is the extraction of minerals from the earth.
3. **Tr:** So we are saying it is the extraction of minerals from earth. What are these minerals that are extracted from earth? Can you give me examples of minerals that we extract from earth?
4. **Stdnt:** Gold
5. **Tr:** Yes gold
6. **Stdnt:** Copper
7. **Tr:** Yes copper
8. **Stdnt:** Chrome
9. **Tr:** Chrome. Yes
10. **Stdnt:** Diamonds
11. **Tr:** Diamonds yes So when we are talking of mining we are referring to the extraction of these precious... we call these precious metals and we use these precious metals for different purposes. Right! Let's talk about the contribution of mining to the economy. In other words we are saying what are the advantages of mining to the economy? ... Why would you want to mine these minerals? How employment is created in mining, these are jobs. **(Tr uses rhetorical questions targeted at variety of levels-TAlrqa technique)** Isn't it? Give me various jobs that are created in mining. **(Line 11- dominant teacher talk – TAtt)**
12. **Stdnt:** Geologists
13. **Tr:** Right geologist very good. Let's clap hands for him. **(Sdnts clap hands -Equal power relations/ community of geography practitioners [ePR])** Also the functions that are performed by this geologist is to explore the minerals, ... so that when they find the minerals then they will tell the company we have got so much minerals here you can come and mine them. So geologists Yes?
14. **Stdnt:** Engineers,
15. **Tr:** Engineers, what else? Yes. ...
16. **Stdnt:** Drivers,
17. **Tr:** Yes we have got drivers, what else? You wanted to say something?
18. **Stdnt:** Miners:
19. **Tr:** Yes miners, miners are those who go to the underground to find the minerals. What else?
20. **Stdnt:** The machine operators.
21. **Tr:** The machine operators, the crane drivers and the builders, the technicians, even accountants. Is it that? Right there are several occupations or jobs that are brought about by mining right what else? What are the other economic advantages of mining? Yes?
22. **Stdnt:** It improves the standards of living
23. **Tr:** Yes it improves the people's standards of living. How? How is the standard of living improved? Can you give me examples of how the standards of living of people being improved. So these miners, these drivers, machine operators, engineers, they are in employment and they get money, they get wages and salaries right, these wages and salaries can be used for different purposes. They can be used to take care of their families is it that right? How is the family taking care of by sending the children to school, school fees, by buying clothes, food, construction of houses, etc. That is right! So that is how the standard of living of people can be improved through mining. What are the other advantages? Besides those three that we have written? **Line 23 - Dominant teacher talk – TAtt**
23. **Stdnt:** Development of infrastructure.
24. **Tr:** Right, development of infrastructure. E.g. roads. What else?
25. **Stdnt:** Hospitals
26. **Tr:** Hospitals what else?

Univocal communication (CS tlf) using an Incremental Routine Question and Answer approach (TAlrqa) in which teacher revoices learner contributions (TAre). This helps shape focus of the lesson, i.e., learners have also some role in steering learning process (LAIs)

TAre

Contributive dialogue, Tr dialogues with class, contributively questions clarifies and validates learners' ideas.–[TAcD, CS II/Itf, TAlrqa]

Teacher probing (as before) affords Learner ownership of learning - TAlO

NB: Learners suggest schools, houses, railway lines, Teacher adds stadiums, shops, hospitals, roads and “things like that, all this infrastructure.”

Figure 3.3: Application of Coding Scheme for a Form 3 Lesson on Mining.

3.11.3 Document study

An important data gathering technique employed in the study was document analysis or the study of relevant documents. In the words of Bowen (2009:27), document analysis is “a systematic procedure for reviewing or evaluating both printed and electronic materials”. Documentary data normally include different files, interview transcriptions, diaries and field notes. For this study, as noted earlier, documentary sources consist of documents such as the *ZCF 2015-2022* education documents and policies, curriculum documents such as the geography syllabus and learning materials such textbooks produced for the new curriculum, MoPSE media releases and relevant school programmes. The content analysis was performed on the basis of Appendix 18; *The Document Analysis Guide for Learner-Centred Pedagogy (LCP) for Middle Level Secondary Geography*. Such a study of documents enabled the characterisation of the *ZCF 2015-2022* reform policy and pedagogical milieu.

3.12 Presentation of Findings

A case report pertaining to each case was produced as part of the within case analysis. The case reports, which make up Chapter 4, sought to give a comprehensive rendering of within case narratives for the four teachers in line with the research questions guiding the research. The case draft report was cross-checked with the participant teacher as part of member checking with respect to the case analysis and conclusions to ensure that his or her experiences and ideas were correctly represented. This research used self-reflective journaling in which participant teachers gave narratives of their experiences in using a learner-centred pedagogy as they implemented the new curriculum. Consequently, quotes are used to allow the voices of the participant teachers to be heard while cognisant of the need to keep the confidentiality of their contributions.

From the case reports it was then possible to have a comparative cross case analysis which are the focus of Chapter 5. A process of *constant comparison*, as advised by scholarly literature was performed to tease out similarities and between emerging categories and patterns (Silverman, 2001; Stoffels, 2004; McMillan & Schumacher, 2014). This constant comparison was applied to both within and across the 4 cases. The

aim of engaging in constant comparative analysis was “to build a general explanation that fits each individual case, even though the cases will vary in their details” (Yin, 2014: 148), and to “develop more sophisticated descriptions and more powerful explanations” (Miles & Huberman, 1994: 172). Consequently, it was possible, as Yin (2014) and Miles, Huberman & Saldana (2020) advise, to string together a tight, interconnected ‘chain-of-evidence’ producing general explanations representing analytical generalisation with a twofold purpose of generalising to other concrete situations and contributing to abstract theory building. The inferences drawn from the cross-case report were compared with existing perspectives or theories on teacher sense-making in extant literature. The multiple case study findings provided an opportunity to shed empirical light on some theoretical concepts in a manner similar to the role of experiments in the experimental approach. For this study, the theoretical concept is how teachers made sense of new curriculum policy requiring the use of learner-centred pedagogy in teaching and learning form 3 and 4 geography. In other words, the theoretical position, on the basis of scholarly literature, is that curriculum implementation is likely to succeed when teachers understand the basis and need for change (Blenkin et al., 1992; Spillane, Reiser & Reimer, 2002). The reverse would apply. The same scholarship argues that simple replacement of syllabi and curriculum materials is insufficient for successful implementation.

3.13 Summary of the Chapter

This chapter has highlighted that the choice of a qualitative research paradigm is apposite the main research question, namely; *How geography teachers enact a learner-centred pedagogy in form 3 and 4 classes as part of implementing the ZCF 2015-2022 educational reform?* The choice of a multiple case study, utilising varied data generating techniques have been shown to collectively constitute appropriate methodology that addresses the sub-questions of this research. In addition, description and justification of the selection of research participants, attendant ethical issues, data generation and data analysis strategies related to the study were highlights of the chapter. The next chapter focuses on the presentation of data to show how geography teachers enacted a learner-centred pedagogy in form 3 and 4 classes.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter focuses on the presentation and analysis of the research data on each participant teacher which represents the within case presentation of findings. The study sought to answer the main research question: *How do geography teachers enact a learner-centred pedagogy in form 3 and 4 classes as part of implementing the Zimbabwe Curriculum Framework (ZCF) 2015-2022?* To address this multiple case study's main research question, data are presented and analysed to answer the following sub-questions:

- i) What are the *ZCF 2015-2022* policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?
- ii) How do geography teachers understand the *ZCF 2015-2022* instructional requirement to use learner-centred approaches in the teaching and learning of geography at form 3 and 4 levels?
- iii) What are the teacher practices in geography lessons as they implement the *ZCF 2015-2022* instructional requirement at middle secondary level?
- iv) In what ways can teachers' understandings and practices be explained and understood in the context of the need to implement *ZCF 2015-2022* proposed learner-centred pedagogy?

The presentation and analysis of data involves a process of bringing together information from several data gathering tools to address each sub-research question. Such data triangulation, while applicable for all research questions, is particularly pertinent for sub-questions 2 and 3 apropos to how geography teachers understand the *ZCF 2015-2022* instructional requirement to use learner-centred approaches and how they enact this requirement in their form 3 and 4 geography lessons, respectively. Findings on each teacher's experience are presented as descriptive accounts to be followed by a synthesis of the case findings as required by sub-questions 2 and 3. It is important to reiterate that, throughout this report, pseudonyms are used for the selected

schools, teacher participants and other research participants to ensure anonymity. Sub-question 4 is fully addressed in Chapters 5 and 6 as part of cross-case analysis and discussion of the study's findings, respectively. The ensuing section focuses on the issue of policy stipulations guiding the adoption of learner-centred pedagogy in the Zimbabwean education system.

4.2 Policy Stipulations on the Use of Learner-centred Pedagogy

An important key in unlocking the main research question of how geography teachers enact a learner-centred pedagogy at middle secondary level was in finding answers to the sub-question: *What are the ZCF 2015-2022 policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?* With respect to the meaning of policy the study adopts the sense used by Warren (2002:40) writing in an American context to the effect that policy is a politically or centrally derived intervention, which may be in the form of a law or official position, requirement or pronouncement and is intended to resolve a perceived societal problem. In the context of Zimbabwean education, schooling was perceived as problematic with respect to producing graduands that were seen as not contributing effectively to the nation's development but also to their own wellbeing (CIET, 1999; *Curriculum Review Process Narrative Report*, 2015). The data on learner-centred policy stipulations were derived mainly from document content analysis or scrutiny of such policy indications in Ministry of Primary and Secondary Education (MoPSE) flagship documents on the *Zimbabwe Curriculum Framework 2015-2022* reforms. Several MoPSE flagship documents on the new competence-based curriculum, for example, the *Zimbabwe Curriculum Framework for Primary and Secondary Education 2015- 2022* and the *Curriculum Review Process Narrative Report 2015* were analysed in this regard.

A document analysis scheme, *Appendix 18: The Document Analysis Guide for Learner-centred Pedagogy for Middle Secondary Geography*, guided the process of analysing each document. The data from the documents were complemented by teacher and policy custodian interview responses. Table 4.1 summarises the documentary policy stipulations on the use of learner-centred pedagogy. The tabular layout enables a comparative portrayal of the policy and pedagogical milieu that the policy fostered in the

implementation of the new curriculum. Overall, the scrutiny of documents enabled a characterisation of instructional policy messages which formed the backdrop against which policy custodians' and teachers' responses to the learner-centred drive could also be analysed.

4.3 Policy Documents on Learner-centred Instruction

Documentary analysis data on curricular and instructional policy stipulations are presented in Table 4.1 which summarises, in columnar structure, the policy provisions of the *ZCF 2015-2022* document and 11 other documents under two main column headings, namely: (i) title of the curriculum and instruction policy or related document, publisher, date and circulation; and (ii) curricular and instruction policy stipulations in relation to selected learner-centred pedagogy and attributes. The list of the 12 documents in the first column, broadly in their chronological order are:

- i) the *Curriculum Review Process Narrative Report*, 2015.
- ii) *Zimbabwe Curriculum Framework for Primary and Secondary Education (ZCF 2015- 2022)*, published in 2016.
- iii) the Ministerial new curriculum launch statement, *Ground Zero: Getting Traction*, published in early January 2017.
- iv) the MoPSE's *Secretary's Circular Number 2 of 2017*(dated 3 January 21017).
- v) the MoPSE-ZIMSEC's *Assessment Framework for Primary and Secondary Education 2017- 2022*, published early 2018.
- vi) the MoPSE *Geography Syllabus 4022* for Forms 1 – 4, 2015-2022, 2016.
- vii) *Our curriculum our journey*; a MoPSE curriculum implementation information (News Media Release *Sunday Mail* 5 March 2017).
- viii) *Curriculum Performance Framework (CPF)*, a 2017 commissioned report on new curriculum implementation.

- ix) five selected geography texts on the new curriculum, namely *Step Ahead: Learner's Book 3*, *Step Ahead: Learner's Book 4*, *Step Ahead: Teacher's Book 3*, *Step Ahead: Teacher's Book 4*, and *Focus on Geography Book 3*.
- x) Progressive Teachers' Union of Zimbabwe (PTUZ) Petition to Parliament on the new curriculum, *The Hurried and Chaotic Implementation of the New Curriculum*, March 2017.
- xi) *Zimbabwe Curriculum Framework for Primary and Secondary Education (ZCF) (2015- 2022) Implementation Formative Evaluation Report*, April 2018.
- xii) *Geography Secondary School Level Forms 1- 6, 2015 -2022 Teacher's Guide*, 2018.

These 12 documents are the main focus of the document analysis and were important in understanding the policy milieu surrounding the learner-centred instructional requirement. Other minor documents are referred to as part of the document analysis process.

The second column is on curricular and instruction policy stipulations. It is subdivided into three columns representing selected learner-centred pedagogy and related attributes. Literature recommends that one comes up with specific criteria or dimensions for analysing a given curriculum document (Posner, 2003; Jansen & Reddy, 1994). For the present study, on the basis of advice from such literature, the criterial attributes adopted pertain to; (i) purpose of education; (ii) curriculum content, knowledge construction, place of learner-centred pedagogy and classroom power relations; and (iii) assessment processes which the policy documents encapsulate. These collectively enabled an assessment of a document's stipulations in guiding the enactment of the *ZCF 2015-2022* learner-centred pedagogy policy drive. The implications for learner-centred pedagogy are given as separate narrative accounts which extend and synthesise Table 4.1 summaries.

Table 4.1 is thus a comparative framework for analysing the policy materials or documents with stipulations on the *ZCF 2015-2022* learner-centred instructional reform.

Such a curriculum materials analysis framework is in the same genre of models as the *Sussex Model* (Maravanyika, 1994), a model for curriculum analysis proposed by Maravanyika (2018), and among the types described by Jansen and Reddy (1994). Presenting and analysing documentary data in this way represents a form of curriculum policy and logical contingency analysis in the broad area of curriculum analysis (Maravanyika, 2018; Jansen and Reddy, 1994). Curriculum analysis, according to Jansen and Reddy (1994), unpacks the curriculum into its component parts and evaluates how the parts fit together with regards to focus and coherence. Logical contingency is a form of curriculum analysis which, in the view of Maravanyika (2018), seeks to establish the level of assonance or congruence on the basis of purely theoretical understanding, experiences or conventions between curriculum, as plans and intentions, and what is theoretically understood and taken as convention and ordinary experience. In Table 4.1 the various policy documents in the first column constitute the curriculum as plans and intentions. As a framework, Table 4.1 gives a comparative analysis of the 12 ZCF flagship curriculum and instructional policy documents and related publications. Assessment of these documents is made with regards to their potential in providing an effective enactment guide to learner-centred pedagogy to the geography teacher on the basis of policy messages they encapsulate.

Table 4.1: Comparative Analysis of ZCF Flagship Curriculum and Instructional Policy Documents.

Title of curriculum and instruction policy or related document, publisher, date and circulation	Curricular and instruction policy in relation to selected learner-centred attributes		
	Purpose of education	Curriculum content, knowledge construction, place of learner-centred pedagogy and classroom power relations	Assessment processes
1. <i>Narrative Report on Curriculum Review Process</i> 2014-15 A foundational needs analysis document Mainly used by policy makers	Compendium of stakeholder input on what education should focus on. Basis for the <i>Zimbabwe Curriculum Framework (ZCF) 2015-2022</i> policy document	Recommends competence-based curriculum that uses learner-centred pedagogy and how education is to be organised. Based on 1999 Commission into Education and Training findings and contemporary (2014-2015) societal inputs	Recommends a continuous and summative assessment regime in place of dominant erstwhile summative approach
2. <i>The Curriculum Framework For Primary and Secondary Education 2015-2022</i>. A 2016 centrally developed MoPSE curriculum policy blueprint. Available for all levels of education but very scarce in schools as one copy was generally lodged with the school administration. Electronic copies were accessible from MoPSE website	‘The focus on learning revolves around learners as they engage in the search and discovery of new knowledge.’ (ZCF 2015-2022, 2016:41) Broader aims of education as set out in the <i>ZCF 2015-2022</i> such as: promote and cherish Zimbabwean identity, prepare learners for life and work locally and globally, develop skills for life-long learning and participatory citizenship. Development of learner exit profiles and competences like critical thinking, problem solving skills, among others.	Emphasis on an in-depth understanding of subject content so that subjects/learning areas (LAs) are the basis for developing learner competences and skills as opposed to mere content acquisition prevalent thereto. Classroom knowledge co-construction and distributed responsibility with teacher as coach, facilitator and guide. Participatory, learner-centred and interactive methodologies fostering problem solving and critical thinking. The <i>ZCF</i> devotes a number of pages to learner-centred pedagogy explaining what it is and why it	Continuous and summative assessments. Continuous class and out-of-class projects and tasks. Learner involved in assessment as learning and assessment for learning.

		is important (pp 40 - 49) The curriculum framework also calls for classroom work that helps students underscoring the primacy of learner-centred methods namely: inquiry-based approach using discovery method, problem-based, research/project-based, multimedia-based learning, design-approach to learning and collaborative/group work.	
3. <i>MoPSE geography syllabus 4022 forms 1-4 (2015-2022)</i>; designed and produced in 2016 by the CDU national panel comprised of representatives of stakeholders in Geography Education. Part of 104 syllabi that form the school curriculum. The Geography syllabus presents the concepts in a spiral approach, from the known to the unknown. Expected competences to be mastered by all learners are explicitly stated.	Development of learner critical thinking skills and competences related to geography. At first schools availed with electronic copies for possible printing and distribution to teachers. As emphasised in <i>The Teachers' Guide</i> (Document 12 in this table) teachers were required "... to teach from the syllabus and should not be guided by the textbooks."	• Content and concepts developed using spiral approach accompanied by a competency matrix. • Expected knowledge, skills and dispositions to be learnt, acquired and developed, arranged spirally at each of lower, middle and upper secondary levels. Geography to have at least 5 periods a week of between 30-40 minutes each. Learner-centred pedagogy as set out in the <i>ZCF</i> document. • Innumerable examples for learner-centred approaches are listed in activities and resources columns of the competency matrix e.g. Educational tours, fieldwork, use of resource persons, use of IKS. • Ten cross-cutting themes listed as in other learning areas (LA) namely: ➤ safety and health issues ➤ disaster risk management ➤ enterprise	Continuous Assessment (CA) and Summative Assessment. (SA) tasks provided late in 2017 but suspended in early 2018. <i>The Teachers' Guide</i> (Document 12 in this table) emphasises that assessment is based on the syllabus.

The new curriculum policy launch invariably preceded syllabi and support materials availability in schools.		➤ sexuality, HIV and AIDS ➤ heritage ➤ climate change ➤ financial literacy ➤ gender ➤ technology •The revised syllabuses have, in contrast to erstwhile practices, not included any summative typical examination question paper with suggested ways of tackling the questions.	
4. <i>Ground zero: getting traction</i>, official Ministerial Launch statement of the new curriculum in early January 2017. <i>“The success of the new curriculum and other policies of the education sector is dependent on active participation of all our Teachers and School Heads.”</i> (the then MoPSE minister, Dokora; 2017)	Develop learner competences and promote national identity: that is inculcating values of <i>Unhu/ Ubuntu/Vumunhu</i>. Reiteration of broader aims of education as set out in the <i>ZCF 2015-2022</i> (Refer above).	Specified learning areas (LAs) at various levels of schooling namely; 7 LAs at infant level (ECD A to GRADE 2), 9 LAs at Junior School (Grades 3 To 7), some 40 LAs at middle secondary and 5 learning pathways with at least 5 LAs each at 'A' Level, and introduction of Life Skills Orientation Programme (LSOP). .At infant level (ECD - GRADE 2) medium of instruction is indigenous languages. • Forms 1-4 acquisition of competences in line with learner talents, interests, aptitudes and abilities. • With the official launch MoPSE promised support for production of teaching and learning materials that are appropriate for the learning needs of all learners from Junior level (Grades 3 to 7) to	CA and SA reinforced through School Annual Science, Sport and Arts Festivals (SSSAF) officially instituted and meant to have teachers, learners and their communities gauge and appreciate the general performance of learners in the New Curriculum. .

5. <i>MoPSE Secretary's Circular no. 2 of 3 January 2017.</i> The official MoPSE document promulgating implementation of the new curriculum and the <i>Zimbabwe Curriculum Framework for Primary and Secondary Education (ZCF 2015-2022)</i> thereby replacing thitherto curricular circulars like Circular No. 3 of 2002.		Secondary level. Geography Teachers' Guides became available in 2018 a year after the launch of the new curriculum. • English will be used as the medium of instruction as before, with indigenous languages being taught as subjects. • No specific mention of learner-centred method but implied in goals and purpose of education and possible availing of appropriate teaching material.	
NB. Content of these two documents is basically the same. The former being more of a political statement (couched in sloganeering language) while the latter is the official Curriculum Policy Document. Launch Statement received wide public media coverage nation-wide. Circular No.2 was distributed to all education stakeholders such			

as; schools, responsible authorities, teacher training institutions, universities, teachers' unions, other government ministries etc. .Curriculum Policy pronouncements mostly preceded the availability of syllabi and support materials in schools.			
6. Five Selected geography texts on the new curriculum namely; <i>Step Ahead: Learner's Book 3, Step Ahead: Learner's Book 4, Step Ahead: Teacher's Book 3, Step Ahead: Teacher's Book 4, and Focus on Geography Book 3.</i>	MoPSE has oversight responsibility to evaluate and approve school subject text books so that they are in line with curricular aims.	- Continued use of old textbooks as content largely the same, that is, textbook content is relevant to the new curriculum, ranging from 60% to 100%, (Dokora, 2017). - Most textbook revisions have only been skin-deep as most publishers, in the rush to produce for the new curriculum have but only changed the cover page with labels of 'NEW CURRICULUM'. - New topics like GIS were covered in four of the five analysed geography textbooks. - Notable updates have been with one publisher, out of a normal count of five, in that the content has been updated for Form 1 to 4 levels and the texts are accompanied by a separate <i>Teacher's Guide</i> with ostensibly new curricular learner-centred pedagogy, related exercises and tests.	Textbooks and teachers' guides with exemplars of learner-centred methods and continuous assessment tasks were initially unavailable.

7. Curriculum Implementation information release MoPSE: <i>Our curriculum our journey March 2017</i>. A press release in the form of an advertisement in a popular weekly. Targeted the general public to inform them on the origins, aims, and implementation progress of the new curriculum in the spirit of 'continued interaction.' Marked the first public use of 'updated curriculum' in contrast to 'new curriculum' used hitherto. MoPSE claimed to have printed 104 syllabi in 2016 and ostensibly distributed them to schools by March 2017. The Ministry claimed to have delivered training at national, provincial, district, cluster and school levels on the new curriculum.	Echoes the emphasis on preparing learners for current and future opportunities and challenges by developing relevant skills, knowledge, attitudes from a competence-based approach. The promotion of national identity and skills sets that enable citizens to live and work competitively locally and in the global village.	• Stresses that content and concepts in the syllabi have been arranged in a spiral approach, from 'simple to complex' as well as from 'known to unknown', starting from ECD to Form 6. • Seven cross-cutting or core subjects at 'O' Level namely: ➤ safety and health issues ➤ disaster risk management ➤ enterprise ➤ sexuality, HIV and AIDS ➤ heritage ➤ climate change ➤ financial literacy ➤ gender ➤ technology	Continuous assessment (CA) and learner profiling to be at all of Infant, Junior and Secondary levels. .CA mark derives from completed tasks at grades 6 – 7, at forms 3-4 and 5-6 to contribute part of final exam grade for learners in all terminal exams. . Learner profiling carries no mark but is a track record of learner performance on a range of competencies.
8. MoPSE <i>Assessment Framework for Primary and</i>	An outgrowth of the curricular and assessment reforms encased in the ZCF	Focus on continuous and summative assessment is meant to develop meta-cognitive abilities in	A hybrid of CA and SA model that requires teacher competences as facilitators of

Secondary Education 2017-2022.	2015-2022 reform initiative. Facilitates the adoption of education system focused on experiential learning and development of desirable traits and competencies as opposed to an examination oriented one.	learners. The assessment framework guides teachers “in the use of strategies for gathering and using information in ways that serve daily assessment and encourage strong working relationships between learners and teachers and among learners themselves.” (Masango, 2018:2). Teachers need to develop Continuous Assessment Learning Activities (CALA) including moderation for learning. Such use of assessment makes it serve learner needs and hence makes an important component of <i>learner-centred pedagogy</i> .	learning and assessment where they have to use approaches as; <i>assessment of learning</i> , <i>assessment for learning</i> and <i>assessment as learning</i>
9. Curriculum Performance Framework (CPF) A Commissioned Report (Chikutuma, 2017).	The CPF is a guide to MoPSE on tracking progress towards the attainment of the ZCF 2015-2022 curriculum goals through periodic and continuous curriculum performance measurement i.e. basis for revision	Guiding question: <i>How well do planned activities and learning opportunities produce the desired goals and results/or outcomes?</i> Guide to curriculum policy & <i>learner-centred pedagogy</i> implementation enhanced by: Learner centredness (i.e. learner participation, achievement, attainment and equity), relevance of syllabi for all LAs, new curriculum (NC), book ratio by LAs, learning support materials (LSM) preparation, teacher professional development on NC, percentage of schools with access to internet (computers) & offering computer-assisted learning etc.	Percentage of; learners completing CA tasks by LAs, schools participating in AASSF activities.

10. Progressive Teachers' Union of Zimbabwe (PTUZ) Petition to Parliament on the NC, <i>The Hurried and Chaotic Implementation of the New Curriculum</i>, March 2017. 'Teachers have been reduced to clerks. There is no time for lesson delivery. Headmasters not adequately staff developed on this New Concept and New Curriculum' NB. Petition not considered since it was turned down on technical grounds.	Surmised as creator of equal opportunity, which aim, PTUZ claims the new curriculum is against.	• Time tabling challenges with double session or hot sitting schools trying unsuccessfully to adopt 5 to 6-day cycles instead of the normal 5-day cycles. • Content claimed to be "too broad and too deep with Primary kids are overloaded." (PTUZ, 2017) • New Curriculum excludes and shuts the door for repeaters and does not take cognisance of learner.	No template for CA two months after launch of new curriculum though Revised Assessment Framework was availed by mid-2018.
11. Curriculum Framework 2015-2022 <i>Implementation Formative Evaluation Report</i> (April 2018). A MoPSE appointed independent Evaluation Team (ET): under chairperson of educationist Chinyemba, F. • For MoPSE minister and top MoPSE policy makers	To formatively evaluate <i>ZCF 2015-2022</i> first year (2017) implementation. Potential of revising and guiding subsequent implementation policy and decisions.	Recommendations and actions related to the <i>ZCF</i> policy reform and implementation milieu touching on the learner-centred pedagogy drive include: • Review of CA Regime produced a new <i>Assessment Framework</i> which has been scrutinised hitherto. • MoPSE urged to engage stakeholders constantly on NC through an effective communication strategy – no visible strategy effected by mid-2018. • Training of teachers in specific LAs for effective implementation. LAs. • Resource mobilisation for successful implementation of the new curriculum (NC).	CA regime reviewed and encased in the <i>Assessment Framework</i> (Refer to item 8 under column 1).

		• Policy alignment with regards to the requirements of the NC and reconfiguring cross-cutting issues vs LAs and subject electives. • Align teacher education under Ministry of Higher and Tertiary Education, Science and Technology Development with New Curriculum for Primary and Secondary Education.	
12. <i>Geography Secondary School Forms 1-6, 2015-2022 Teacher's Guide</i>. A Curriculum Development Unit (CDU) 2016 publication. However was slow in getting to schools. Available in schools and for teachers well after the launch of the new curriculum in 2018. Nevertheless a useful guide to the enactment of the new curriculum.	To familiarise teachers, as the implementers of the new curriculum, with MoPSE documents and requisite syllabus interpretation processes in order to understand and be able to narrow the gap between intended and implemented curriculum. It emphasises the need for teachers "to up-date yourself in terms content through research and capacity development for you to deliver with confidence." The Guide describes and explains the following in the context of the new curriculum as Critical Documents; the <i>Zimbabwe Curriculum Framework for Primary and Secondary Education (ZCF)</i>, Syllabus Interpretation, Scheme of Work, Lesson Plan, Record Keeping, Curriculum Delivery and The Scope of The Guide. These topics are broadly similar to teacher induction issues (Refer to Figure 4.1 later).	Stresses centrality of Curriculum Content, Objectives, Methodology, Instructional Materials, Class Management and Assessment which it advises have to go with proper syllabus interpretation, record keeping and lesson delivery. Highlights a methodology where 'teacher role as facilitator vs the learner as the doer'. Learner-centred and hands-on approaches to encompass experimental learning, problem solving methods, demonstrations, field work, games, simulations, debates, laboratory work and experiments, group work and discussions, role-play, case studies, project based work, educational tours and use of relevant teaching and learning resources. Advises teachers to be able to design appropriate strategies for enhancing competencies or skills as the promotion of critical thinking, problem solving and integrating cross cutting themes in various syllabus topics.	Emphasises teacher ability to use formative or continuous, summative forms of assessment and learner profiling.

There is a need to beef up the tabulated assessment of the 12 documents listed in Table 4.1. The documents illustrate their potential in guiding the geography teacher in the effective enactment of learner-centred pedagogy. This potential is highlighted by policy messages they encapsulate and through analytic narratives in interview-based responses by participant teachers and curriculum policy custodians. The analytic narratives are outlined in the following sections.

4.4 Analysis of Provisions of Learner-centred Pedagogy in Policy Documents

At the official launch of the new competence-based curriculum, the then Minister of Education declared “[t]he Curriculum for Primary and Secondary Education is based on the Curriculum Framework 2015-2022 and the approved syllabuses by the Ministry” (Ministerial Launch Statement *Ground Zero Getting Traction*, 2017: Slide 16). This important role of the *Zimbabwe Curriculum Framework (ZCF)* document was echoed by a senior Curriculum Development Unit (CDU), in interview comments in response to the question; *What can you say is the importance of the Curriculum Framework?* A senior CDU official, with close reference to the CDU mandate as articulated in the *Curriculum Development Unit Policy Document, 1990*, was in this same aforesaid interview of the opinion that:

The design and development of various subject syllabi for all school levels, was only possible after the *ZCF* document was in place, that is sometime after mid-2015. This was so since the *ZCF* document was the main reference point for the national subject panels to develop syllabi that emphasised the foci to be adopted such as on the learner-centred pedagogy. The writing of textbooks, other learning support materials like Teachers’ Guides and supplementary materials is guided by the type of curriculum stipulated by flagship documents like the *ZCF* blueprint.

These sentiments by the Curriculum Development Unit (CDU) official portray the *ZCF 2015-2022* publication as the main flagship policy document on the curriculum and instructional reform process. It forms the bedrock on which other documents are founded. In this context, other curriculum documents such as syllabuses, textbooks and teacher’s guides for use by learners and teachers are, in a sense, amplifying the *ZCF 2015-2022* document to foster intended curriculum and instructional implementation. In addition, the *ZCF 2015-2022* document underscores the constructivist basis of the learner-centred pedagogy in these words;

It is critical to foster a learner-centred pedagogy that promotes free interaction amongst the learners and which values the integrity of each one. The teacher builds a positive relationship through knowing and cherishing each learner and promotes a culture of respect for individuals and their communities. ... It is essential that learners themselves take ownership of the learning process, including life-long learning. There is need to create a community of learners, in which they learn independently and collaboratively. Teachers encourage and support learners to take responsibility for their learning and use various strategies that build skills for productive collaboration. ... A range of strategies that support the different ways of thinking and learning are used to build on learner prior experiences, knowledge and skills (ZCF 2015-2022, 2016:49).

The *Teacher's Guide* and new *Geography Syllabus 4022* echo the same thrust on learner-centred pedagogy and constructivist learning by highlighting the need to use pro-learner-centred active learning. The recommended methods encompass learner-centred and hands-on approaches, covering experiential learning, problem solving methods, demonstrations, field work, games, simulations, debates, laboratory work and experiments, group work and discussions, role-play, case studies, project based work, educational tours of local farms and factories and participation in local level environmental management activities like constructing fireguards, tree planting and controlling soil erosion (*Geography Forms 1-6, Secondary School Level 2015-2022 Teacher's Guide* 2016:19, *Zimbabwe Geography Form 1-4 Syllabus 4022*:68-70). It is also important to note that the *Curriculum Review Process Narrative Report 2014-2015*, a foundational and need analysis document to both the *ZCF 2015-2022* and the *Geography Syllabus 4022*, recommends the need to adopt constructivist and learner-centred teaching for the new Zimbabwean curriculum. The Review Report suggests the provision of a relevant, accessible and quality education utilising "... appropriate learner-centred constructivist methods, learning materials, indigenous knowledge system (IKS), local language and assessment approaches", as an integral part to the MoPSE mission (*Narrative Report 2014-2015*: 24). Additionally, the *Narrative Report* recommends the need to adopt constructivist and learner-centred teaching and learning by stressing changes from:

- i) teaching to learning hence the saying 'Stop teaching and let the children learn',

- ii) transfer of facts to student construction of knowledge,
- iii) memorisations of information to analysis, synthesis, evaluation and application of information,
- iv) concentration on acquisition of knowledge to concentration on development of knowledge, skills, values and attitudes,
- v) non-participatory activity to student centred approaches and 'interactive methodology' (*Curriculum Review Process Narrative Report 2014-2015:79*).

The need to adopt a learner-centred pedagogy is thus unambiguously spelt out in the *Curriculum Review Narrative Report*, the *ZCF 2015-2022* document, the *Geography Syllabus 4022*, the *Teacher's Guide* among other new curriculum policy-related documents. The call for learner-centred pedagogy liberally permeates these documents such that an impression may be created that learner-centred pedagogy is the panacea to teaching-learning challenges in the education system. Furthermore, the need for curriculum policy implementers to possess and use the *ZCF 2015-2022* document to guide their curriculum implementation activities is captured in the Ministerial launch proclamation and the new curriculum *Implementation Policy Circular* thus:

The implementation of the curriculum in Primary and Secondary Schools shall be guided by the Curriculum Framework 2015 to 2022. The Curriculum Framework presents heads, teachers and the entire education system with a unique opportunity to engage in professional development, improve learning outcomes and prepare learners for the current and future opportunities and challenges. (*Circular No. 2 of 2017:1* and *Ground Zero: Getting Traction 2017: Slide 2*)

Implied in the Ministerial statement and the *Implementation Policy Circular* is that 'heads, teachers and the entire education system' were to access the *ZCF 2015-2022* blueprint for successful enactment of intended instructional changes. The necessity for teachers and other local level implementers to access and be conversant with the *ZCF* document as well as other curriculum policy documents, syllabuses and supplementary materials also clearly comes through with a repeated invocation in the two flagship documents that:

... (e)ach teacher shall gain ownership of the curriculum, develop an in-depth knowledge of content and the appropriate teaching methodologies and approaches. The responsibility for the quality of educational provision in individual schools at the local level rests with the head, teachers, parents,

business and the community. (Circular No. 2 of 2017:9, Ministerial Launch Statement *Ground Zero Getting Traction*, Slide 24).

The call for adopting learner-centred pedagogy is thus a central message to the successful enactment of the new curriculum encapsulated by the various policy documents. However, I found out that the message on the imperative for adopting a learner-centred pedagogy and the role that local level actors had to play had the potential of going unheeded mainly due to two reasons. Firstly, such a possibility is evident from interviews with school heads who hinted at the difficulties they faced in accessing the policy documents. Secondly, a scrutiny of the policy documents, supplemented by participant teacher interview data, suggests that policy documents did not offer adequate guidance for teachers to enact learner-centred pedagogy. These two issues are elaborated, on the basis of interview submissions, in the following sections.

4.5 Problematic Access to Curriculum Policy Documents

In interviews with school heads, as local policy custodians, I inquired on how easy or difficult it was to access new curriculum policy documents and new-curriculum-compliant textbooks and *Teachers' Guides*. In response to interview inquiries on access to policy documents, comments by the school head of a rural day secondary school Rapera Secondary, were instructive thus:

The ZCF document is available in my office for any teacher to borrow and read. However, most teachers just flip through the pages without borrowing for any sustained reading. The syllabuses are now [in early 2018, the second year of implementation] readily available to subject departments as hard copies. This is unlike the situation in 2016 and 2017 when we had to make do with electronic copies [e-copies]. The use of electronic copies, while making the materials timeously available in schools, proved a problem in that as a school we have only two easily accessible desktop computers in the staffroom. This means that the 31 teachers we have cannot readily access the computers for prolonged periods in any given day. Very few of our staff have laptops from which to use the electronic copies even at home. Also it would be too costly to make hardcopies for subject departments or individual teachers. We are ever running short of paper and ink, that is toner, to even print material for our administrative documents. Printing voluminous syllabus copies for teachers is out of question. For example, in geography that you are researching on, the syllabus would need 79 pages of *Bond* or white glossy printing paper.

Similar sentiments were expressed in interviews with other school heads, though with different degrees of emphasis on the new curriculum material distribution challenges. A

case in point was that of the head of Naviana High, a long-established urban school who bemoaned:

... (t)eachers seem more used to hard copies. Though they could easily read e-copies using computers in the library, they are not inclined to use this facility which would quicken the uptake of the new curriculum.

This was complemented by a collaborating teacher or teacher participant, Mr Mtero, at a long-established rural boarding school who boldly stated his preference for hard copy documents thus:

I am used to hardcopies. The Ministry should provide hard copies. I cannot be prevented from accessing syllabuses simply because I do not have requisite ICT gadgets and skills. All along new syllabuses have come as hardcopies.

These foregoing interview submissions largely attest to the fact that the e-syllabuses availed to schools were documents which either schools found too voluminous and costly to print for their staff or which teachers could not easily access or were unwilling to access. Ordinarily, as observed by the school head of Naviana High and as expected in the current information age, access and use of e-copies augurs well for timeous and successful uptake of the new curriculum. However, the challenges associated with e-copies, as the interview excerpts illustrate, were that many ordinary teachers did not have easy access to desktop computers or laptops from which to study the curriculum documents including syllabuses.

A less sympathetic and oppositional view of the launch of the new curriculum and the associated initial distribution of curriculum materials and policy documents was held by the Progressive Teachers Union of Zimbabwe (PTUZ). In its proposed, but eventually unsuccessful, *Petition to The Parliament of Zimbabwe*, they argued that “... our current curriculum process was hurried, chaotic, shambolic and lacking in the provision of syllabi, resources, focus, direction and national consensus on content.” (PTUZ *Petition to the Parliament of Zimbabwe*, 2017:2). This hostile reception of the introduction of the new curriculum depicts the launch of the curriculum as ‘noisy landing’.

The distribution and use of e-curriculum documents therefore encountered challenges that potentially delayed the initial uptake of the new curriculum. I raised this issue in a follow-up interview with a senior official of the Curriculum Development Unit (CDU) whose responsibility included printing and distributing new curricular materials to schools. The question was: *Why the CDU and MoPSE distributed e-syllabuses and not hard copies as per established practice?* The official responded thus:

At the time when we were preparing for the launch, which was in the last quarter of 2016, we did not have funds to print and distribute all the required syllabuses. In all, a total of 104 syllabuses comprising 8 for infant, 11 for Junior, 41 for lower and middle secondary and 44 for 'A' Level were developed. The new curriculum had to be launched in the following year without fail. We followed the e-copy route as the nearest, quickest and cheapest mode of disseminating the curriculum materials. Rather than wait for funding, which was nowhere in sight, we opted to go electronic. An unstated side benefit would be the message that 'the electronic age was now upon us' and schools had to take it on board despite existing challenges.

The nature or format of curricular materials, especially electronic syllabuses, accessed and distributed from the centre, would seem to suggest that the curriculum agents, namely the MoPSE and CDU, imputed material costs and habits which lower level implementers like schools and classroom teachers could neither easily shoulder nor adopt, respectively. The PTUZ petition captures this through the statement that "[s]chools are forced to fund printing of syllabi. Burden has been passed to poor parents" (*PTUZ Petition to Parliament of Zimbabwe*, 2017:2). The foregoing suggests that the initial 'technically limited' availability of the Curriculum Framework and Geography Syllabus 4022 in the form of e-documents inhibited quick and smooth uptake of the new curriculum for a teaching force accustomed to using hard copies. This problem of e-curricular materials was apparently further compounded by a related challenge of an existing teaching force which received inadequate induction as highlighted in the next section.

4.6 Need for Teacher Induction on Learner-centred Teaching Competences

Although it is important for curriculum policy implementers or local actors to have at their disposal the relevant instructional documents, there was need to scrutinise what policy documents recommended with regards to preparing teachers on implementing the new instructional reforms. A precondition for successful teacher adoption of learner-centred pedagogy is captured by the *Curriculum Review Process Narrative Report*, a foundational document to the *Zimbabwe Curriculum Framework 2015-2022*. The report calls for “... a transformative education system predicated on a shift from a content-based and examination driven curriculum to a competency and skills-based curriculum and grounded on both continuous school-based assessment and public examinations” (*Curriculum Review Process Narrative Report 2014 – 2015*: viii). I therefore investigated what strategies such a transformation would require with respect to teacher induction. I scrutinised some of the main policy documents like the *ZCF 2015-2022* blueprint and ministerial directives.

The *ZCF 2015-2022* blueprint sets the tone on such strategies by suggesting that pre-implementation preparations were to involve “... measures to orient and induct teachers, district education inspectors and provincial education inspectors to the curriculum framework. This will also constitute an important area in teachers’ continuous professional development or in-service training.” (*ZCF 2015-2022*; 2016: 44). In the same vein, the Ministerial Launch Statement; *Ground Zero: Getting Traction* in early 2017 informed the Zimbabwean public on the progress of preparing for curriculum implementation thus:

The Ministry has already deployed resources at cluster level for, *inter alia*, production of teaching and learning materials that are appropriate for the learning needs of all learners. Additionally, districts shall consolidate skills training through peer support, model lessons and in-service training (Ministerial Launch Statement; *Ground Zero Getting Traction*: Slide 21, January 2017).

Yet another document, an *Aide Memoir* to the 2017 Education Sector Review Report, captures the requirement for staff development on continuous assessment specifically and the new curriculum generally, in these words,

Continuous Assessment that contributes to 30% of public examinations requires that teachers be knowledgeable on how to assess the tasks and projects. [...] Ministry must ensure that all teachers ... school heads, learning-area department heads are trained on continuous assessment. ... MoPSE must continue capacity development of personnel in schools in order to enhance the implementation of the curriculum. (*Aide Memoir 2017 Notes, Education Sector Joint Review, 2018:1*)

Furthermore, a public media News Release titled *Our Curriculum, Our Journey* capped it all by informing the Zimbabwean public that the MoPSE had offered:

... training to over 70,000 teachers, who are implementing the curriculum in 2017, on syllabus interpretation. These were teachers of targeted grades - ECD A, Grade 1, Grade 3, and all forms at secondary school. The Ministry delivered training at national, provincial, district, cluster and school levels. ... Additionally, those teachers in grades that will roll out the curriculum in 2018 will receive training later this year. (*Sunday Mail, 5 March, 2017:2*).

This news release excerpt, in line with the other foregoing pronouncements in policy documents, stresses the importance of prior teacher induction as a precondition set by the MoPSE policy custodians for curriculum implementation. These policy documents are replete with messages on the need for staff development and induction of teachers. The policy documents essentially carry the message of induction as a precondition for the successful uptake of the new curriculum. The emphasis on pre-implementation induction underscores the fact that it takes more than mere availability of curriculum materials like syllabuses, textbooks or teachers' guides to successfully enact envisaged changes. Information on how to use these materials is also needed and was supplied in aforementioned policy documents. In subsequent interviews with teacher participants, a related question posed was: *'What kind of training or induction did you receive and how effective did this prepare you in implementing learner-centred teaching in your geography classes?'*

At a long-established urban high school, a geography teacher participant Mrs Musi, in an interview, stressed that when the new curriculum was introduced at the beginning of 2017, teachers did not have enough information except for access to hard or e-copies of the new syllabus. She expressed that:

... [t]he school level induction focused on generalities like syllabus interpretation. It did not touch on issues relevant to us as geography teachers. There was no induction on how to handle new content such as GIS, how to mainstream cross-cutting issues and how to teach for learner-exist competences.

At a long-established boarding school yet another teacher, Mr Mtero, had a broadly similar testimony saying:

Yes, workshops were done to brainstorm the new curriculum even though none that was subject-specific was conducted. We had to implement the new curriculum as part of policy without much information. We, the teachers, attended a school-based workshop in which two senior teachers who had received training in a similar workshop at District or cluster level were the facilitators. I am of the view that whatever curriculum materials such as syllabuses that are supplied have to be accompanied by appropriate teacher induction if the materials are to be used effectively in implementing a new curriculum.

Commenting on this top-down cascade model of training adopted by the MoPSE to disseminate information on the new curriculum, another teacher recipient of school-based induction, Ms Jowa remarked:

What baffles the mind is the fact that the teachers who had the mandate to train their fellow colleagues did not fully understand what they were disseminating. Questions asked were, in many instances, not satisfactorily answered for the simple reason that facilitators did not understand what they were required to do. It was out of question to expect these facilitators to address subject-specific concerns like learner-centred GIS teaching in geography. The inductions were multi-subject workshops, a kind of one-size-fit-all affairs, which dealt with common teaching-learning issues like syllabus interpretation and scheming. They could not adequately address subject requirements. It was a matter of being told global issues to do with the new curriculum irrespective of whether you liked it or not. The common remark from the facilitators was; 'It is what is there. If you want to continue being part of the system the earlier you accept and do what is wanted the better. There is no going back.' A phrase that has gained popularity at this time is that: *Either you shape up or you ship out!* On their part the school Head, his Deputy and HODs also insisted that compliance with policy was the way to go in spite of inadequate information or shortage of teaching-learning resources which they hoped, in line the official MoPSE mantra, would be addressed in due course.

This somewhat incisive comment exposes the inherent shortcomings of the top-down cascade model of curriculum and instructional innovation dissemination adopted by the MoPSE. Teacher responses on the kind and effectiveness of induction they received show that the induction process did not prepare them adequately for teaching the new curriculum, including learner-centred geography lessons. The interview excerpts highlight shortcomings associated with the cascade approach to curriculum dissemination. The approach led to diminishing effectiveness or relevance as the process cascaded to lower local actor levels where subject-related specificities were needed for effective implementation. This is highlighted in the teacher responses about the failure of induction to address subject specific issues like teaching GIS in geography due to inappropriate knowledge or skills held by induction facilitators.

The focus of the induction process, as stated in the *News Release* cited in **Section 4.6**, mainly covered '*induction on syllabus interpretation*'. This also comes to the fore through a scrutiny of an *induction* items *agenda* contained in a cluster-based induction workshop programme that one of the schools and its teachers targeted by the study participated in. Refer to Figure 4.1.

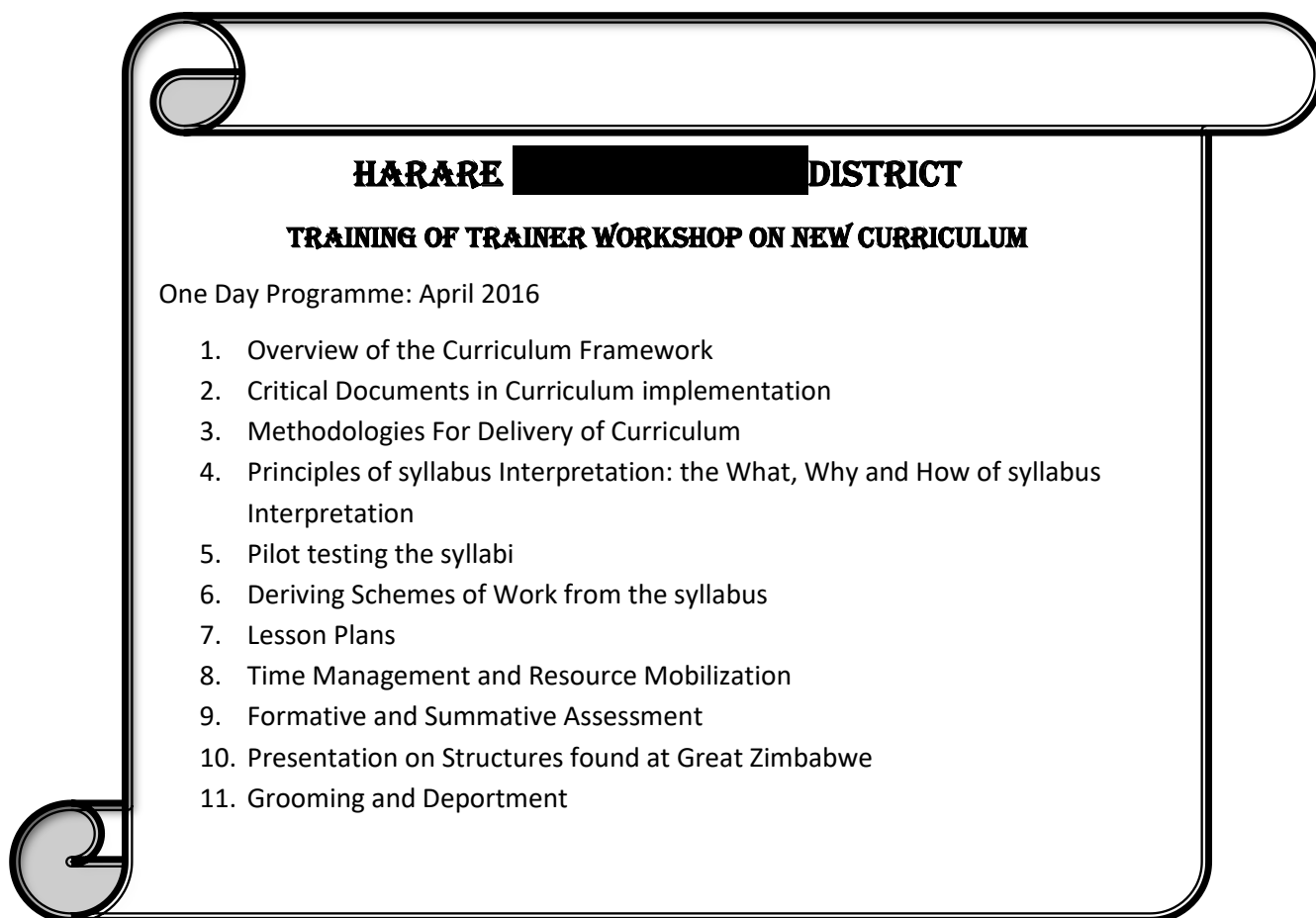


Figure 4.1: Typical New Curriculum Induction One Day Programme

The items for induction contained in the programme, Figure 4.1, while relevant for implementing the curriculum, are rather broad and general focusing on global issues. The induction items in the programme confirm the participant teachers' complaints with regards to lack of any explicit reference to areas like learner-centred teaching, how to teach for learner-existent competences and how to mainstream cross-cutting issues in specific subjects, including geography.

The general trend of inadequate induction was confirmed in the PTUZ proposed Petition to Parliament thus, "[h]eadmasters not adequately Staff Developed on this New Concept and New Curriculum" and "... [t]eachers have not been properly Staff Developed for the ICT Component and many other areas", (PTUZ *Petition to Parliament* on the new curriculum, *The Hurried and Chaotic Implementation of the New Curriculum*, March

2017; items 20 and 7 respectively).

Notwithstanding this typical top-down approach to curriculum dissemination and implementation, teachers had to implement policy in the mandated way. Failure to do so meant they could be charged for failure to discharge their duties correctly. This was borne out by policy which clearly stipulated that: “(i)nternal and external supervision shall be undertaken to ensure effective implementation of the New Curriculum. Heads shall ensure that teachers are supervised in line with Teacher Professional Standards (TPS) at least once every month (and that) (t)herefore it is incumbent upon every school to effectively implement the provisions of this circular” (Permanent Secretary’s *Circular No.2* of 3 January, 2017: 8-10).

The requirement to have teachers implement curriculum reform as officially stipulated is not new to Zimbabwe. The top-down approach has a long history in Zimbabwe as shown by Zvobgo, (1999) and Mavhunga, (2014), among other writers. This approach contrasts with Stenhouse’s (1975) conception of curriculum as an “attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice” (1975:4). In this context, Stenhouse’s approach is that teachers, as implementers, bring a curriculum idea to life in their classrooms with room to innovate as local circumstances dictate. The dominant approach in Zimbabwe, as attested by the afore-described teacher interviewee responses on the induction process and the typical focus of induction workshop programmes, tends to be in line with the view of curriculum as something fixed and handed down for implementation as prescribed.

4.7 Portrayal of Learner-centred Instruction in Selected Policy Documents

The forgoing section, as attested by teacher participant interview data, has brought out that the process of disseminating the new curriculum followed a top-down induction approach. The teacher interviewees thought that this process resulted in them receiving inadequate pre-implementation induction. This led me to pursue a line of inquiry as to whether teachers could not have studied policy documents in the wake of unsatisfactory induction encounters. Consequently, I scrutinised the *ZCF 2015-2022* document, the Permanent Secretary’s *Circular Number 2 of 2017* policy document, the *Teacher’s Guide*

and the *Geography Syllabus 4022* with regards to how well their messages could potentially guide teachers in enacting learner-centred instruction. The justification for this scrutiny is captured in a 2017 Education Sector Joint Review *Aide Memoir* that reads:

The curriculum implementation process should be backed by adequate teaching and learning materials such as textbooks, teachers' guides, computers and other equipment and teachers qualified to teach the new learning areas. (2017 Education Sector Joint Review, *Aide Memoir* Notes 2018:1)

4.7.1 The ZCF 2015-2022 blueprint coverage on learner-centred pedagogy

The *ZCF 2015-2022* document gives the inquiry-based learning as an example of a learner-centred method in the same league as discovery method, project-based learning, problem-based learning and design-based learning (*ZCF 2015-2022*, 2016: 42). It further lists the following characteristics of inquiry-based learning:

- i) developing questioning, research and communication skills
- ii) problem-solving
- iii) collaborating within and beyond the classroom
- iv) developing an in-depth understanding of subject content
- v) participating in the public creation and improvement of ideas and knowledge
- vi) encouraging critical thinking (*ZCF 2015-2022*, 2016: 42).

I asked teacher participants how well this *ZCF 2015-2022* coverage on learner-centred pedagogy served as guiding content for enacting a learner-centred pedagogy. To have them respond appropriately, I had them study Sections 5.2 and 5.3 in the *ZCF 2015-2022* document (pages 41 to 43) covering the recommended teaching learning approaches. In the opinion of one teacher participant, Mrs Musi:

The coverage and descriptions of learner-centred pedagogy given in the *ZCF* document are not helpful to classroom teachers seeking to abandon teacher dominated methods for learner-centred pedagogy.

She thought that detailed examples of learner-centred lesson episodes could have helped. Another teacher, Mr Mtero had earlier on touched on a possible reason. Mr Mtero, in an earlier quoted submission (**Section 4.6**) on the relative importance of curricular materials vis-à-vis the importance of pre-implementation induction opined that:

I am of the view that whatever curriculum materials such as syllabuses that are supplied have to be accompanied by appropriate teacher induction ...

On how well the *ZCF 2015-2022* coverage on learner-centred pedagogy served as guiding content for enacting a learner-centred pedagogy, Mr Mtero echoed Mrs Musi's sentiments with the response that:

... [t]eachers would do with some illustrated or detailed examples of the learner-centred approach. As teachers we neither have good reference sources to build onto the listed learner-centred methods nor the time to research on these preferred approaches.

These comments underscore the fact that on its own the *ZCF 2015-2022* document is not a one-stop-shop for learner-centred pedagogy. It did not provide detailed and illuminating guidance to teachers in adopting learner-centred teaching. Teachers wanted other supplementary materials to guide their efforts at teaching learner-centred lessons. It may have been due to this realisation that the then MoPSE minister at the time of the launch of the new curriculum had promised to produce and avail:

... teaching and learning materials that are appropriate for the learning needs of all learners. (Ministerial Launch Statement *Ground Zero Getting Traction*: Slide 21, January 2017).

In addition, MoPSE in the *Media Release* on 5 March 2017 promised that:

[t]extbooks are being developed for the new learning areas, and some are already available in the market. As with the other learning areas, teachers' guides and supplementary materials are being produced and should begin to reach schools before the end of the first term of 2017.

Unfortunately, these materials like *The Teacher's Guide* began to reach schools some later in late 2018 or early 2019.

4.7.2 Circular Number 2 of 2017 coverage on learner-centred pedagogy

The second document that I scrutinised, the Permanent Secretary's *Circular Number 2 of 2017 Implementation of Curriculum Framework 2015-2022* policy document. The document does not explicitly mention the learner-centred pedagogy. *Circular Number 2* adopts a top-down, implementation-by-edict approach by exhorting schools to effectively implement its provisions and further reminds implementers that:

... the implementation of the curriculum ... will be guided by the Curriculum Framework 2015 to 2022. (... and) the task of implementation requires focused and committed leadership to lead the implementation in the school. The thrust of the curriculum is premised on the development of competences (knowledge, skills and attitudes) and promotion of national identity including inculcating values of *Unhu, Ubuntu/Vumunhu*.” (Circular No. 2 of 2017:2).

This extract shows that *Circular No. 2 of 2017*, the official curriculum implementation policy document, indirectly recommends learner-centred pedagogy by directing that the *ZCF* blueprint, which covers learner-centred pedagogy in greater detail, as outlined in **Section 4.4**, be the basis of curriculum implementation. In my visits to schools, I observed that *Circular No. 2 of 2017* was widely accessible in schools since it was prominently displayed on staffroom notice boards in the studied schools. This availability contrasts with that of the bigger and more voluminous *ZCF* document where one or a few copies were lodged with school heads’ offices. The *ZCF* document, as earlier reported by one school head, had teachers perfunctorily flipping through it in a process which could hardly ground the teachers in the learner-centred pedagogy it advocates.

4.7.3 New Geography Syllabus 4022 and the learner-centred pedagogy

An important document that encases curriculum reform policy signals is a subject syllabus which in this study is the new Geography Syllabus 4022. The syllabus represents the culmination of curriculum reform processes and an end-product which, in the hands of the classroom teacher, is an instrument to enact proposed curricular and instructional reforms. The syllabus stipulates intended changes with regard to the aims and objectives for offering geography, the content to be covered, the order or sequence of content coverage or organisation, the recommended teaching-learning methods, possible material resources for use and assessment procedures. For a classroom teacher, a subject syllabus is an indispensable key to unlocking his or her understanding and implementation of curriculum policy. Given its central role in classroom level curriculum implementation, I selected the new Geography Syllabus 4022 for scrutiny. I was particularly interested in how the Geography Syllabus 4022 document articulates learner-centred methods for use by geography teachers. It is important to record that knowledge on learner-centred methods was derived from the review of literature on learner-centred pedagogy generally and in Geography mainly. Refer for example to

Section 2.14. Additionally, I inquired into the ease with which participant geography teachers implemented the learner-centred pedagogy using or guided by the new Geography Syllabus 4022.

Although it is theoretically possible to teach most topics, if not all, using learner-centred approaches, I found out that the new geography syllabus, in its competency matrix (Section 7.0, pages 14-73) explicitly suggests the adoption of individual or group-based learner-centred activities in some topics. These topics represent in-built prompts for the teacher to adapt learner-centred pedagogy.

Figure 4.2 is an extract from the syllabus competency matrix illustrating topic 5 on *Energy and Power*, with such prompts or examples of possible individual or group-based learner activities and contextualised learning.

FORM 3 SYLLABUS COMPETENCY MATRIX

TOPIC 5: ENERGY AND POWER

TOPIC	OBJECTIVES Learners should be able to:	CONTENT	SUGGESTED NOTES AND ACTIVITIES	SUGGESTED RESOURCES
Conservation of energy sources	explain how energy sources can be conserved	- Increased use of public transport - Use of renewable energy sources: - wind, - biogas - Hydroelectric power - solar power	- Explaining energy conservation <i>Participating in conservation activities such as tree planting and recycling</i> - Discussing the best uses of energy	<i>Local environment</i> - Policies and strategies such as: - Renewable energy policy - Bio-fuels policy - Climate policy - Climate change response strategy
<i>Energy production and conservation in the local area</i>	analyse types of energy used and conservation measures undertaken in the local area	- Use and conservation of energy - Conservation measures: - reforestation - use of energy efficient technologies	<i>Conducting survey on energy conservation in the local area</i> <i>Making energy conserving technologies such as: -biogas digester and tsotso (thin branch sticks) stove</i> <i>Note: Learners are encouraged to form energy conserving clubs</i>	

NB. In bold italics are suggested examples of possible individual and group-based learner-centred activities and learning approaches with the potential to utilise experiential learning and local contexts.

Figure 4.2: Suggested Individual and Group Learner-centred Activities in Syllabus 4022.

Building on such an example, it was possible to come up with Table 4.2 which summarises such topics and related possible learner-centred activities found in the whole form 1 to 4 geography syllabus.

Table 4.2: Examples of Potential Learner-centred Topics and Activities in Geography Syllabus 4022.

Examples of possible learner-centred syllabus topics	Suggested possible individual or group-based learner-centred activities	Syllabus page
Topic 1: Weather forecasting	Learners gather and record indigenous knowledge system (IKS) weather information.	14-15
	Learners forecast the weather using IKS.	
Topic 2: Landforms	Modelling landforms and landscape in the local environment.	16
Topic 5: Energy and power	Modelling power generation.	19
	Formation of learner energy conserving clubs for collaborative learning.	52
	Making energy conserving technologies such as: biogas digester and <i>tsotso</i> (thin branch sticks or wood shavings) stove.	54
Topics 3 and 4: Ecosystems and Natural resources	Collection of locally found natural resources	18
	Developing a sustainable environmental management plan	40
	Participating in constructing fireguards, planting trees and controlling soil erosion	34
	Adopting degraded local ecosystems and rehabilitating them Learning for agency	52
Topic 9: Agriculture and Land reform	Educational tours of local farms	58
	Proposing/undertaking small agro-business projects.	70
Topic 7: Minerals and Mining - small scale mining in Zimbabwe	Identifying challenges and solutions to small scale mining – use of resource persons	56 - 57
Topic 10: Manufacturing industry	Educational tour of a local industrial site.	44, 59
Practical work	On-going individual learner continuous assessment tasks and projects on various topics	75

Apart from the tabulated learner-based activities in Table 4.2, the geography syllabus suggests the use of learner-centred approaches such as games, role play and simulations, and utilising learner and community knowledge and resource persons. Of note is the close similarity of these geography-related learner-centred approaches to

those found in extant literature (Kagoda 2009:27) as shown earlier in Section 2.14. The suggested syllabus topics include those that encompass aspects of indigenous knowledge systems (IKS) and everyday experience such as weather forecasting. The syllabus further recommends going on educational tours and fieldwork surveys, for example, in topics to do with agriculture and land. The evidence in Figures 4.1 and 4.2 shows that the new geography syllabus contains many instances for potential learner-centred approaches as listed in the activities and resources columns of the competency matrix (Geography Syllabus 4022: 48-73). These stipulated examples of potential learner-centred individual and group-based in-class and out-of-class activities span all the ten syllabus topics. In the light of these examples, it can be surmised that the new geography syllabus promotes the possible use of a learner-centred pedagogy as advocated by the *ZCF 2015-2002* curriculum and instructional reform.

There was a need to find out whether teachers, the implementers of these suggested learner-centred instructional changes, actually understood and enacted them. This was premised on the logic that it is one thing to have documents stipulate desired change and yet another to have implementers understand the policy requirement and enact it correctly in the spirit intended by curriculum designers. Consequently, I proceeded to solicit teachers' understandings of and actions on the recommended instructional approaches. The thrust of the resultant interviews was *how helpful the teachers found the new geography syllabus as a guide for adopting learner-centred teaching-learning approaches and learner activities in lessons*.

A teacher interviewee, Mrs Gumbo, acknowledged the guidance of the syllabus on possible use of active learning in various topics saying:

The syllabus competency matrix is very helpful in directing one's teaching through stated objectives, suggested teaching approaches and possible learner activities. So one can easily see where to use learner-centred teaching.

However, she further echoed sentiments similar to those of Mr Mtero, cited earlier, on the need for materials to supplement the official policy stipulations in documents like the *ZCF* document. Her view was:

Together with the geography syllabus 4022, I could benefit from (in the context making use of) written materials with detailed descriptions or cases of some learner-centred lessons in some topics.

On the syllabus coverage of learner-centred approaches, Mr Mtero held ideas that contrasted with those he held on the *ZCF*. Instead of emphasising the need for supplementary materials, Mr Mtero thought that:

The use of learner-centred approaches advocated for in the syllabus has been an important feature of geography teaching for a long time. The new geography syllabus is highlighting long established methods of teaching the subject such as learner-centred teaching. There is nothing new in the call to use learner-centred activities such as fieldwork. It is really 'business as usual' as far as I am concerned.

A perusal of the previous Zimbabwean Geography Syllabus 2248 for forms 3 and 4 indeed confirms the inclusion of learner-centred approaches like use of fieldwork and games and simulations (Geography Syllabus 2248). It has earlier been found out from extant literature the current call by Geography Syllabus 4022 to use learner-centred pedagogy in geography builds upon a long established and veritable subject tradition. (Refer to Section 2.14) While such a longstanding tradition may explain teachers' 'business as usual' attitude regarding the *ZCF 2015-2022* drive for learner-centred approaches, as typified by Mr Mtero, such a view has the potential of watering down the urgency for, and teacher advocacy of, the intended learner-centred instructional reform. The reform pertains to all curriculum subjects as part of, a broader drive for learner-friendly changes which encompass continuous assessment and competence-based education.

Although there is emphasis on the need to adopt learner-centred pedagogy and learner active involvement in curriculum documents such as the *ZCF* document and the geography syllabus, teacher interview responses suggest that these stipulations, could have been augmented, made clearer and more useful through additional supplementary and illustrative materials. I made an observation that teachers like Mr Mtero who view the new syllabus topics and activities as 'business as usual' may run the risk of not seeing or reading the broader context of the current learner-centred drive. As earlier noted policy documents emphasised that "(e)ach teacher shall gain ownership of the curriculum, develop an in-depth knowledge of content and the appropriate teaching methodologies and approaches" (Circular No. 2 of 2017:9 and Ministerial Launch

Statement *Ground Zero Getting Traction*, Slide 24). The same invocation for a deeper and studied understanding was echoed in the *Teachers' Guide* document, even though this document became available to teachers later on compared to other documents. The *Teachers' Guide* instructs teachers that "... it is important that you read the full edition of the Framework to appreciate what is expected of you in the new curriculum" (2016:6), and "to up-date yourself in terms of content through research and capacity development for you to deliver with confidence." (2016:24). Such in-depth knowledge of content and appropriate teaching methodologies go beyond a mere rendition of long-established practices and a 'business as usual' approach. They involve what Noddings terms "... more connections among subjects" (2013:402) and imparting what *The Partnership for 21st Century Skills* describes as "the skills students need to succeed in work, school and life" in a knowledge economy of the 21st century (21stcenturyskills.org., 2008:2).

The interviews on the geography syllabus had teacher participants inadvertently venting other concerns they had on the geography syllabus. These concerns were captured in Mrs Musi's response to the question of how helpful she found the syllabus with regards to coverage on learner-centred teaching-learning approaches and learner activities. Overall she was quite positive on the syllabus as a suitable guide on learner-centred instruction. However she complained that:

It is difficult to use the structure of the syllabus because part of some topics are taught in form 3 and the other part of the same topic in form 4. This makes an already lengthy syllabus too long.

I pursued these two issues of (i) syllabus topic fragmentation in which some topics are taught in form 3 and the other part of the same topic in form 4; and (ii) making an already lengthy syllabus too long, with the other teacher participants, including Mrs Musi.

4.7.3.1 Syllabus 4022's problematic spiral organisation

Taking up the cue from Ms Musi's suggestion that the new syllabus was problematic due to its fragmented content coverage, I asked Mrs Musi to explain her observation. Mrs Musi explained thus:

The spiral approach or structure of the syllabus has part of some topics covered in form 3. The other remaining part is to be covered in form 4. An example is the sub-

topics *Air Masses* in form 3 and then *Frontal Systems* in form 4 which both fall under the broader topic *Weather and Climate*.

Prodded to clarify this shortcoming, Mrs Musi expressed her misgivings for the spiral approach or organisation as set in the geography syllabus because:

... the approach disintegrates the sub-topics thereby inhibiting effective continuous coverage of these topics.

I made further inquiries on this issue with other teacher participants, namely Mrs Gumbo, Mr Mtero and Ms Jowa as to whether they had encountered a similar problem in their coverage of the topic *Weather and Climate* as they taught forms 3 and 4. Unfortunately Mrs Gumbo and Ms Jowa had not experienced this problem as they were yet to teach the *Weather and Climate* topic at form 4 level. However, Mr Mtero affirmed Mrs Musi's difficulty in handling the topics *Air Masses* and *Frontal Systems* separately in form 3 and 4 as prescribed in the syllabus Scope and Sequence Matrix (Geography Syllabus 4022 Section 6.1). He observed that:

Using the syllabus' spiral approach, the topics *Air masses* and *Air masses affecting Zimbabwe and southern Africa* are to be covered in form 3. Then in form 4 the related topics on *Temperate depressions*, *Frontal systems* and *Tropical cyclones* are to be covered. However, I feel that a continuous coverage of these topics in form 3 makes it easy for learners to understand these topics which are new for learners at this level.

Given this issue of apparent fragmented content coverage in the new syllabus and the challenges it seemed to bring to the teaching and learning of the new geography curriculum, I scrutinised the syllabus to determine how prevalent such content fragmentation was. My scrutiny of Section 6.0, the Scope and Sequence Matrix, of the syllabus document suggests that it is mainly three out of twelve syllabus topics that would be affected by the fragmentation of content at forms 3 and 4 in the manner portrayed by Mrs Musi and Mr Mtero. These topics are, in my determination, *Weather and Climate* (Section 6.1, page 7), *Environmental Management* (Section 6.8, page 11) and *Population* (Section 6.11, page 12).

To both Mr Mtero and Mrs Musi, I inquired as to how the challenge of discontinuous coverage could be solved. Mr Mtero explained what he did and his assessment of it when he had to teach the topic *Weather and Climate* in form 4 using the spiral pattern of the syllabus:

To ensure adequate learner understanding when using the spiral approach and learner-based learning set in the syllabus, we had to briefly revisit the form 3 topics so as to pick up from where we had left. This helped to contextualise the form 4 topics which we were now covering. Such an approach however is time consuming and makes an already lengthy the syllabus lengthier.

Similarly, Mrs Musi's suggestion was that:

There is need to cover the form 3 and 4 topics at once as a block like we used to in the old Geography Syllabus 2248. I am for the spiral approach to syllabus content organisation by all means. However, this should be at two-year intervals that is; cover a topic at once for the form 1 and 2 level and also at once for the form 3 and 4 level and so forth instead of fragmenting, though still operating spirally, at each form level as in the new syllabus.

Discernible from the interviewee suggestions are two main reasons for possible diversion from the new syllabus' suggested spiral coverage of the topic on *Weather and Climate* at form 3 and form 4. The first is the need to ensure deeper learner understanding by adopting a block or continuous coverage. Secondly, it affords a quicker syllabus coverage that obviates having to re-teach topics and correctly orient learners after some break in covering the topic. According to both teachers, Mr Mtero and Mrs Musi, re-teaching had the disadvantage of making lengthier an already lengthy syllabus.

These views by the interviewees had a snowballing effect of raising issues which I found necessary to pursue to have a clearer perception of how well the syllabus, as perhaps the only official document in the hands of the teacher on a daily basis, contributed to the enactment of learner-centred pedagogy in middle level or form 3 and 4 secondary school classrooms. This study terms participant teachers or classrooms middle level secondary since, as defined earlier in chapter 1, the form 3 and 4 levels constitute the middle two-year block of the six-year Zimbabwean secondary school system. Thus the form 3 and

4 two-year block is sandwiched between the first lower form 1 and 2 two-year block and the last upper form 5 and 6 two-year block. The snowball issues are threefold and relate to: (i) how permissible is it for the teacher to deviate from the sequence of topic coverage suggested in the syllabus, (ii) the new syllabus as a lengthy document to be implemented through learner-centred pedagogy, and (iii) the place of deeper content understanding by both teacher and learner for effective learner-centred pedagogy.

4.7.3.2 On deviating from syllabus sequence of content coverage

The continuous or block teaching of the topic *Weather and Climate* suggested by two teacher participants, Mrs Musi and Mr Mtero, deviates from the order prescribed in the national syllabus by necessitating the teaching of some form 4 topics at form 3 level. The ZCF blueprint lists some of the expected teacher characteristics such as being "... interested and participates in the development of customised curricula and learning materials, as well as the establishment of flexible plans of study in compliance with the school autonomy principle [and] possesses the capacity to identify learning problems and provide appropriate support" (*Zimbabwe Curriculum Framework*, 2016: 44-5). In the context of this stipulation on 'customised curricula and learning material' and 'the capacity to identify learning problems and provide appropriate support', the deviation suggested by the two participant teachers is thus acceptable on the basis of this policy stipulation. I also sought the opinion of a higher authority, namely a curriculum policy custodian in the form of a District Schools Inspector (DSI), on this issue of deviating from the syllabus order of content coverage. I inquired on the permissibility and implications of deviating from the officially mandated order when implementing the syllabus in the manner suggested by Mrs Musi and Mr Mtero. The DSI advised that:

... [s]uch deviation would generally be tolerated as long as it does not short-change learners and is pedagogically justified and well documented.

He went on to suggest that these kind of issues were what DSIs and other policy custodians would expect local members of a subject association to discuss and thrash out. Unfortunately neither Mr Mtero nor Mrs Musi were active members of the Harare Province Geography Association (HAPROGA), a kind of professional learning community (PLC) of geography teachers, so they could not have benefited from the

possible teacher collegiate interaction on this issue. The deviation suggested by both Mrs Musi and Mr Mtero represents a degree of curriculum localisation in the interest of enhanced learner understanding and a faster coverage of the syllabus. For these two reasons it should be viewed as some form of learner-centred change since it served the interests of learners.

4.7.3.3 The need for a deeper understanding of subject content

Policy documents such as *The Curriculum Review National Report, ZCF 2015-2022* blueprint, *Ground Zero: Getting Traction, Circular Number 2 of 2017* and the *Teachers' Guide* were analysed with regards to what they propose as an ideal relationship between learner-centred teaching and learning and teacher understanding or mastery of the subject matter. The foundational document to the ZCF curriculum reform process, *The Curriculum Review National Report*, recommends that the teacher be, among other attributes, a facilitator and enabler of learning who makes learners active participants and co-constructors of meaning in order to teach learner-centred lessons (*Review National Report*, 2015). In tandem with this, two flagship policy documents developed from the *National Review* document, both reiterate that “[e]ach teacher shall gain ownership of the curriculum, develop an in-depth knowledge of content and the appropriate teaching methodologies and approaches” (*Ground Zero: Getting Traction*, Slide 24; *Circular No. 2 of 2017*:9). These recommendations stress a classroom teacher who is conversant with both the subject content to be taught and the learner-centred teaching approaches to be used. The *ZCF 2015-2022* blueprint further highlights that the teacher should allow:

- a) Learner construction of knowledge
- b) The development in learners of a range of knowledge, skills, values and attitudes representing “a significant broadening of the range of domains in which we expect achievement from learners” (*Zimbabwe Curriculum Framework*, 2016:10).
- c) Applied learning or learning in context emphasising analysis and problem solving,
- d) Learners to learn how to learn so that learning becomes a life-long activity for which schools must prepare their learners.
- e) Participatory and learner-centred and interactive methodologies

- f) For many varieties in learning styles (*Zimbabwe Curriculum Framework*, 2016: 10).

These expected teacher attributes, if well deployed, as the foregoing list suggests, envisage learners who are knowledgeable of the subject and are to operate at higher cognitive levels such as analysis and problem solving (refer to bullet three above). The *Teacher Guide* as earlier noted in **Section 4.7.3** also underscore these teacher attributes.

In articulating the need for continuous coverage of content, Mr Mtero, as quoted earlier, suggested similar teacher and learner competences when he advised on the need “to ensure adequate learner understanding [...] and learner-based learning stipulated in a given syllabus ...” I probed him to explain his understanding of the link between learner-centred teaching and learning on the one hand, and the deeper understanding of the subject by the teacher and learner on the other. In his words, he responded:

The requirement to use learner-centred approaches means that the teacher is well versed on subject content. To come up with learner-centred activities which lead to deeper learner understanding, implies that the teacher understands the content on which such activities are based.

In response to a similar query, another teacher, Ms Jowa, echoed more or less similar sentiments thus:

For the teacher to be a facilitator or guide, as we have come to understand learner-centred classrooms to be from induction workshops we have attended on the new curriculum, it means that he or she is able to organise the classroom that way. In teacher-dominated teaching, it is easy to just regurgitate content but learner-centred teaching calls for having pupils learn from created situations or supplied resources. The ability to create such situations, to me, means the teacher has to have a deeper understanding of the content and hence is be able to apply it so that learners are active.

On the basis of the policy documentary evidence discussed hitherto, and the submissions from participant teachers, it can be surmised that an in-depth teacher understanding of subject content is *sine qua non* to successful learner-centred teaching and learning that in turn enhances learner understanding.

4.7.3.4 Lengthy syllabus with the potential to inhibit learner-centred pedagogy

Under Section 1.4.1 on *Time Allocation in the new Geography Forms 1 – 4, 2015-2022 syllabus*, it is stated that:

... [f]ive (5) periods of 40 minutes per week should be allocated for adequate coverage of the syllabus. The teachers should allocate time appropriately for learners with individual special education needs. Educational tours should be undertaken at least once a year. (Geography Syllabus 4022, 2016:3).

This is a departure from previous practice where geography was allocated four periods per week. In stating that five periods are needed for ‘adequate coverage’, the syllabus designers are cognisant of the increased content and demands of the new syllabus. I undertook a comparative content analysis of the previous Geography Syllabus 2248 and the new competence-based Geography Syllabus 4022 and associated documents to identify the areas of departure. In contrast to the previous syllabus, the main additional features of the new geography syllabus are:

- i) Geographical Information Systems (GIS) [Syllabus Competence Matrix; Geography Forms 1 – 4, 2015-2022 Syllabus, Topic 5, page 66]
- ii) Adoption of continuous assessment that involves learner community-based research projects or tasks [Geography Forms 1 – 4, 2015-2022 Syllabus, Section 8.2 Scheme of Assessment, pages 74-76].
- iii) Recommended use of learner-centred teaching-learning for syllabus topics. (ZCF 2015-2022 and Table 4.2 above).
- iv) Inclusion of ten cross-cutting themes, some of which like financial literacy and enterprise skills are new to the subject (Geography Forms 1 – 4, 2015-2022 Syllabus, Section 1.6, pages 3-4, cross cutting themes).

Commenting on the expanded syllabus, Mrs Gumbo, one of the teacher participants, affirmed the reason for the increased time allocation thus:

The new syllabus has lots of new things such as; new content to cover, learner-centred teaching approaches and continuous assessment which tend to generally require more time. Students have to undertake continuous assessment tasks or projects. These require lots of time and out-of-class activities. As a result geography has officially been allotted five slots (teaching periods) a week instead of the previous four.

Mrs Musi, yet another participant, commented on the length of the new syllabus in these words:

I was wondering how it could be possible to teach geography, looking at the number of topics that should be covered in one year. Twelve topics are too many for form 3 level. The syllabus seems to be too long and it's not possible to cover it in the 3 terms or 1 year allocated on the school calendar. In the old syllabus, the 12 topics were covered in 2 years, physical in form 3 and human in form 4.

Although the official requirement is that five periods be allocated to geography per week, all the four teacher participants testified that only four periods instead of five had been allocated to geography in their schools. When I inquired as to what occasioned such common under-allocation of teaching-learning time, the answer by one teacher participant, Ms Jowa, confirmed the sentiments of the other teachers in that:

The new curriculum has increased the amount of content in nearly all subjects including geography. The school administration has found it difficult to give us the stipulated weekly subject periods because the curriculum is overloaded. With limited time, the adoption of learner-centred pedagogy becomes difficult as we have to cover the syllabus using teacher-centred approaches in the limited time available.

This response illuminates the situation in the studied schools as further affirmed by the school head of a long-established mission school, Mr Tore, who decried the problem of allocating less than the officially stipulated number of teaching periods in the new curriculum. He expressed his misgivings in these words:

The new curriculum makes a lot of demands such as new content to be covered, out of class projects and tasks, sporting and cultural activities, but the school term remains of the same duration. It has been difficult to try and accommodate the required changes in the timetable. Thus, in almost all subjects we have found it impossible to allocate the stipulated periods to learning areas. Hence we have mostly maintained the previous weekly period allocations while urging teachers to find innovative ways of covering the new competence-based syllabuses.

The challenges of an overloaded curriculum and problematic timetabling also received attention from another quarter in the form of unsuccessful PTUZ petition to the Parliament of Zimbabwe in 2017. The PTUZ submission highlighted that; "... timetables are completely overcrowded ... schools with hot sitting [double sessions] can't function. [T]eaching cycles are affecting sequence of school syllabus from 5 to 6-day cycles" (PTUZ March, 2017). These comments, although expressed in hyperbolic language as

predictable of a teachers' trade union body, however underscore the effects of overloading in the new curriculum which research participants highlighted.

The responses from teacher participants and the one school head on under allocation of timetable space emphasise the difficulties of allotting the officially mandated time slots for geography and other subjects. This is in spite of the stated requirement from the then MoPSE Minister that “[s]chools should adhere to the optimal time allocated in each individual learning area syllabus” (Minister Dokora in Ministerial Launch Statement, *Ground Zero: Getting Traction*, 2017, Slide 16). The responses by one school head and the teacher participants highlight the fact that the new geography syllabus is loaded with content. This makes it, in the opinion of some teacher participants, too long to be covered in the school time allocated. Such under-allocation of teaching time has, as observed by one participant Ms Jowa, the effect of forcing teachers to continue using teacher-centred pedagogy as a way of quickly covering the new lengthy syllabus. Resorting to the orthodox teacher-centred pedagogy in this manner represents a case of curriculum and instructional reversion. Literature suggests that curriculum and instructional reversion, that is, the tendency for established practices to persist even in the light of a call for change, become prevalent when many new things are demanded of both the teacher and learner (Tabulawa, 1998, Desimone, 2002; Lefstein, 2008). The challenge of curriculum overload as depicted here has the potential of negating the quest for learner-centred pedagogy in that the lengthy competence-based syllabus forces teachers to use teacher-dominated pedagogy thereby vitiating the learner-centred pedagogy through which such a quest should be consummated. This represents a paradox of good intentions. A similar situation of teacher reversion to orthodox teacher-dominated pedagogies was earlier reported by teacher participants as possibly due to inadequate teacher induction. Inadequate induction of teachers could lead them to eschew learner-centred pedagogy in teaching new content such as GIS. This is because they are not very knowledgeable of the topic and have not been sufficiently inducted. Intended changes would thus be proscribed by the continued existence of adversative conditions. It can be observed that the challenges of limited time and inadequate induction, as reported by participant teacher interviewees, smack of the proverbial storing of ‘new wine in old wine skins’ with no capacity to store the wine. It can be concluded that the challenge of curriculum overload

has the potential of negating the quest for learner-centred pedagogy encased in the *ZCF 2015-2022* reform.

The foregoing sections have shown how the distribution, access and the content of policy documents such as ministerial circulars, official pronouncements, materials such as syllabuses, and processes of induction have a part to play in the implementation of a new curriculum. These processes and provisions contribute to the successful or unsuccessful enactment of intended curricular and instruction reforms such as the learner-centred drive of the *ZCF 2015-2022*. The make or break of these processes and curricular materials may, to a large extent, depend on the nature and availability of learning support materials (LSM) such textbooks. It is noteworthy that participant teachers like Mr Mtero and particularly Mrs Gumbo desired supplementary materials to guide their efforts at teaching learner-centred lessons over and above the stipulations in the *ZCF 2015-2022* document and the new Geography Syllabus 4022. In the context of the present research there was a need to examine the kinds of LSM that were available to support the learner-centred pedagogy initiative in the schools studied.

4.8 The Availability of New Curriculum Compliant Textbooks and LSM

The successful enactment of instructional policy or innovation is usually on the back of adequate learning support material (LSM) provision. Crucial forms of LSM are the textbooks available on the new curriculum. Textbooks as teaching learning support materials are, in African contexts, almost the default or universally expected LSMs (Moulton, 1994). The need for appropriate LSM that includes textbooks to support the new *ZCF 2015-2022* curriculum is widely acknowledged in available policy documents and related publications (Dokora, 2017; Zindi, 2018; *Aide Memoir* to a 2017 Education Sector Joint Review, 2018). The ministerial statement, *Ground zero: Getting traction*, marking the official launch of the competence-based curriculum in early 2017, is awash with promises to provide requisite learning support materials on the new curriculum. In a twenty-seven power point presentation, the then Minister of the MoPSE promised LSM provision thus, “[t]he successful implementation of the Curriculum Framework will be dependent on a number of critical inputs which include ... diverse teaching and learning materials” (Slide 16) and that “[t]he Ministry has already deployed resources at cluster

level for, inter alia, production of teaching and learning materials that are appropriate for the learning needs of all learners” (Slide 21). Additionally, in an early 2017 media release titled *Our Curriculum, Our Journey*, in answer to a clientele-targeted and self-posed publicity question, *Are textbooks that speak to the new syllabi now available on the market?* MoPSE claimed:

The Ministry evaluated the current textbooks against the requirements of the new syllabi. Most of the existing textbooks have content that is relevant to the updated curriculum, ranging from 60% to 100%, depending on the extent of the changes from the old to the new syllabi. Schools should continue to use these textbooks in the short term. Gaps identified in existing textbooks will be closed through teachers’ guides and supplementary materials. Textbooks are being developed for the new learning areas, and some are already available in the market. *As with the other learning areas, teachers’ guides and supplementary materials are being produced and should begin to reach schools before the end of the first term of 2017* (2017:1). (Italicised words my own emphasis).

The media release further claimed that the MoPSE had briefed publishers “on learning areas so that they may develop relevant textbooks” (*Our Curriculum, Our Journey*, 2017:1). In addition, according to an entry in an *Aide Memoir* to a 2017 Education Strategic Sector Review Report, “[t]he curriculum implementation process should be backed by adequate teaching and learning materials such as textbooks, teachers’ guides, computers and other equipment and teachers qualified to teach the new learning areas” (*Aide Memoir* 2017 Notes, Education Strategic Sector Review, 2018:1).

It took almost a year from the launch of the competence-based curriculum in early 2017 for the promised *Teachers’ Guides* to be readily available in schools in electronic format or e-documents. The Curriculum Development and Technical Services (CDTS) Director, a middle level policy custodian, in an interview in early 2018, had this to say:

... [t]he lack of funding is the main reason for lack of progress in this area, that is printed copies. However it is pleasing to note that textbook writers on the competence-based curriculum are busy publishing the requisite and new syllabi-complainant materials for the various learning areas. On our part as MoPSE and CDU we have now availed to schools Supplementary Materials like Teachers’ Guides in subjects such as geography.

The foregoing evidence on the LSM for the new curriculum shows that the Ministry was unable to provide *Teachers’ Guides* and *Supplementary Materials* timeously as had been

promised at the time of launch of the new curriculum in early 2017. The MoPSE, on its part, acknowledged logistical problems relating to the implementation of the new curriculum including the supply of teachers' guides and supplementary curricular materials in particular (Dokora, 2017). I asked Mrs Gumbo, one of the teacher participant, what she felt about the delay in the availability of the promised teachers' guides and supplementary curricular materials. She commented that:

... [i]n absence or delayed availability of the promised teachers' guides and supplementary materials, teachers seeking to abandon teacher dominated methods for learner-centred pedagogy find it difficult to do so for lack adequate guiding materials.

Due to the delays of the MoPSE promised *Teachers' Guides* and *Supplementary Materials*, this meant that textbooks accessed from the market or book publishers and sellers were initially the main forms of LSM available. I found it necessary to find out what textbooks classroom teachers used and how well these guided teachers in using learner-centred methods in geography lessons.

I scrutinised the available geography textbooks in the studied schools to find out how compliant they were with the quest for learner-centred teaching and learning. As pointed out earlier, the then Minister in 2017 said that the MoPSE had evaluated the existing textbooks for various subjects against the requirements of the new syllabi (*Ground Zero, Getting Traction Document*, Slide 16). The CDU is the MoPSE unit responsible for evaluating and approving LSM and textbooks curricular materials to ensure that these are in line with the aims of any prevailing curriculum (Interview notes with Curriculum Development Unit senior official and CDU booklet 1990).

In the schools studied, there were five geography texts that were used by teachers for the new geography syllabus. These were *Step Ahead: Learner's Book 3*, *Step Ahead: Learner's Book 4*, *Step Ahead: Teacher's Book 3*, *Step Ahead: Teacher's Book 4*, and *Focus on Geography Book 3*. These textbooks had been in use before the new curriculum but had been updated for the new curriculum. I scrutinised the textbooks with respect to their coverage of the new curriculum and specifically for their coverage of learner-centred

teaching and learning aspects. My scrutiny of these textbooks highlighted the following findings:

- i) The new topic on GIS was covered in four of the five analysed geography textbooks.
- ii) Notably one publisher updated the content for form 1 to 4 levels. The texts by this publisher now had separate new *Teacher's Guide* series from book 1 to 4 and a former *Learner's Book* series from book 1 to 4. The *Teacher's Guides* have learner-centred aligned exercises and tests to help teachers implement learner-centred methods.
- iii) No textbooks and teachers' guides had fully depicted exemplars of learner-centred lessons and continuous assessment tasks.
- iv) The main challenge with regards to textbooks availability was that schools generally purchased limited copies which are only used during lesson time and learners cannot use them at other times. However, it was observed that a few learners had personal copies bought for them by their parents or guardians.

The nature of textbook revisions to incorporate the learner-centred curriculum is aptly captured in the words of Curriculum Development and Unit (CDU) Director, a middle level policy custodian thus:

Generally, the textbook writers and publishers made cosmetic changes in line with the new curriculum. This was due to a rush to capitalise on the high demand for relevant texts which ensued with the imminent launch of the competence-based curriculum in 2016 and then after the launch in early 2017. Thus, the textbooks are broadly relevant to the new curriculum hence they were approved. Teachers had to have something to work with as they implemented the new Geography Syllabus 4022.

Commenting on the availability of LSM and textbooks that are compliant to the competence-based syllabus, Mrs Gumbo, one of the teacher participants said:

Lack of resources is a major impediment in the implementation of the new curriculum. Aspects which have been moved between classes or forms imply that textbooks should have been out already incorporating those aspects. It is unfortunate that one of the form 3 texts approved for the new curriculum is a reproduction of the old one. The main difference being colours. ... This book should not have been approved because it is a rip-off.

The conclusion from scrutinising the available textbooks is that they have only been skin-deep revisions as most publishers, in the rush to produce for the new curriculum as suggested by a senior CDU, changed few topics inside the book. The cover pages were conspicuously changed and had the label '*New Curriculum*' prominently visible to possibly catch the eye of buyers.

As I observed classroom transactions in most schools I noted that teachers brought in a pack of 10 to 15 textbooks which learners had to share during a given lesson. I inquired of school heads as to; *Why schools could not avail more textbooks for student use?* In explaining the issue of a limited number of textbooks available for use by learners in geography, this school head of a government school located in high income suburbs of Harare had this to say:

The school cannot afford to buy lots of textbooks for any one subject area since in all subject areas there are some updated texts that are compliant with the new curriculum. It is better to have a few texts for each and all subjects than having many texts for a few subjects while most subjects are without a copy of the new textbooks. We have a standing policy of encouraging students to buy their own copies. This has proved difficult as parents or guardians seem not able to afford the costly textbooks. Only a few pupils, seemingly from well off family backgrounds, have an own textbook in one or so subjects. We could do with the promised Supplementary Materials and Teachers' Guides from the Ministry as these are usually subsidised and sometimes free of charge.

Thus, though the MoPSE Minister at the launch of the new curriculum stated that new curriculum compliant textbooks "... are already available in the market" such availability does not easily translate into ready access due to prohibitive prices of these texts. According to a brief survey I conducted in mid-2017, the average book shop or retail textbook price was around twenty United States dollars (US\$20). Furthermore, the non-availability of the MoPSE-CDU promised low cost *Teachers' Guides* and *Supplementary Materials*, at least until early 2018, may have served to make LSM for the new curriculum inaccessible for schools and learners from low income backgrounds.

On the occasion of the launch of the new curriculum in 2017, the then Minister of Education promised that *Teachers' Guides* and *Supplementary Materials* were being

produced and were to be available in schools by the end of first term (or first quarter) of 2017, that is within a period of three months. However it took almost a year for e-copies of *Teachers' Guides* to be readily available in schools and to teachers. The MoPSE, on its part, acknowledged logistical problems relating to the implementation of the new curriculum including the supply of teachers' guides and supplementary curricular materials in particular (Dokora, 2017). Mrs Gumbo, one of the teacher participant, had this to say about the delay in availing the promised teachers' guides and supplementary curricular materials:

... [i]n absence of the promised teachers' guides and supplementary materials, teachers seeking to abandon teacher dominated methods for learner-centred pedagogy find it difficult to do so for lack adequate guiding materials.

The limited learner access to updated textbooks, the delayed availability of the promised MoPSE *Supplementary Materials* and *Teachers' Guides* and shortage of other LMS in geography had the potential of being complicated by the many changes which accompanied the learner-centred pedagogy thrust of the competence-based curriculum. The following section explores the many changes which accompanied the learner-centred pedagogy thrust of the competence-based curriculum and the likely confounding effect on the main drive to implement a learner-centred pedagogy instructional innovation.

4.9 Learner-centred Pedagogy in Geography: not a stand-alone innovation

The new geography syllabus, as has previously been noted, recommends learner-centred approaches through active learning engagements in topics like resource management, farm and factory studies (Geography Syllabus 4022: 68 -70). However, the requirement to adopt learner-centred pedagogy in geography, as in other subjects, is not a stand-alone innovation but a call for change among many envisaged changes. As an example, one important change is in Section 4.0 where the new geography syllabus has as its first objective that learners should be able to “demonstrate basic knowledge of geographic information systems (GIS) in resource management, (and) interpret topographical maps, photographs and satellite images” (Geography Syllabus 4022:3). This represents new content for the geography learning area which requires the use of computers and related information communication technologies (ICTs) gadgets.

Apart from these new content areas and the concomitant need to use information communication technologies (ICTs), Section 6.1 specifies ten cross-cutting or transversal issues which the geography teacher has to be able to integrate with the other syllabus content (*ZCF 2015-2022*, 2016:44). In the words of the geography syllabus such integration also “reinforces connections between learning areas and disciplines and promotes integrated learning” (*ZCF 2015-2022*, 2016:44; Geography Syllabus 4022:3-4). The aim is to have learners develop an appreciation of each of the following 10 cross-cutting concerns:

- 1) environmental issues
- 2) safety and health issues
- 3) disaster risk management
- 4) enterprise skills
- 5) sexuality, HIV and AIDS
- 6) heritage
- 7) climate change
- 8) financial literacy
- 9) gender
- 10) technology

Some of these cross-cutting themes like gender, financial literacy, enterprise skills and heritage issues are new content which the previous Geography Syllabus (2248) did neither have nor specifically mention. Additionally, the *ZCF 2015-2022* blueprint requires all teachers, including geography teachers, to teach for learner-exit competencies or exit profiles by stating that “[l]earner-exit profiles describe the acquired knowledge, skills, values, attitudes and attributes that a learner should possess as a result of their learning experiences” (*ZCF 2015-2022*, 2016:17). Specifically, the new curriculum is meant to equip school graduates with the following exit profiles:

- i) **Skills:** Critical thinking, problem solving, leadership, communication and team building, and technological skills;
- ii) **Knowledge:** Basic literacy and numeracy, business and financial literacy, and mastery of specific subject content;

- iii) **National identity:** Patriotism, recognition and valuing of national symbols, and participatory citizenship;
- iv) **Values:** Discipline, integrity, honesty, and *Unhu/Ubuntu/Vumunhu*;
- v) **Attitudes and dispositions:** Self-initiative and enterprising, self-managing, and ability to plan and organise (ZCF 2015-2022, 2016: 17).

Yet another change ushered in by the new curriculum is a new model of assessment which is a hybrid of assessment for learning, assessment as learning [Assessment is learning] and assessment of learning (Assessment Framework for Primary and Secondary Education 2017-2022, 2018; Harju-Luukkainen, McElvany and Stang, 2020). The Assessment framework goes on to explain that *assessment for learning* and *assessment as learning* constitute the continuous assessment (CA) component that is carried out as learning and teaching occurs whereas *assessment of learning* is the summative assessment (SA) administered at the end of a learning period in the form of public examinations (Assessment Framework for Primary and Secondary Education 2017-2022, 2018:10). This CA innovation is mentioned in all the three policy documents I selected for close scrutiny, namely the ZCF document (Chapter 6), the MoPSE-ZIMSEC Assessment Framework for Primary and Secondary Education document and the new Geography Syllabus 4022. Continuous assessment is also articulated in subject-specific guidance documents on continuous assessment tasks such as the *Teachers' Guide*. In addition, the news release *Our Curriculum, Our Journey* provides details on the changes to assessment methods linked to the new curriculum as follows:

- a) Continuous Assessment and Learner Profiling at all levels. Learner Profiling tracks and documents student performance on a range of competencies but does not carry a grade.
- b) Continuous Assessment contributes 30% of the final examination grade of learners in all terminal examinations; and
- c) The examination component of Continuous Assessment will be based on tasks completed during the final two years at each level i.e. grades 6 and 7 for primary school and forms 3-4 and 5-6 at secondary school (Our Curriculum, Our Journey , *Sunday Mail* 5 March 2017:2).

The adoption of continuous assessment, as noted earlier, entails the use of ‘*assessment for learning*’ and ‘*assessment as learning*’ techniques which were once combined with a ‘*continuous assessment tasks*’ component (ZCF 2015-2022, 2016:5; The Assessment Framework, 2018:10). The ZCF document explains the first two approaches in greater detail. First, *assessment for learning* is described as the use of classroom assessment to support on-going teaching and learning (ZCF, 2016:52). In *assessment for learning*, the teacher diagnoses the learning process to gauge weaknesses of learners for effective remedies. The ZCF document goes on to say that such assessment procedures are meant to foster effective learner-sensitive teaching and learning. Secondly, *assessment as learning*, as described by the ZCF document, is the use of a learning related task or activity in a specific subject as an opportunity for learners to advance their own learning (ZCF, 2016:52). The approach includes learner self-monitoring and peer assessments which enable learners to reflect on their own learning and identify weaknesses and strengths as they also receive frequent feedback from the teacher that further supports their learning. Learners should be able to set their own personal targets by reflecting on their own learning and making adjustments so that they achieve deeper understanding as learning continues (ZCF 2015-2022, 2016:52). While the two approaches, *assessment for learning* and *assessment as learning*, differ in their degree of teacher and learner involvement, the ZCF policy document goes on to outline the approaches’ common characteristic of promoting student-centred learning as given below.

In *assessment for learning*, the teacher does the assessment, diagnoses the learning and incorporates remedies in subsequent teaching and learning. In this way such subsequent teaching and learning becomes learner-sensitive since it utilises teacher identified learner strengths and weaknesses. However, in *assessment as learning*, both the teacher and learner diagnose the learning and use the identified strengths and/or weaknesses to improve subsequent learning. In *assessment as learning*, learners have a chance to peer review their performance, to self-reflect on it and to set personal targets for the future. Thus, on the basis the foregoing descriptions given in the ZCF policy document, *assessment as learning*, in contrast to *assessment for learning* entails greater learner involvement or more learner-centredness. However, both *assessment for learning* and

assessment as learning are more learner sensitive forms of assessment than *assessment of learning* or *summative assessment* approaches which were dominant in the pre-2017 ZCF reform period.

The aforesaid changes in assessment are of a twofold interest or significance to the present study, namely: (i) that they are changes additional to, but in tandem with, the learner-centred instructional reform; and (ii) can be the basis for determining the extent to which teachers understand and practise *assessment for learning* and *assessment as learning*. Such practice on and understanding of these new assessment approaches require new teacher skills, competences and roles, as acknowledged in the policy documents that I scrutinised. As an example, in preface remarks to the *Assessment Framework for Primary and Secondary Education 2017- 2022* policy document, the then Acting Director of the Zimbabwe Schools Examinations Council (ZIMSEC) underscores the need for new teacher roles and competences thus:

The inclusion of continuous assessment (CA) in the assessment model effectively means that teachers now play a key role in the assessment of learners. The role of the teacher in this new dispensation has been redefined to become that of both facilitator of learning and assessment. In this assessment model, ZIMSEC capacitates teachers to develop Continuous Assessment Learning Activities (CALA) and to moderate the assessments. The success of this new assessment paradigm is hinged on assessment competencies that teachers have. The teachers are both the engine and the vehicle that propel and drive the implementation of the updated curriculum, in terms of assessment. (MoPSE-ZIMSEC Assessment Framework for Primary and Secondary Education 2018:3)

As shown hitherto, the new curriculum also introduced another component of continuous assessment, namely the coursework-based and research-based tasks. The tasks were meant to contribute part (30%) of a learner's final examination mark at the end of form 4 (News Release Our Curriculum, Our Journey, *Sunday Mail*, 5 March, 2017:2). I interviewed participant teachers to establish their understanding and use of the three components of continuous assessment, namely *assessment for learning*, *assessment as learning* and *continuous assessment tasks*. In particular, I was interested in finding their reaction to these new assessment approaches and whether, in their understanding,

there was any link between these forms of continuous assessment and the use of learner-centred approaches.

With regards to understanding and practising *assessment for learning* and *assessment as learning*, one of the teacher participants, Mrs Gumbo, in early 2018, confessed;

I have not implemented assessment for learning and assessment as learning. I do not have adequate grounding in these approaches. However, for the continuous assessment task, I let my last year's form 3 classes have a go at this. The tasks proved to be time consuming engagements especially given that this was in the last school term of the year 2017- a busy term in which there were also public examinations for form 4s. The submitted projects were sub-standard, half-baked and in most cases 'dubbed' or copied products as many learners just copied from their colleagues. I am happy that MoPSE has discontinued the tasks in their original format so as to come up with other user-friendly versions of the tasks.

Mr Mtero, another teacher interviewee, highlighted his experience in implementing the new assessment practice of research-based tasks saying:

Tasks are occasions for knowledge creation. However, tasks have two major drawbacks to learners. One concerns the little time allowed for the tasks. The other pertains to the fact that students are expected to do tasks in all their subjects which may be 8 or 10 subjects. You can hear them grumbling and see their disgruntlement with all "these tasks" for which parents have to incur costs in buying materials like folders and paper. Tasks are thus a burden to both the parent and the learner. While the teacher is also a learner with this approach, the amount of supervisory work is rather heavy. The danger with tasks is that teachers abandon proper classroom teaching like use of learner-centred methods and end up dictating notes thereby creating time to complete these continuous tasks and cover the syllabus.

Thus, from the foregoing submission, Mr Mtero sounded a bit positive on the tasks as he portrayed them as occasions for generating knowledge on the part of learners and the teacher. Nevertheless, in concurrence with Mrs Gumbo's observation, he admitted that the tasks were burdensome. He further observed how tasks undermined possible adoption of learner-centred pedagogy as they left little time for learner-centred teaching in other areas of the syllabus.

As for another teacher, Ms Jowa, my initial interviews with her were almost aborted as she was engrossed in supervising continuous tasks at the time of the research in the last quarter of 2017. Ms Jowa decried the need for tasks saying:

... [g]iven the hurried nature of the tasks, the student projects are mostly fabrications not based on proper research - a process that learners do not even know and in which I, the teacher, have to handhold them through.

On the possible lack of adequate grounding on the continuous assessment approaches such as *assessment for learning* and *assessment as learning*, I inquired from the teacher interviewees as to whether they had not benefitted from the MoPSE's commitment that "all teachers ... school heads, learning area department heads are to be trained on continuous assessment (News Release *Our Curriculum, Our Journey*, *Sunday Mail* 5 March, 2017:2) and later on from the *MoPSE-ZIMSEC Assessment Framework* promise of "... building teachers' skills in the use of continuous assessment" (Assessment Framework for Primary and Secondary Education 2018:3). The common response on the question of whether teachers had received any training on continuous assessment was that they had not been trained as yet in the ZCF stipulated assessment techniques. Mr Mtero, a teacher participant, said:

I would need some induction so as to practice them (assessment for learning and assessment as learning) as part of my teaching.

Yet another teacher, Mrs Gumbo, remarked:

Oh! Yes! I have seen the ZCF document but I am yet to study it. I guess I have to find time in my busy teaching schedule to read what the document says on continuous assessment.

These varied teacher responses on continuous assessment speak of an innovation where teachers are still to find their footing through proper induction and for which their short-lived flirting with research-based tasks seemed to have added to their workload.

A number of conclusions can be drawn on the need to adopt continuous assessment as encased in the policy documents such as the *ZCF 2015-2022* curriculum blueprint, the *MoPSE-ZIMSEC Assessment Framework*, the curriculum policy implementation document, *Circular Number 2 of 2017* and the new *Geography Syllabus 4022*. Although the policy documents clearly spell out the need to adopt continuous assessment, this

was not possible in the first two years of curriculum reform implementation in 2017 and 2018. This was attested by a high ranking ZIMSEC official in an interview in the last quarter of 2018 thus:

... [t]his is mainly because, in spite of the official stipulation for continuous assessment approaches, the teachers and schools are yet to be inducted and to receive adequate guidance respectively on Continuous Assessment [CA].'

This non-implementation of continuous assessment is also borne out by the MoPSE Permanent Secretary, who is the highest public official in the ministry. Commenting on a related issue of low pass rates in the 2018 'O' and 'A' Level examination results, the Permanent Secretary, expressed the view that reasons for the low pass rate could be attributed to the absence of the continuous assessment component. In remarks alluded to her in *The Herald* newspaper of 1 April, 2019, when addressing education stakeholders, she commented:

... the 'O' and 'A' Level academic results for 2018. You will notice that this was the first examination [in November 2018] for our competence-based curriculum. 'O' Level pass rate was 32, 6 percent, while 'A' Level was 84, 7 percent. Pass rate at Grade 7 was 53, 42 percent. ... My ministry and Zimsec are working tirelessly to have the continuous assessment framework in place as soon as possible.

In this context, one may observe that the initial policy pronouncements at the launch of the new curriculum in early 2017 stipulated the need for continuous assessments. These needed to be backed with adequate and requisite pre-implementation preparations for successful adoption of intended changes. In the light of inadequate guidance, teachers, as brought out in their interview responses, continued with erstwhile learner-testing and summative assessment approaches instead of intended learner-centred continuous forms such as *assessment for learning* and *assessment as learning* techniques.

This section has provided evidence that the call for a learner-centred curriculum encased in flagship policy documents is no standalone invocation for change. Other changes which include the introduction of new content such as GIS, the need to mainstream cross-cutting issues, the requirement to teach for specific learner-existent competences or profiles and the adoption of continuous assessment, are all part of the expected changes. The explicit stipulation to adopt learner-centred pedagogy is thus

part of a mélange of expected epistemological, instructional and assessment changes which, as can be surmised from teacher participant interview responses, has the potential to result in superficial attention being paid to learner-centred teaching and learning. With regards to the rather too many expected changes accompanying the learner-centred pedagogy the advice by Honig (2006) is handy that such an crowded policy space may create reform fatigue and confusion in those that have to implement it (in OECD 2017:13). The resultant inadequate adoption of intended change also would reflect a failure to give enough time to pre-implementation preparations through adequate teacher induction. Provision of teacher induction would have enhanced understanding and, hopefully, uptake of the learner-centred innovation by local actors especially classroom teachers. Thus, as implementation of the competence-based curriculum proceeds apace, the expectation is that on-going monitoring and evaluation of the implementation process, as highlighted in policy stipulations, may correct some of these shortcomings. Consequently, the ensuing section examines the curriculum implementation monitoring and evaluation policy stipulations and how these inbuilt corrective interventions have helped redress some of the shortcomings noted in the implementation of the new curriculum.

4.10 Curriculum Implementation Formative Evaluation and Monitoring

Policy stipulations in official documents emphasise the need for implementation monitoring and formative or on-going evaluation of the competence-based curriculum. The *ZCF 2015-2022* flagship document calls for the schools inspectorate section and CDTs personnel “to superintend the implementation and monitoring of the new curriculum” (*ZCF 2015-2022*, 2016:48) in order to ensure constant feedback on the implementation process. During the official launch of the new curriculum in early 2017, the then Minister emphasised the requirement for curriculum implementation evaluation and monitoring in these words:

... [t]he responsibility for the quality of educational provision in individual schools at the local level rests with the head, teachers, parents, business and the community [... and] the District Schools Inspector (DSI) shall ensure that school heads are supervised in line with teacher professional standards (TPS) at least once every term (Minister Dokora in Ministerial Launch Statement, *Ground Zero: Getting Traction*, 2017; Slide 24).

The official Curriculum Policy Circular advises that:

[i]nternal and external supervision shall be undertaken to ensure effective implementation of the Curriculum. Heads shall ensure that teachers are supervised in line with Teacher Professional Standards (TPS) at least once every month (*Circular Number 2 of 2017*, Point 10.1 page 8).

The need for monitoring curriculum implementation is also highlighted in a *Curriculum Performance Framework (CPF)* or the *Performance Measurement Framework (PMF)* document published in 2018, a year after the commencement of the competence-based curriculum. The CPF, according to its consultant author, is meant to help MoPSE and stakeholders assess how well-planned activities and learning opportunities in the competence-based curriculum produce the desired goals and results or outcomes (Chikutuma, 2017). The Curriculum Performance Framework “... serves as the basis for enhancing transparency and accountability among education stakeholders (that include learners, schools, parents, local communities, industry, civic society and government)” (Chikutuma, 2017:7). Clarifying on the monitoring and evaluation thrust, the CPF suggests criteria by which the school system and the curriculum could be monitored, tracked and assessed with respect to the attainment of curriculum goals. The *Curriculum Performance Framework (2018:7)* gives the performance measurement criteria as:

- i) curriculum policy,
- ii) learner-centred pedagogy implementation (with reference to learner participation, achievement, attainment and equity),
- iii) relevance of syllabi for all learning areas,
- iv) book ratio,
- v) learning support materials preparation,
- vi) teacher professional development on the competence-based curriculum,
- vii) access to internet (computers) and use of computer-assisted learning in schools,
- viii) learner completion of continuous assessment tasks in various learning areas, and
- ix) school participation in School Annual Science, Sport And Arts Festivals (SASSAF) activities.

After the first year of implementing the competence-based curriculum in 2017, the MoPSE commissioned an *Implementation Formative Evaluation* study to evaluate the first year of the competence-based curriculum implementation. The *Implementation Formative Evaluation Report* published in early 2018 gave recommendations and actions related to the ZCF policy reform and implementation milieu which also touched on the learner-centred pedagogy. The *Evaluation Report's* recommendations and the MoPSE actions and responses on them, as captured in my interview notes with personnel in the MoPSE Research and Evaluation Division, are set out below:

- I. Reviewing of the continuous assessment regime. This led to a new 2018 Assessment Framework which has been scrutinised hitherto. The continuous task component was suspended in early 2018 pending a MoPSE reconsideration on this aspect.
- II. MoPSE was urged to engage stakeholders constantly on the competence-based curriculum through an effective communication strategy. No visible strategy had been effected by mid-2018 serve for regular MoPSE curriculum implementation processes and the Joint Education Sector Strategic Review sessions early every year as part of reviewing the execution of the Education Sector Strategic Plan for the period 2016 to 2020.
- III. Training of teachers in specific learning areas for effective implementation. (This was reportedly an on-going activity).
- IV. Resource mobilisation for successful implementation of the new curriculum. (This was reportedly an on-going activity).
- V. Policy alignment with regards to the requirements of the new curriculum and reconfiguring cross-cutting these vis-à-vis learning areas and subject electives. (This was reportedly an on-going activity).
- VI. Align teacher education under Ministry of Higher and Tertiary Education, Science and Technology Development with New Curriculum for Primary and Secondary Education. (This was reportedly an on-going activity).

Carrying out on-going monitoring and evaluation of the curriculum implementation process ensures that the theory-practices gaps are identified and possibly addressed

for successful enactment of intended, *albeit* centrally conceptualised instructional reforms such as the *ZCF 2015-2022* learner-centred pedagogy .

4.11 Overview on Policy Stipulations on Learner-centred Pedagogy

The research sub-question that guided the scrutiny of policy and related documents in this section was: *What are the ZCF 2015-2022 policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?* A number of findings and observations on learner-centred pedagogy policy stipulations with regards to teaching middle level secondary school geography in line with the competence-based curriculum have been identified. The 12 documents scrutinised in this section show that curriculum intentions, as plans and policy pronouncements, clearly articulate the need for learner-centred pedagogy, *albeit*, with variable emphases. In this regard, the needs assessment foundational document, namely the *Curriculum Review Process Narrative Report*, and the main flagship policy document, the *ZCF 2015-2022* curriculum blueprint, make a clarion call on the learner-centred pedagogy obligation for all subjects as part of the new competence-based curriculum. Other official curriculum operationalisation documents such as the MoPSE Secretary's *Circular No. 2 of 2017*, the *Geography Syllabus 4022*, the *Geography Forms 1-6, Secondary School Level 2015-2022 Teacher's Guide*, and the *MoPSE-ZIMSEC Assessment Framework for Primary and Secondary Education 2017- 2022* echo the requirement for a shift to learner-centric methods. These policy operationalisation documents stress the need to adopt related practices like continuous assessment, teaching for critical thinking, the mainstreaming of cross-cutting themes and teaching for specific exit-skills compatible with the 21st century knowledge economy and life in the global village (Dokora, as cited in the Foreword to the *Zimbabwe Curriculum Framework (ZCF) for Primary and Secondary Education 2015-2022.*, 2016:iv).

Inevitably, there has been dissonance between policy proclamations or stipulations and their adoption at school and classroom level with the later process generally lagging far behind. The call stipulating learner-centred pedagogy, encased in policy appropriate documents, did not reach the classroom teacher, who is the implementer of intended change, timeously and wholesomely due to a number of reasons. In early 2017, when the

new curriculum was launched, teachers did not easily access important documents like the *ZCF 2015-2022* blueprint and the geography syllabus due to limited hard copy availability and the electronic copy formats, as confirmed through interview data, were difficult to access. Furthermore, as attested by participants during interviews, teachers wanted supplementary materials with exemplar learner-centred lessons over and above the initial passing reference in official documents like the *ZCF* blueprint and the Geography Syllabus 4022, and the limited updates in revised textbooks. In addition, teachers also claimed to lack good reference sources on learner-centred methods and the time to research on such approaches. Thus, for the teachers, the learner-centred drive would potentially have been successfully taken up if the MoPSE had, together with policy documents, timeously delivered on the promised supplementary curricular materials and teaching guides. The drive for learner-centred teaching was therefore hampered, not so much because of unclear policy messages but because, in the words of PTUZ, “[t]here are [were] no learning/teaching materials” (PTUZ Petition to the Parliament of Zimbabwe, 2017:2).

The many changes which accompanied the shift to learner-centred pedagogy, as explicitly encased in the flagship documents, called for teachers that fully understood and had ownership of the intended innovation. The documented need for learner-centred pedagogy is, as highlighted in the official implementation document, *Circular No. 2 of 2017*, predicated on predisposing cognitive and dispositional school management and teacher traits. Such pre-requisite conditions however seemed to have been vitiated by “the hurried” (PTUZ, 2017:1), top-down process of implementing the competence-based curriculum. Teachers reported inadequate induction that failed to prepare them intellectually, pedagogically and materially, as required by policy stipulations, for effective adoption of the externally driven learner-centred reform. The lack of adequate induction, in the opinion of teacher participants, created dissonance between the intended curriculum and the transacted curriculum in middle-level secondary school geography classrooms. In light of this state of affairs, as confirmed in teacher participant interviews and extant literature, curriculum reversion loomed large as teachers tended to continue using proven orthodox teacher-dominated pedagogy thereby scuttling the learner-centred drive.

Scrutinised policy documents such as the *Curriculum Performance Framework* and *The Implementation Formative Evaluation Report*, among others, reporting on-going MoPSE monitoring activities, portray an inbuilt potential of a curriculum implementation process. The reports indicate a process that is responsive to stakeholder input, addresses emerging problems and issues and can potentially be benchmarked on best practices with regards to learner-centred pedagogy. The hope was that, with continued implementation monitoring and evaluation, teachers would play a more prominent role in the curriculum process. When local actors (teachers) become fully inducted in and conversant with the enactment of instructional policy, they can have a buy-in on the intended, *albeit*, external change. Being conversant with intended changes entails teachers not only receiving external assistance but also pro-activeness as “life-long learners”. This is, *mutatis mutandis*, as required of the learners under their charge (*Curriculum Review Narrative Report 2015-2014, (2015:v)*) and as captured in the advice by Fullan to the effect that:

... [t]he professional teacher, to be effective, must become a career-long learner of more sophisticated pedagogies and technologies and be able to form and reform productive collaborations with colleagues, parents, community agencies, businesses, and others. The teacher of the future, in other words, must be equally at home in the classroom and in working with others to bring about continuous improvements (Fullan, 1993:10).

4.12 Formative Context of the Learner-centred Pedagogy Initiative

With the launch or going-to-scale of the new competence-based curriculum through the MoPSE’s *Permanent Secretary’s Circular Number 2* of 3 January, 2017, teachers were expected to adopt a number of changes. Among these changes was the use of learner-centred pedagogy in their classrooms at all levels of the education system. The phased implementation process set down in the 2017 Ministerial Launch Statement, *Ground Zero Getting Traction*, and *Curriculum Policy Circular Number 2 of 2017* was for a period of seven years as indicated in Table 4.3.

Table 4.3: Competence-based Curriculum Implementation Phases

PHASING IN OF NEW COMPETENCE-BASED CURRICULUM IMPLEMENTATION						
2016	2017	2018	2019	2020	2021	2022
Inception phase	Infant School ECD A, Grade 1 Junior School Grade 3 Secondary Level Forms 1, 3 & 5	Infant school ECD B, Grade 2 Junior School Grade 4 Secondary School Forms 2, 4 & 6 First summative examination Forms 4 & 6	Junior School Grade 5	Junior school Grade 6	Junior school Grade 7 First Examination Grade 7	Curriculum Review year

Adopted from Ground Zero Getting Traction, and Curriculum Policy Circular Number 2 of 2017

For 2017, the implementation began at infant level with ECD A and grade 1, and grade 3 for junior level. At secondary school level, it began with forms 1, 3, and lower 6 for Advanced level. This meant other grades and forms would “... continue with the old curriculum until they reach the class in which the curriculum is being implemented” (Ministerial Launch Statement *Ground Zero Getting Traction*, Slide 4). Table 4.3 shows this progressive phasing so that by 2021 the implementation of the competence-based curriculum would be completed at all grade and form levels.

The research commenced in the last quarter of 2017 with teachers who were teaching geography in form 3 classes and continued with the same teachers in 2018 who, fortuitously for research, proceeded with their classes to form 4 level. This was so because the authorities in the studied schools ensured as much as was possible that teachers who had started teaching the new curriculum in 2017 at form 3 level continued with their classes into form 4 in 2018.

The requirement to use learner-centred pedagogy, as has already been shown in **Section 4.9**, is one component amongst many planned changes such as the adoption of continuous assessment and emphasis on a competence-based teaching-learning

approach. Given this hydra-like multi-headed foci, the new curriculum generated varied reactions from stakeholders when it was launched in early 2017. Protagonists like the MoPSE saw the new curriculum as a “... unique opportunity for the country to prepare its children for current and future opportunities and challenges” (*Our curriculum our journey* - MoPSE News Media Release, *Sunday Mail*, 5 March 2017:2). Antagonists such as the Progressive Teachers’ Union of Zimbabwe (PTUZ) described the new curriculum as “... hurried, chaotic, shambolic and lacking in the provision of syllabi, resources, focus, direction and national consensus on content” (PTUZ in a *Petition to The Parliament Of Zimbabwe*, 2017:1). A parent, quoted in one of the dailies, complained of the then MoPSE minister:

... [h]is head needs to be examined immediately otherwise he will drag down the whole education system with him. It’s time to stop him before he becomes a serious fool (*News Day*, 2017, January 9).

Remarks by the PTUZ president that the MoPSE would “... arbitrarily muddle and meddle through, as has become fashionable in their style of management” paint a picture in which curriculum stakeholders and users were of polarised viewpoints with regards to the new curriculum. Such a hostile reception from stakeholders at the commencement of implementation in 2017 can best be described as a ‘noisy landing’. Resultantly, against a backdrop of incessant calls to abandon such flirting with curriculum reform, the MoPSE effected some revisions and reviews.

As a response to the unremitting hue and cry from various stakeholders, the MoPSE instituted formative implementation review engagements to iron out and smoothen some of the ‘contentious’ issues of the new curriculum. The MoPSE, *albeit* under a new Minister of Education, set up a Curriculum Review Committee in early 2018. In the words of the new Minister, Mavhima, ‘[t]he aim (of the evaluation) is to identify strengths and growth areas in terms of knowledge, skills and resources to ensure increased effectiveness in the implementation of the curriculum’ (*The Herald*, 2018, May 19). The Curriculum Review Committee was mandated to review the curriculum implementation process in the first year of implementation (2017) and recommend corrective measures (Chinyemba & Muzawazi, 2018). One such corrective measure involved the suspension of continuous assessment tasks in first quarter of 2018 (MoPSE, 2018). It is therefore

against this background of ongoing change, revisions and reviews that this research explored how middle level geography teachers who were in the thick of these changes, enacted the requirement to use learner-centred pedagogy in their lessons.

4.13 Presentation of Findings on Teacher Cases

The previous section outlined the macro-context and formative phases in the implementation of the new curriculum. The following sections present the implementation of the new curriculum by local actors, the form 3 and 4 or middle secondary geography teachers. Renditions of how geography teachers enacted the new requirement of using learner-centred pedagogy are given. Each account begins by giving an institutional description of the school in which the teacher practised. Subsequently, biographical sketches of the teachers, followed by accounts of their classroom practice in the light of curricular policy expectation to use learner-centred teaching and learning approaches, are provided. These accounts are based on research data generated from multiple instruments used in the study. The data gathering processes and accompanying tools (in the broad sequence in which they were executed) include the teacher's reflective journal entries (see Appendix 12), teacher stimulus vignette responses (see Appendix 13), a learner-centred practices gauge (see Appendix 14), lesson observations (see Appendix 15) and post-observations teacher interviews (see Appendix 16). Sequentially, the first cluster of self-reporting instruments (Appendices 12, 13 and 14) solicited teacher self-reported experiences, views and reactions in the wake of the learner-centred pedagogy stipulation. The second group of non-self-reporting processes or tools were three lesson observations followed by a post-lesson interview on the assumption that the way the selected case study teachers taught reflected their understanding of, or lack of, the use of learner-centred pedagogy. Resultantly, the post-lesson interview was meant to discuss both self-reported behaviours recorded through the first cluster of tools and teacher practices observed in the three lessons. A pre-lesson interview on teachers' understanding of learner-centred pedagogy was purposefully avoided in preference of the post-lesson-observations interview. It was feared, on the advice from literature (Argyris & Schon, 1974; Cotton, 2006; Creswell, 2012; Yin, 2014), that pre-lesson interviews would taint responses of teachers' subsequent classroom performance vis-à-vis learner-centred pedagogy.

Thus, this pattern of three lesson observations followed by a post-lesson interview was repeated for all four teacher cases. Refer to Appendix 15 for the *Lesson observation guide* and Appendix 16 for the *Interview guide with teacher participants*.

In the context of this study, evidence for a teacher's cognition of his or her classroom practice was derived mainly from his or her classroom interactions. The form of classroom communication or interaction adopted by the teacher was, on the advice of Blanton *et al.* (2001), considered a reflection of cognitions he or she held and the teaching views they subscribed to. Such classroom interactions captured through lesson observations were analysed through a scheme of coding developed in the study and described earlier in Chapter 3 Section 3.11.2. A brief recap of the coding and analysis of text data is given below.

4.14 Coding of Lesson Observation and Teacher Interview Data

The recorded lesson transcripts, lesson observation entries or notes and post-observation teacher interview transcripts, as pointed out earlier in **Section 3.11.2**, were the sources of data for unpacking teacher-held cognitions on teaching-learning transactions. In the context of this study, such cognitions were taken as the understandings and meanings which form 3 and 4 geography teachers held with respect to how and why they taught their geography classes in the manner they did. This was in the wake of the *ZCF* policy requirement to use learner-centred pedagogy. The categories for analysing the transcriptions were developed from pilot test lesson transcriptions on the basis of classroom interaction attributes of: i) teacher classroom actions; ii) learner classroom actions; iii) classroom communication or discourse structures; (iv) teacher-learner power relations; and, (v) use of resources or learning support materials (LSM) as suggested from available literature (Blanton *et al.*, 2001; Artz & Thomas-Armour, 2002; Ribeiro & Camillo 2012; Schoenfeld, 2013).

In this context, cognitive sense-making relates to teacher beliefs, knowledge and goals that inform their geography classroom practices as reflected mainly through lesson transcriptions and related teacher interview responses. An appreciation of the teachers' sense-making on learner-centred pedagogy can be built from the above listed five

attributes which, in this study, were used as the main categories for text analysis. These classroom interaction attributes became the basis for coding the lesson transcripts. The resultant coding scheme, as shown in Table 4.2, is a scheme of categories and sub-categories that incorporates emerging themes developed from lesson transcriptions.

4.15 Case 1: Mrs Gumbo - A Committed and Fortuitous Implementer

This section sketches an institutional portrait of Reeters Secondary School where Mrs Gumbo, whom the research treats as Case 1 in this multiple case study, teaches geography. Additionally, a biographic outline of Mrs Gumbo is given. The section then presents findings based on responses to a learner practices gauge, vignette stimulus responses, reflective journal, class observations and interview, on how Mrs Gumbo implements the instructional requirement to use learner-centred approaches in geography lessons. A synthesis of the case findings folds this section of the research report. It is important to note that the same pattern of presenting and analysing coded lesson excerpts is adopted for the other three case study teachers.

4.15.1 A portrait of Reeters Secondary School

Reeters Secondary School is located in a high-density, low-income residential area which is some walking distance from the Harare central business district (CBD). The school was established in the mid-2000s, on the same premises as an already existing primary school run by a trust or private organisation. Reeters Secondary School, which goes up to form four or ordinary ['O'] level, is a small sized school having an enrolment of 350 pupils with an average class size of 45 pupils per class. Reeters School has two classes at each level from form 1 to 4. The school head is a lady superintending a staff complement of 20 teachers.

With the primary school as its main feeder school, the secondary school mainly serves the surrounding community living in this low-income suburb. It is located next to a multi-storey hostels section of the suburb. The school boundary is a high brick wall serving to physically separate the school from the noise or hubbub on the outside. This high-density suburb is one of the oldest having been established in the early 1900s to house African workers in the then burgeoning settlement of Salisbury, now metropolitan Harare. With nearly forty years into independence, the suburb is still the archetypical

low income, high density suburb representing, in local parlance, 'a ghetto township'. The hostels, initially meant for single male migrant workers in the colonial period, are now derelict structures brim full of mostly low income, self-employed and unemployed residents who eek a precarious living in an informal sector that has become the hallmark of this suburb.

4.15.2 Biographic sketch of Mrs Gumbo

Mrs Gumbo is a 34-year lady in her tenth year of teaching. Mrs Gumbo is a Diploma in Education (Geography and Environmental Science) trained teacher who is studying her final year of study towards a Bachelor of Education (B.Ed.) degree in geography at a local university. She is a member of the Harare Province Geography Association (HAPROGA). HAPROGA frequently brings together geography teachers thereby creating a forum, a kind of professional learning community (PLC), through which teachers can exchange ideas and share experiences in geography education and its teaching. At the time of the research, HAPROGA held a workshop on Geographic Information System (GIS) and Remote Sensing for its members in the wake of the inclusion of these topics in the new geography curriculum. In the words of the guest of honour at the HAPROGA certification ceremony, such gatherings were needed for "*in the updated curriculum we have loads and lots of demands... needing that we be enlightened at a more grassroots level*" (Minutes of Harare Education District's HAPROGA meeting, 2017, November 30)

Mrs Gumbo is the only geography teacher at the school and has 32 periods per week. In my interaction with her, Mrs Gumbo came through as an affable personality and a progressive teacher willing to learn. With regards to the latter attribute, she said:

... [t]he B. Ed programme I am pursuing has been a chance to improve my teaching of the new curriculum since many the requirements of the new Geography Syllabus 4022 are what the programme touches on.

Generally, she had a sound understanding of the new curriculum where, for example, I noted that the need to integrate ICTs in teaching and learning, as required by the new curriculum, was something she could easily do. In all the three lessons I observed her teach she used power point presentations. Her explanation of this was:

Fortuitously, what the new curriculum advocates with regards to media use and learner-centred pedagogy is what I am exposed to in my on-going course. ... In this respect, the requirements of my course are a Godsend exposure to the needs of the new curriculum.

Viewing her on-going studies as some godsend or *deus ex machina* opportunity that boosted Mrs Gumbo's confidence in handling the demands of the new curriculum implied that she valued the place of such self-improvement engagement in her work. Generally, I observed Mrs Gumbo had a business-like approach in her work. I found her to be considerate of her students and eager to have them learn. This open and enthusiastic characteristic is an integral part of her teaching skills repertoire, a fundamental attribute of her teaching identity. Such teacher attributes form the foundation on which envisaged curricular and instructional reforms can take root and be successfully be enacted. These qualities were particularly vivid in a school such Reeters Secondary School situated as it was in run-of-the mill urban environs.

4.15.3 Mrs Gumbo's classroom context

Mrs Gumbo started teaching the new Geography Syllabus 4022 on its inception at form 3 level in January of 2017. In addition, she also taught the old Geography Syllabus 2248 to form 4 in that year. In 2018 she was teaching the new curriculum at both form 3 and 4 levels since the 2017 form 3s were now in form 4. The teaching periods at Reeters are 35 minutes long. Though it is a requirement for the new syllabus to be allocated five periods a week, the school continued to allocate four periods for geography lessons as was required for the old syllabus. According to the school head,

.. [t]here is a serious shortage of time slots. The school timetable is so fully packed such that it is difficult to allocate five teaching periods for geography as required by the Ministry.

Mrs Gumbo viewed this as a limitation in the implementation of the new syllabus which in her assessment:

...potentially results in inadequate implementation of the new geography syllabus due to lack of teaching time.

4.15.4 Mrs Gumbo's observed teaching-learning transactions

The data to address how Mrs Gumbo taught her form 3 and 4 geography classes was mainly derived from three lesson observations carried out on Mrs Gumbo in forms 3^A,

3^B and 4^A. The lessons were audio-taped and later transcribed for easy content analysis. Also to audio recording and transcriptions, entries on an observation guide soliciting the presence or absence of some 32 potential learner-centred classroom practices were sources of analysable text (Refer to Appendix 15 for the *Lesson observation guide*). The three observed lessons were on; *Evaluation of the land reform programme* in form 3^A, *Revision on soil erosion* with form 3^B, and *Climate change* with form 4^A which had been observed earlier on in form 3 as 3^A.

The following vignette, Figure 4.3, illustrates aspects of how Mrs Gumbo taught her classes represented by an excerpt of a lesson with form 3^A on *Evaluation of the land reform programme*. The lesson excerpt has been coded, using the coding scheme shown in Table 4, to show the main attributes of the teacher-learner exchanges in the lesson.

1. **Teacher (Tr)** : Okay, we are continuing with our topic with the land reform programme in Zimbabwe and today we want to evaluate the land reform programme. ... Okay on evaluation we are going to look at the successes and failures of the land reform programme, (...) faced by the land resettled farmers. Okay, during our last lesson we were talking about phases and models of the land reform programme and we were saying the programme had two models and three phases. Who can describe models of the land reform programme? We did this in our last lesson. Yes Taku?
2. **Student (Sdnt)**: Model A 1 where land was for subsistence farming. (...).
3. **Tr** : Can we describe phase 3, yes?
4. **Stdnt**: Inaudible
5. **Tr** : Yes people were forced off their land. It was known as?
6. **Class**: *Hondo yeminda*. (The battle for farmland). **Lines 1 to 9 A good lesson introduction that provides context**
7. **Tr** : Yes the *hondo yeminda* phase or fast track resettlement scheme or *Jambanja* (querulous encounter) alright. Alright during phase 3 we also said something about musicians who composed songs which were motivational and related to the land reform programme. The songs were meant to motivate the 'invaders' as well as those who were leading them. (...) I am going to play two of the songs which were composed during that period to motivate the 'invaders' as well as those who were leading them. **Tr integrates ICTs in lesson – LRicts.**
8. **Teacher plays an audio song called “ Hondo yeminda”** (The battle for farmland) **Class listens**
9. **Tr**: So this is the song called '*Hondo Yeminda* from the late Comrade Chinx, another song by Tambaoga (**Teacher plays an audio song**). Okay, so these are some of the musicians who came up with songs which were meant to motivate the 'invaders'. So that was Tambaoga, the song is called *Rambai Makashinga!* (Keep pressing on!). So in this song he is saying because we have the land let us be strong. (...). **Tr uses incremental question & answer-**
TAlrqa & contributive dialogue- CS II/Itf & uPR
10. **Tr**: As I have said we are going to look at the successes and failures of the land reform programme. So I want to show you a video entitled *Zimbabwe Land Reform Myths and Realities*. We are going to hear voices from the fields, what the newly resettled farmers are saying (...) the voices from about six farmers who got the land. To hear what are the challenges that they were facing as newly resettled farmers. (...) I want you to note down the successes and failures for those farmers. (**Teacher plays a video and pauses**) Right our first farmer Mr Hwaro (**She resumes playing the video**). [H]e had 28 hectares so he was growing his crops under which model? Yes? ... (**Here most learners have their hands up**) **Effective use of media – LRe**
11. **Stdnt**: Model A 2
12. **Tr** : Model A 2 (**Teacher revoicing -TAre**) and according to him 15 hectares are under cultivation out of 25, out of 28. Why is he not utilising all the 28 hectares?
13. **Stdnt**: Lack of inputs.
14. **Tr** : Yes lack of inputs that's another challenge. What else?
15. **Stnt**: (Inaudible) **Learner contributions steer learning process [Lals] Equal power relations**
16. **Tr** : Lack of equipment. **- ePR) As learners generate, explain, and evaluate ideas, the dimension**
17. **Stdnt**: (Inaudible) **of productivity [LAprd] is attained.**
18. **Tr** : Lack of labour (Teacher plays the video) Alright thus Mr Hwaro's story. From what he is saying, what are the successes of the land reform programme? Tedia? (...)
19. **Stdnt**: Unutilised land has been put to use.
20. **Tr** : Yes, use of unutilised land. Yes. What else? Yes Tana?
21. **Stdnt**: He was able to hire livestock. **Teacher revoices (repeats) learners' answers - TAre**
22. **Tr** : Yes, he was able to hire livestock. Also he is saying he produces for the GMB. (i.e. Grain Marketing Board

Figure 4.3: Lesson on Evaluation of the Land Reform Programme.

In the lesson on *Evaluation of the land reform programme*, excerpt Figure 4.3, Mrs Gumbo uses a recap of previous learning together with two popular songs *Hondo yeminda* (The battle for farmland) and *Rambai Makashinga!* (Keep pressing on!) to introduce the lesson (lines 1 to 9). This is followed by a video clip, beamed through a liquid crystal display (LCD) projector, as part of the main lesson. Prior to playing the video, the learners are instructed, “*I want you to note down the successes and failures of those farmers.*” (Refer to text numbered 10). After viewing the video portion pertaining to the first farmer, a class question-and-answer session on problems and challenges of the land reform programme initiates the teaching or exposition phase of the lesson (texts 10 to 22). This segment of the lesson is lively as learner responses show that they are able to use, or make meaning from the video information to come up with the challenges and successes of the land reform programme (Refer to the last sentence in text 10 to 22). I noted that learner engagement and participation tended to be very high when the teacher used visual and auditory media as evident in text 10 to 22. This represents what Schoenfeld (2013) terms a dimension of learner productivity in which learners show interest in learning through active construction of geographical knowledge as they are able to generate, explain and evaluate ideas (lines 11-22 coded **LAprd**). In this phase, the teacher jotted some points on the whiteboard, an activity which a few conscientious and attentive learners emulated by jotting these points in their rough note books.

A number of observations pertaining to Mrs Gumbo's lesson can be drawn from this excerpt. Mrs Gumbo's lesson evinces, a somewhat, mechanical pattern replicated in her other lessons starting with a recap introduction (line 1 to 6 in Figure 4.3), followed by a teacher exposition phase (as in line 7). The recap introductions generally focus on either what the class had previously learnt through a question-and-answer session or some probing questions related to what learners knew about the forthcoming topic. Generally, the introductions succeeded in establishing the appropriate initial set for the ensuing lessons (as in lines 8 and 9). The sequence of a teacher recap introduction utilising teacher talk or questions was however varied in *Evaluation of the land reform programme* in Figure 4.3 to include the aspect of audio songs (lines 8 and 9). The use of some form of instructional media as part of Mrs Gumbo's exposition (in text 10 to 22)

is also evident in the following extract on her other observed lesson on *Climate change* with form 4^A.

Mrs Gumbo: Alright I want you to look at the photographs which shows [sic] changes in the environmental conditions. Actually they'll be 2 photographs. The one which shows an environment before it was affected by an environmental problem that we are going to discuss. I want you to note the changes in those photographs. (**Teacher beams photographs on LCD projector**). Alright. Can someone describe the change in that photograph? Change in environmental conditions. Yes, Marvin?

Student: The first picture is evergreen which means there is the amount of rainfall needed for the plants to be green, but, at that picture

In this lesson, the static photograph scenes beamed from the projector provided opportunities for learners to describe changes depicted in the photographs.

The use of ICT-related media in the form of the audio-taped songs, and a video clip and photographs both beamed through a liquid crystal display (LCD) projector is an important attribute and springboard to learner-centred pedagogy. Part of the teacher's instruction in the extract quoted above on the *Climate and Change* lesson bears evidence of this when Mrs Gumbo explicitly directed learners to the photographs emphasising:

I want you to note the changes in those photographs. Alright can someone describe the change in that photograph?

This emphasis on media and ICT use is in line with one of the goals of the competence-based curriculum which is to “[f]oster life-long learning in line with the opportunities and challenges of the knowledge society through: ... [e]mbracing ICTs and e-learning” (The *Zimbabwe Curriculum Framework*, 2016:6). The ability to incorporate instructional media in teaching and learning was evident in Mrs Gumbo's observed three lessons.

Overall, in using visual and auditory media, Mrs Gumbo successfully created a classroom community characterised by learner-centred pedagogy anchored on the attribute of inclusiveness as this encouraged learners to come up with suggestions from their interaction with the media. It can be concluded, at least tentatively, that this teacher had, as part of her teaching repertoire of skills, attributes promoting learner-centred pedagogy.

In all of the lesson activities and phases such as introductions, teacher exposition, question-and-answer sessions and group report back phases, a common teacher behaviour or mannerism of Mrs Gumbo was that of 'revoicing' or repeating learners' answers (Schoenfeld, 2013). Figure 4.3 contains such instances of revoicing. Refer to lines 6 to 7, 13 to 14, and 20 to 22 in Figure 4.3. Overall, Mrs Gumbo's observed lesson transactions show some inclination towards use of learner-centred pedagogy. The next section focuses on her understanding of the need to use learner-centred pedagogy and explores whether such inclination derives from deeply held cognitions or were merely some passing flirtations with learner-centred pedagogy.

4.15.5 Mrs Gumbo's understanding of the need to use learner-centred pedagogy

A central issue investigated by this study was how form 3 and 4 geography teachers understood the new competence-based curriculum and its requirement for them to adopt or enact learner-centred pedagogy in their teaching. This line of inquiry was premised on the notion, informed by literature on cognitive sense-making, that how a teacher perceives and interacts with new curricular requirements mirrors his or her understanding and interpretation of such instructional policies or innovations (Cohen, 1990; Blenkin *et al.*, 1992; Spillane, Reiser & Reimer, 2002). This, in turn, shapes the teacher's consequent classroom enactment of new instructional policy. Data to describe Mrs Gumbo's understanding of the *ZCF 2015-2022* instructional requirement to use learner-centred approaches in the teaching and learning of geography at form 3 and 4 levels were derived from the teacher's reflective journal entries as guided by questions in Appendix 12. Additional sources of data were simulated vignette responses to two hypothetical teaching-learning scenarios (see Appendix 13), a self-checking learner-centred instructional practices gauge (see Appendix 14), and an interview carried out after three lesson observations (see Appendix 16).

In response to a simulated vignette question on how she currently teaches *vis-à-vis* the scenarios depicted in the two hypothetical situations presented, Mrs Gumbo claimed to use individualised worksheets or job cards as depicted in the scenario in Room 1. This was over and above the variety of methods such as group work and role plays. She indicated a preference for the scenario in Room 2 for which she claimed:

... there was a lot of pupil involvement in the learning processes. Involvement of learners is the best way to capture them [as in having their attention] and have them remember concepts.

These preferred and self-reported teaching-learning methods suggest that the teacher's teaching methods align with learner-centred pedagogy. This claim to adopt learner-centred pedagogy was also borne out by a calculated score on a self-checking *Learner-centred instructional practices gauge: Am I a learner-centred teacher?* (Appendix 14). Mrs Gumbo, like other teacher participants filled the *Learner-centred instructional practices gauge* at the start of the research before any lesson observations. As noted in Section 3.9.2 and Figure 3.2 in Chapter 3, instructions on how to calculate and interpret one's total score, although included in Appendix 14 were removed on the gauge checklist administered to teacher respondents. Mrs Gumbo had an average score of 52 out of a possible maximum of 80. This score falls in the range 45-64 which is interpreted as *the teacher values learner-centred teaching and utilises it where and when appropriate materials are available*. These data from the simulated vignette responses and the *Learner-centred instructional practices gauge* on Mrs Gumbo's personal preferences for learner-centred teaching techniques were triangulated with her submissions in a self-reflective journal that she and the other three participating teachers were encouraged to keep throughout the duration of the study.

The requirement for each participant teacher to keep a reflective journal of his or her experiences in implementing the new geography syllabus was a way of recording these local actors' experiences with the learner-centred pedagogy obligation. With regards to her first impressions when she got to know that she was teaching the new Geography Syllabus 4022, Mrs Gumbo had this entry in her reflective journal:

I was challenged, and I felt uncomfortable. The form 3 syllabus has some new topics which were not in the previous Syllabus 2248. Implementing Syllabus 4022 would need a lot of work and research on the part of the teacher.

As can be noted from this journal entry, the initial teacher concerns had to do with inclusion of new content and the increased workload demands this had on the teacher. The need to use learner-centred pedagogy was not explicitly highlighted as problematic. This suggests that the drive for a learner-centred pedagogy tended to be overshadowed

by concerns such as the inclusion of new content. Actually Mrs Gumbo's self-reflective journal reaction on the need to use learner-centred teaching for the new geography syllabus was to the effect that:

Learner-centred teaching enables learners to be self-independent as well as giving them an opportunity for research, making the teacher to be a facilitator in the learning process, reducing his/her load [*sic*].

This submission reflects a positive view of the learner-centred drive. This view, when juxtaposed against her earlier submission that the new syllabus content requires '*a lot of work and research on the part of the teacher*', gives an inherently conflictual perception on the competence-based curriculum. I requested Mrs Gumbo to clarify these seemingly contradictory self-reflective journal entries during a follow-up interview. She responded thus:

Now that you mention it, yes indeed the new syllabus has lots of new content whether one uses teacher-centred methods or learner-centred methods. As for learner-centred teaching, on the face of it, one can think that the teacher would have less work but this is not so. In my earlier entry I had not fully considered this aspect. I can say that the learner-centred approach demands lots of work for both the teacher and learner. Being a facilitator does not reduce the teacher's work. Rather the teacher has to prepare by putting together lots of materials learners will use in lessons. Also the approach requires learners that use the materials to come up with new ideas and not wait to be spoon fed by the teacher.

This was an admission that the perception that learner-centred pedagogy reduced the teacher's work was not exactly accurate. For example, in the interview excerpt, the teacher was able to clarify initially held views on learner-centred pedagogy as resulting in less work. The greater understanding expressed in the excerpt may have developed with the passage of time from the initial entry in the self-reflective journal to the post-lesson observation interview. In this regard, Fullan's (1991) observation on the need for change implementers to fully understand the meaning of change is relevant. Fullan (1991) asserts that it is vital to consider *the phenomenology of change*, that is, how teachers understand and experience change. In this vein, Fullan argues that the way teachers implement policy changes hinges, to a large extent, on how clearly they understand what those changes entail. The apparent paradoxical view of the new curriculum as being too demanding while at the same time its learner-centred pedagogy as reducing work for the teacher

demonstrate the reason for Mrs Gumbo's initial ambivalent perception of the new curriculum's impact on the teacher's workload. In Fullan's (1991) scheme of things, Mrs Gumbo would be a candidate of initial staff development to enhance a clearer understanding of instructional reform which, in this case, is the competence-based new curriculum.

The data from the calculated score for self-checking teacher learner-centred practices gauge, vignette responses, self-reflective journaling and lesson observations, were further triangulated through an analysis of lesson transactions and post-observation teacher interview transcripts. The teacher post-lesson observation interview and even the follow-up interview came at the tail end of a continuum of the aforementioned data gathering methods thereby constituting a more robust and iterative data generation process which sought to tie up the loose ends and build a story of the teacher's practice.

The post-lesson interview focused on how Mrs Gumbo understood, interpreted and enacted the learner-centred pedagogy instructional reform. In response to a question on what motivated her to use ICT-related teaching material such as videos on resettled farmers and projected photographs on effects of climate change, Mrs Gumbo had this to say:

... [t]he main pedagogical thrusts of the new curriculum are use of technology and aids that help learners relate what they already know to new systems. While the school has an LCD projector for use by teachers, it does not, however, have enough laptops for use by teachers and not all classes have white boards. I have had to use my laptop.

Added to this, Mrs Gumbo acknowledged that her increased access to and use of ICT-linked multimedia was a result of her ongoing BEd. studies in these words:

I got these learning support materials (LSM) through my on-going BEd. studies. We had a project in which we had to gather lots of ICT-related teaching and learning media such as videos. We were required to demonstrate how we could use ICT-linked multimedia materials in teaching. We presented our demonstration lessons and whatever other presentations as LCD power point presentations. Using power point presentations has become easy for me.[...] The course also deals with the new curriculum to the extent of comparing old and new syllabi.

That Mrs Gumbo appreciated the need to use learning media is evident in her words to the effect that:

... [u]sing ICT-linked multimedia materials enables most, if not all, learners to see and respond to these stimulating learning resource materials.

The new curriculum, in emphasising learner-centred pedagogy, advocates the use of varied media which may involve, as done by Mrs Gumbo, integrating videos, projected photographs, songs and text extracts in lessons.

Figure 4.4 is an excerpt that illustrates Mrs Gumbo's use of text extracts on the lesson on *Climate Change*. The use of text extracts involved both teacher and learners reading out definitions of new concepts as brought out in the lesson given in the excerpt. It entailed giving explanations of the concepts as given in the various contexts.

1. **Student (Sdnt):** Climate change can be the change in the amount of rainfall distributed to a certain area or the change in the temperatures that occur at given period of time.
2. **Teacher (Tr):** Change in temperature or rainfall at a place over a long period of time. Okay. So, these are the important terms which you are going to look at in this lesson. **Teacher reads text from slide.** *Climate change is a long-term change in earth's climate especially due to an increase in average temperatures.* So, what you have said is correct. We are looking at changes in global temperatures changes, in weather conditions, weather variables over a long period of time. Another important term that you are going to look at is adaptation. Who can read what adaptation is? Marvin?
3. **Sdnt: (Reads text from slide)** *Adjusting conditions in order to be best suited for the environment.*
4. **Tr:** Yes, adjusting conditions in order to be best suited for the environment. Now because of climate change people need to adjust conditions in order to suit the environment. For example, it has been raining some time ago. What were you doing to adjust to rain conditions?
5. **Sdnt:** Buying umbrellas.
6. **Tr:** Yes, so many people got some umbrellas. Why? They wanted to adjust to rain conditions. So just like climate change now that weather conditions are changing rapidly. People need to adjust to suit such conditions other nouns [sic] that are used for adaptation are to modify, to alter or to transform. Alright mitigation. Who can read? What is mitigation? Yes?
7. **Sdnt: (Reads text from slide)** *Mitigation actions to limit the magnitude or rate of long-term climate change.*
8. **Teacher:** Alright these are actions to limit the magnitude or rate of long-term

Figure 4.4: Mrs Gumbo's Use of Text in Lesson.

Mrs Gumbo's other learner-centred pedagogy attributes observed and discernible from excerpts in Figures 4.3 and 4.4 are an ability to create a relaxed classroom learning environment characterised by ready learner contribution. She acknowledged learner contributions through statements as "*So what you have said is correct*" (Text 2 in Figure 4.4). In the following annotated vignette, Figure 4.5, Mrs Gumbo created a relaxed classroom learning environment characterised by use of group-based tasks which foster learner to learner interaction and possible co-construction of meaning (bracketed texts 1 to 3 and 9 to 15), ready learner contribution and democratic classroom relations (lines 8 and 16 to 18).

1. **Teacher (Tr):** Alright, so I am going to give you some work to do in groups. I want you to interpret the photographs that I am going to give you, then answer questions based on those photographs in groups. I'll give you about seven minutes to do that work. ... **Teacher distributes tasks and moves around the groups checking their work.** You are just writing what you are seeing in the photograph. ... Alright, its time up! Group one, that's group one's picture. **The photograph is beamed through an LCD.** So, as group one members are giving their feedback, the other groups are also going to help identifying the features in the photographs, also answering the questions although you did not work on that. ... Alright, the question says, *Name the environmental problem shown.* Group one. Yes?
2. **Learner (Lnr):** Air pollution
3. **Tr:** That's air pollution. Right, the question says, *[u]sing information from the photograph only explain the causes of this problem.* Group one. Yes?
4. **Lnr:** Carbon monoxide from industrial plant ...
5. **Tr:** Yes, it is caused by smoke from industries, that's the main cause of the problem. Alright! *What measures can be taken to reduce the effects of the environmental problem shown?* ... Measures? Group one. Yes?
6. **Lnr:** Industries must be constructed away from residential areas.
7. **Tr:** Alright, industries must be located away from residential areas, number one. Number two? Yes.
8. **Lnr:** Still on that issue of re-locating the industries. Maybe if we move them from this place to another place, the air pollution does not stop. **Learner freely expresses an opinion.**
9. **Tr:** Initially they must be located away from, not relocated. So the industrial site must be away from residential areas. Yes, what else? Measures that can be taken to reduce the effects of the environmental problem shown. Other groups, please chip in?
10. **Lnr:** Buying technological machines which does not affect the ...
11. **Tr:** Such as? Maybe on the issue of machines, industries must use machines that does [sic] not cause a lot of pollution. What else can be done to reduce the effects of the environmental problem shown? Other groups, can you please chip in? Yes?
12. **Lnr t:** I think they must reduce their ...
13. **Lnr:** I think they should do their work downtown, they should wear clothes
14. **Tr:** Does wearing of protective clothing reduce pollution?
15. **Class:** No!
16. **Lnr:** I don't know if what I'm going to say is possible, but maybe they can find a way that they'll prevent the smoke from coming out. Maybe they can get it back inside and transform it into a form of an energy. Smoke energy or steam energy.
17. **Tr:** So that the smoke does not come out?
Lnr: Yes. ...
18. **Tr:** Ok, that might be something new. ...I think you guys are going to come up with some new technologies. Yes, what else?
19. **Lnr:** Education ...
20. **Tr::** Yes, education, or even street laws on pollution. Alright, that's group one.

Inclusive or intergroup approach to group work and co-construction of meaning/learners learn from peers (LAlp) and do productively - LAprd

Inclusive or intergroup approach and free expression

Free expression of ideas with the teacher encouraging it - LAqr & ePR

Figure 4.5: Mrs Gumbo's Use of Photo-based Group Work on Climate Change.

I asked Mrs Gumbo what she believed were the attributes of good teaching. She was of the opinion that:

... [t]he teacher has to ensure that students understand what you intend to have them learn. This involves making the subject accessible or simple for them and also using multimedia and group work so that they can interact and exchange ideas to come up with an acceptable explanation.

This answer underscores a teacher disposition that allows for learner participation in knowledge construction in the classroom and hence predisposes to learner-centred pedagogy.

A common feature of teacher-learner interactions in Mrs Gumbo's lessons, as evidenced by analysis of lesson transcripts, was that of a teacher who occasionally revoices or echoes learner contributions. This is particularly evident in the coded lesson extract in Figure 4.3. As previously explained, teacher revoicing entailed teacher repeating and at times clarifying learner answers. When I asked her why she frequently resorted to revoicing, Mrs Gumbo felt that: "... [t]his ensures that all learners hear the contribution of others." This reason proved pertinent as I also missed or did not get to hear all contributions by learners. Pursuant of the revoicing practice, I further asked Mrs Gumbo, "*Why not allow learners to repeat their answer or to have their colleagues repeat it?*" Mrs Gumbo was amenable to this suggestion saying:

... [y]es students can be allowed to repeat their colleagues' answers as a way of checking their participation in the lesson. Also I feel repeating a student's answer may actually signal my endorsement of their answer to the class and when combined with probing it determines the flow and direction of the lesson. However I have to admit I do the repeating rather too frequently than is perhaps necessary and more than the students. I guess it's something that has become habitual. I could actually have students repeat, confirm or explain their colleagues' contribution.

The vignette below, which is a continuation of the *Climate change* lesson shown in Figure 4.6, brings out an instance where, according to Mrs Gumbo, revoicing "when combined with probing, it determines the flow and direction of the lesson".

1. **Tr:** [W]e were looking at various ways by which human beings through their activities affect climate. Alright as a recap what are the human activities that affect climate and how? Nashe!
2. **Sdnt:** Deforestation – **Initial learner contribution.**
3. **Tr:** Yes! Deforestation. How does deforestation affect climate? – **Teacher revoices (repeats) learners' answers – TAre and probing determining lesson direction.**
4. **Sdnt:** Whereby people cut down trees hence removing the leaves that convert carbon dioxide to oxygen.
5. **Tr:** And what is the effect on climate? Yes? - **Teacher probing**
6. **Sdnt:** Evapotranspiration is reduced.
7. **Tr:** Evapotranspiration is reduced. Yes? – **Teacher revoices – TAre and probing.**

Figure 4.6: Possible Direction of Lesson Determined through Revoicing and Probing.

The exchanges depicted in Figure 4.6 illustrate that revoicing was utilised as a basis for further probing thereby determining the direction of the lesson. The interactions portrayed in Figure 4.6 also created an avenue for ensuring that learners had a role in steering the learning process in directions suggested by their answers. This can be said to be a form of learner-centredness in the teaching-learning process. Additionally, revoicing can be seen as a device through which learners could be made to repeat their colleagues' contribution as way of encouraging active listening and participation in classroom transactions.

4.15.6 Synthesis of Mrs Gumbo's cognitive sense-making as an 'implementer' of learner-centred pedagogy

Data to describe Mrs Gumbo's understanding of the *ZCF 2015-2022* instructional requirement to use learner-centred approaches were derived from self-reporting and non-self-reporting instruments. Mrs Gumbo, as pointed out earlier, generally subscribed to the view that the use of learner-centred pedagogy is a good thing. She, however, politely protested the hurried, top-down and prescriptive nature of the implementation of the *ZCF* related-reforms indicating that: "it was not possible to allocate the 5 periods recommended for geography due to the heavy demands for slots on the timetable." Consequently, geography was allocated four periods in her school, instead of the new curriculum prescribed five periods per week.

Mrs Gumbo's observed lessons showed elements of learner-centred teaching and learning approaches. The frame factors in the teacher's decision on how to teach what she taught were threefold. First, fortuitous factors like the availability of learning support audio-visual materials acquired through an on-going in-service course. In addition, her membership to the Harare Province Geography Association (HAPROGA), a geography teachers' association and a type of teacher professional learning community (PLC) provided Mrs Gumbo with a context to use multimedia and being well-informed of the requirements of the new curriculum respectively. These existential realities enabled her to attain some measure of learner-centred pedagogy in her classes. With respect to the significance of her membership of HAPROGA, Mrs Gumbo said: "[a]part from giving us guidance on how to tackle new topics like GIS and remote sensing, as members we observe and discuss learner-centred lesson presentations by fellow teachers which I can say give one some ideas of how to implement these in one's classroom."

The HAPROGA membership therefore helped teachers share ideas and could potentially equip teachers with skills to teach the new curriculum. The availability of a school LCD projector meant that the school was supportive with requisite equipment. I did not come across such readily available equipment for teacher use at the other three school research sites. A combination of correct teacher knowledge and predisposition, the requisite equipment and material resources, thus allowed a commendable adoption of learner-centred pedagogy. This underscores the truism, as observed by Schoenfeld (2013), that a teacher can only implement what he or she knows or does have the resources for.

The second set of frame factors which point to Mrs Gumbo's pro-learner-centred pedagogy cognition relate to her predisposing teacher-established pedagogical routines which allowed a relaxed classroom learning milieu and the more-or-less permanent use of some media and group work. Thirdly, her dominant classroom communication style, namely the use of contributive dialogue through a habitual question-and-answer routine and the revoicing of learner answers helped attain a measure of learner-centredness in Mrs Gumbo's observed lessons. These main frame factors seemed to work well, *albeit* inadvertently in some instances. This resulted in some modicum enactment of the

learner-centred pedagogy initiative by Mrs Gumbo. However, a critical and deeper examination of classroom discourses presided over by Mrs Gumbo suggests weaknesses in her supposedly learner-centred pedagogical armour.

Classroom discourse, in the context of this study and as used by (Blanton et al., 2001 (2001: 228), refers to exchanges, talk or utterances, engaged in by the teacher and learners on a subject, which in this research is geography, in the classroom. Classroom discourse was analysed on the understanding that it was key to both learners' understanding about geography and the teacher's thinking about teaching geography. Teacher thinking was in turn taken as a potential pointer to how the teacher understood and executed the learner-centred pedagogy encapsulated in the *ZCF 2015-2022* reform. In the context of Mrs Gumbo's lessons, as already shown for excerpts of transcribed lessons in Figures 4.3, 4.4, and 4.5, a common habit displayed by the teacher was the use of a question-and-answer approach characterised by teacher revoicing learners' answers. An analysis of this teacher trait suggests that use of question-and-answer and revoicing can vitiate learner-centred pedagogy just as it has been shown, hitherto, to enhance it. As earlier shown teacher's revoicing of the learner's contributions legitimates the learner's ideas. It portrays the learner as competent and capable of learning. As Schoenfeld (2013) has shown in the context of teaching mathematics, revoicing has the effect of attributing knowledge construction to the learner thereby enhancing learner-centredness. This augurs well for a classroom milieu promoting collaborative meaning-making, learner participation and inclusivity. While revoicing and teacher clarification of content have these learner-centred pedagogy attributes of learner participation and inclusivity, both may however serve to reinforce the teacher's dominance as the only individual in the classroom able to validate the information generated and mobilised in the classroom (Schoenfeld, 2013; Blanton et al., 2001). The discourse structures supported by Mrs Gumbo through revoicing were not fully utilised to produce authentic learner-centred learning. It has been shown, with Mrs Gumbo also accenting to the same, that through revoicing, the teacher may have failed to open up learning space by extending her technique of revoicing to the learners. This could have been done, as Mrs Gumbo acknowledged in the subsequent interview, by her assuming a facilitative role of asking

learners to restate each other's response or have them apply their own reasoning to a fellow learner's reasoning. This is captured in Mrs Gumbo's earlier quoted remark to the effect that:

... [y]es students can be allowed to repeat their colleagues' answers as a way of checking their participation in the lesson. ... I could actually have students repeat, confirm or explain their colleagues' contribution.

In addition, as Schoenfeld (2013) submits on the advantage of repeating a learner's contribution, Mrs Gumbo could have challenged students' reasoning by asking for counter-examples thereby prompting more learner participation. Such affordances of learner revoicing could have been instances of potential multiple representations of geographical knowledge based on one learner's response.

The failure to open up learning space by extending revoicing to learners ensured that teacher revoicing and clarification of content strengthened the teacher's dominant role as the main individual able to validate the information generated and mobilised in the classroom. This is because learners may come to expect teacher repetition or revoicing of their answers as an approval of their contribution. This form of classroom discourse, which Ribeiro & Camillo (2012) term contributive dialogue while Blanton *et al.* (2001) call it univocal exchange, can create unequal power relations which, in this study, has been coded uPR in Table 3.2. Refer to Table 3.2 for the main and subcategory codes which are used in this study. The code uPR is where the teacher-learner flow (CS tlf) may overshadow other communication flows such as learner-teacher flow (CS ltf) and learner-learner flow (CSllf or LAIp). When practised this way, (refer to Figures 4.3, 4.5, among others) teacher revoicing vitiates effective learner-centred pedagogy as learners can no longer be co-constructors of, or equals in, knowledge generation (ePR).

Another common technique that Mrs Gumbo utilised, apart from revoicing, was the use of question-and-answer. Figures 4.7, 4.8 and 4.9 are vignettes that bring out characteristics of Mrs Gumbo's use of the question and answer method. As Mrs Gumbo habitually repeated pupils' answers to correct, affirm or build-on them, there were instances when she failed to connect with the content of a learner's answer to leverage opportunities for deeper geographical conceptual conversations. Three instances in

previously given lesson excerpts illustrate this point. Firstly, the following portion of Figure 4.7, to use the ideas of Blanton et al. (2001), outlines part of a whole-class discussion surrounding this aspect of inadequate utilisation of learner contribution for deeper understanding.

1. **Teacher (Tr):** Alright I want you to look at the photographs which show changes in the environmental conditions. Actually, there will be two photographs; the one which shows [sic] an environment before it was affected by an environmental problem that we are going to discuss. I want you to note the changes in those photographs. Alright. Can someone describe the change in that photograph? (**Tr shows photograph from LCD projector**) Change in environmental conditions. Yes, Marino? **Learning media integration process-LRicts.**

2. **Student (Sdnt):** The first picture is evergreen which means there is the amount of rainfall needed for the plant to be green, but, at that picture.

3. **Tr:** Right so there is green and dense vegetation. What about the other photograph?

4. **Sdnt:** The other photograph is dry which means there are high temperatures.

5. **Tr:** Okay another photograph. Right, can you note the changes in those photographs? Yes Wanashe?

Annotations:

- Learner contribution apparently jettisoned by teacher.
- Teacher dominates flow of communication -uPR/CSIf.

Figure 4.7: Missed Opportunities for a Nuanced Geographical Conversation (1).

In excerpt Figure 4.7 (lines 1 to 5), the teacher generally excels in the role of a mediator between material (projected photographs) and learners by directing learners to the issues of concern in the lesson. Though in line 1 the teacher did well to guide learners on this media-learning-integration process (**LRicts**) for the ensuing lesson, this effort to involve learners was not sustained throughout. In the excerpt. The teacher revoiced and extended the student's response in line 3 with '*green and dense vegetation*' but at the cost of interrupting the learner's efforts to compare the two environments in the photographs in line 2. There was a missed opportunity to build on the learner's contribution in lines 3, 4 and 5. This is because the teacher hurriedly moved on to another photograph whereas the nature of the *dry photograph*, with regards to characteristics and possible causes, could actually have been clarified as an area now

devoid of vegetation probably due to deforestation. The misconception of equating a bare area devoid of vegetation with dryness was neither taken up as a learning point through correction nor explored further since dryness could not be easily deduced from the photograph.

Furthermore, cold regions are dry but such dryness is not due to high temperatures. Dryness does not equate high temperatures as the student seemed to imply in line 4. Instead of engaging these misconceptions, the teacher brusquely moved on, drawing the class's attention to: "*Okay another photograph!*" Student Matino and his classmates may thus be left with the erroneous impression that bare areas are always dry due to high temperatures. The opportunity to make wider connections to other geographical ideas on *dryness and temperature* was not explored. In the subsequent post-lesson-observations interview, where this part of the recording was replayed, I asked Mrs Gumbo whether this situation could have been handled differently to avoid the effect of jettisoning a learner's contribution. Mrs Gumbo had this to say:

Sometimes in the thick of teaching these instances of incomplete responses are overlooked as one wants to cover the planned content.

This is an explanation which I took to also apply to similar situations depicted in subsequent excerpts as Figure 4.8 and 4.9. It is clear that in such interactions involving the teacher's use of the question and answer method, how one handles learners' answers and revoicing may preclude meaningful learner-centred pedagogy. This may not have been the teacher's intention. However, responses in the heat of the teaching-learning moment could have led to teacher's inadvertent overlooking challenges or opportunities to learn thereby limiting the opportunity to explore and engage in needful geographical conversation built on learner contributions.

Other examples of missed opportunities for a nuanced geographical conversation are illustrated in Figures 4.8 and 4.9. Figure 4.8 (which is from Figure 4.5) illustrates how the teacher failed to clarify possible learner misconceptions and to connect with the content of a learner's answer to leverage opportunities for deeper geographical conceptual conversations.

1. **Teacher (Tr)**.... Alright, the question says, *Name the environmental problem shown.* Group one. Yes?
2. **Learner (Lnr)**: Air pollution.
3. **Tr**: That's air pollution. Right, the question says, *[u]sing information from the photograph only explain the causes of this problem.* Group one. Yes?
4. **Lnr**: Carbon monoxide from industrial plant ... **Teacher does not clarify nature of carbon monoxide pollution**
5. **Tr**: Yes, it is caused by smoke from industries, that's the main cause of the problem. Alright! *What measures can be taken to reduce the effects of the environmental problem shown?* ... Measures? Group one. Yes?

Figure 4.8: Missed Opportunities for a Nuanced Geographical Conversation (2).

In Figure 4.8 in line 4 the student's answer of carbon monoxide was left uncorrected in the teacher's contribution in line 5 yet the teacher's positive 'Yes' response (line 5) could imply that the student was right! Although it could be good and correct for the teacher to refer to smoke as the cause of pollution, the student's preceding suggestion of carbon monoxide was inappropriate and wrong. It should be noted that carbon monoxide is gas and therefore not visible and is ordinarily not emitted by industrial plants. Furthermore, its potential 'open' emission in the manner suggested by the student can lead to massive deaths as it is highly poisonous. Figure 4.9 illustrates another failure to utilise the question-and-answer for deeper learner geographical conversations.

1. **Tr**: Alright as a recap of our previous lesson: *What are the human activities that affect climate and how?* Nashe!
2. **Sdnt**: Deforestation
3. **Tr**: Yes! Deforestation. How does deforestation affect climate? **TAre-revoicing, probing TAlO**
4. **Sdnt**: Whereby people cut down trees hence removing the leaves that convert carbon dioxide to oxygen.
5. **Tr**: And what is the effect on climate? Yes! **Tr probing-TAlO**
6. **Sdnt**: Evapotranspiration is reduced.
7. **Tr**: Evapotranspiration is reduced. Yes! **TAre-revoicing, probing TAlO**
8. **Sdnt**: Also there is the reduction in the taking down of carbon dioxide by trees thereby leading to global warming then to climate change. **TA-No probing on global warming, lost learning opportunity.**
9. **Tr**: Okay. Any other human activity that affects climate? Natswa!
10. **Sdnt**: Poor farming methods for example growing crops near rivers which can lead to siltation and it can affect it can dry the rivers which will affect the water bodies.

Figure 4.9: Missed Opportunities for Nuanced Geographical Conversation (3).

The teacher did not take up the issue of increased carbon dioxide as inducing global warming which a learner (line 8) proffered. This can be said to have been a missed opportunity to utilise the learner-centred dimension of learner involvement, namely access (Schoenfeld 2013) entailing the teacher relating and connecting learner ideas to greater learner autonomy in learning and geographical meaning.

It is important to underscore a common process involving all the four teachers in the data generation process. As I began compiling the report on each participant teacher either during the research but mostly after the post-lesson-observations interview, I went back to the teachers to check and share with them the main directions the research findings were taking. Such findings related to the teacher's profile, his or her school profile and classroom observations. I did this as part of the process of member checking to verify whether my portrayal of events, transactions, observations and main findings was in line with their views. Member checking was an occasion to clarify any misrepresentations or misinterpretations I might have formed. This afforded me a chance to accurately reflect their views. It is important to stress that I did not, as advised by Creswell (2014), take back the raw transcripts or scripts to check for accuracy.

4.15.7 Conclusion on Mrs Gumbo's case

The foregoing paragraphs have reported on Mrs Gumbo, one of the form 3 and 4 geography teachers that I studied. A description of the biographical background and the institutional context in which she works as a geography teacher were given. This was then followed by a characterisation of how she taught her form 3 and 4 geography classes in the wake of *ZCF 2015-2022* policy requirement to adopt learner-centred pedagogy in all learning areas and at all levels. An analytical narrative closes the section assessing how teaching decision frame factors such as the fortuitous availability and use of multi-media backed by a supportive school milieu, membership to some incipient PLC such as the geography teachers association, and use of contributive dialogue in the class question-and-answer and group work sessions in which teacher revoicing was common all contributed to a measure of learner-centred pedagogy. However, her rather routine and at times non-probing use of question and answer method and revoicing of learner answers may be said to represent a flirting veneer with learner-centred

pedagogy not predicated on deeper understanding of and engagement with learner-centred pedagogy. It is important to record that the orderly way in which the school was run belied the noisy bustle and hassle outside the brick-walled school boundaries. This is characteristic of a crowded high-density suburb in which the school is located. The observed business-like school environment predisposed to effective teaching and learning, and *ipso facto*, the implementation of the new competency-based curriculum. The following section focuses on how another form 3 and 4 teacher, Mrs Musi, operating in a different school in a high income, low density suburb of Harare, fared in wake of the MoPSE learner-centred pedagogy instructional obligation.

4.16 Case 2: Mrs Musi - Enthusiasm for the New but Married to the Conventional

Case 2 involves Mrs Musi who taught at Naviana High School. A description of the school is given followed by a biographical sketch of teacher Musi. The findings from a self-checking learner-centred practices gauge, simulated vignette responses, self-reflective journaling, lesson observations and the post-lesson-observation interview are brought together to characterise how Mrs Musi understood and implemented the *ZCF 2015-2022* requirement to use learner-centred pedagogy in geography classes at middle secondary school level.

4.16.1 A portrait of Naviana High School

Naviana High School, a form 1 to 6 secondary school, was established in the mid-1970s to serve a catchment area of high income, low density suburbs in this northern part of Harare. It is located in a typical high income, leafy suburb. Though nominally a multiracial school, the predominantly black student population diametrically contrasts with the predominantly white studentship at the time of majority rule in 1980. At the time of the study, only a single boy of European or Caucasian origin was attending the school. A few students of Asiatic and Coloured origin were also enrolled at the school. The school had an average enrolment of 1000 students. The number of boys, with a proportion of 55%, was slightly more than girls. Naviana High School was headed by an elderly gentleman, Mr Nandi, and manned by a predominantly black African teaching staff of 51 teachers, 3 of whom were employed by the School Development Committee (SDC).

4.16.2 Biographic sketch of Mrs Musi

Mrs Musi is a 40-year teacher with 18 years teaching experience. She is the head of department for geography. She has a B.Ed. in religious studies having studied geography at teacher diploma level. At the time of the research, Mrs Musi was studying for an M Ed degree at a local university. Her initial professional qualification is a Diploma in Education in geography and religious education from a secondary teachers' training college. Although Mrs Musi acknowledged the existence of the geography subject association, the Harare Province Geography Association (HAPROGA), she was not an active member of the association having last attended the association meetings some two years back.

4.16.3 Mrs Musi's classroom context and transactions

As part of gaining entry into the school I held an interview with the school head to explain how I intended to go about my research with Mrs Musi and her form 3 class. Even from this preliminary contact with school head I got the message that implementation of the competence-based curriculum posed challenges for schools. The school head complained that:

... [t]he new curriculum is difficult to implement due to a serious shortage of relevant textbooks and other needed materials.

I observed Mrs Musi teaching a form 3C class which had a total 26 learners. The lessons observed were on *Wetlands*, *Drainage Patterns* and *Precipitation*. The lessons were mostly conducted using a question-and-answer approach. Figure 4.9, which is the introductory part of the lesson on *Wetlands*, highlights some of the teacher-pupil interactions found in Mrs Musi lessons. The excerpt is also a basis for understanding what the teacher thought about the subject content, classroom interactions and learners. With regard to learners, such understanding pertains to what Mrs Musi regarded as the learners' role in knowledge generation and the kinds of chances or opportunities provided for them to interact either among themselves, or between themselves and the teacher or among themselves and materials or artefacts in the lesson.

1. **Teacher (Tr):** -Okay class. Eh-e we are going to look at the wetlands. What are wetlands? What are wetlands? Yes?
2. **Student (Sdnt):** (Inaudible)
3. **Tr:** Can you speak up!
4. **Sdnt:** It is a place with a lot of water underground. Place with water underground.
5. **Tr:** A place with a lot of water underground. Place with water underground. (Tr **revoices learner contributions-TAre**) Someone else with a different answer? Yes?
6. **Sdnt:** I think they are places where there is high rainfall which results in a lot of water underground. **Tr attempts to encourage learner involvement - TAlO**
7. **Tr:** Places where there is high rainfall which results in a lot of water underground. (TAre) Someone else with a different answer. Wetla.....yes? **[attempts at TAlO]**
8. **Sdnt:** Places where people benefit from underground water.
9. **Tr:** When we look at wetlands we are saying it is an area that is wet and the area is covered by water. Have you ever heard of the word waterlogged?
10. **Class:** Yes
11. **Tr:** So we are saying wetlands are those areas which are waterlogged and they are normally low lying areas. So you find out that when it rains, it doesn't matter whether the area receives high rainfall or low rainfall but we are saying it is a low lying area. So when it rains the water will flow from those highlands and will collect in low lying areas. That area becomes waterlogged and we call that area waterlogged area (**dominant teacher talk - CS ttj**). So we have different types of wetlands. Anyone to give an area which is waterlogged? **Dominant teacher-learner flow/exchange or univocal communication -(CS tlf)**
12. **Sdnt t:** Russia
13. **Tr:** Russia? Ahh! No-o! We are not giving the examples of areas but we saying the type of wetland.
14. **Sdnt:** Fens
15. **Tr:** Fens very good or a bog or it can be called a dambo which is an area that is waterlogged. Is a bog. *Tinoti bog chii paChiShona?* (What do we term a bog in Shona?)

Figure 4.10: Excerpt of Mrs Musi's Lesson on *Wetlands*.

In the lesson vignette presented in Figure 4.10, an abrupt introduction which delved straight into the lesson was given (line 1). Though the teacher's questions probed into the concept of wetlands, the build-up of the question-and-answer session was rather lengthy (see attempts to involve learners [TAlO] lines 1-10). A case can be made that such an introduction fails to induce the requisite set for the lesson which should have the function of generating learners' interest and posts them for heightened involvement in the ensuing lesson. This could have been more focused leading to meaningful learning. The introduction turned out to be a rather challenging process characterised by the teacher revoicing of learner contributions (TAre - lines 5 and 7).

Mrs Musi failed to capitalise, and thereby fruitfully develop or extend, on a learner's concept of a wetland as an area with underground water (lines 4 to 5). In not building on the learners' contributions, Mrs Musi may have missed the opportunity to unravel the thinking and understandings behind the learners' responses. This may have been aggravated by what seemed like the teacher's inappropriately phrased questions. The questions also showed inadequate content mastery. For example, the question posed in text 11: "*Anyone to give an area which is water-logged?*" was very broad. The subsequent learner response of 'Russia' (line 12) as a waterlogged area was, *in senso stricto*, neither totally wrong nor right. It turned out that the teacher's question itself was too broad since she was actually soliciting a response related to types or forms of wetlands as borne out by her reaction to the student response that is:

Russia? Ahh! No-o! We are not giving the examples of areas but we are saying the type of wetland.

However, line 11 asks for an area. Another example is a learner's contribution of wetland as an area with underground water (line 4) which was not used as a useful tag-on point (line 5) to build on her subsequent definition of wetland (line 9) as '*a waterlogged area*'. Her definition could have been linked to the learner's idea of '*underground water*' by showing that a wetland is essentially where the underground water or the water table comes out of the ground to cover an expanse of the ground surface with water. Thus, in the manner the lesson unfolded, the teacher failed to build on to learners' contributions by engaging, developing and linking their ideas geographically in the context of the lesson. The ideas on wetland proffered by learners were, in the main, not used as a springboard for steering lesson transactions or exchanges in the desired direction of understanding or defining wetlands. The failure to steer and build on to learners' understanding placed the teacher in a prime position as the main, if not the only, legitimate source of correct geographical knowledge in the lesson. Resultantly, the teacher ended up suggesting a more or less textbook or standard definition of what wetlands are (CStt 11 and line 9). The teacher could not utilise the learner-centred pedagogy-related dimension of access which relates to opportunities afforded to learners to be legitimate producers of knowledge in a lesson (Schoenfeld, 2013). Though the teacher's request for someone else with a different answer (lines 5 and 7)

was an attempt at creating a classroom community characterised by inclusiveness and chances for learner engagement and participation, these attempts at building learner access were rather superficial and fell flat without yielding much (lines 7 to 15). The attempts at engagement, as has been argued earlier, failed to meaningfully use learner knowledge as a basis for knowledge construction.

In the subsequent post-lesson-observation interview, I asked Mrs Musi her view on the apparent difficulty of steering learners towards desired answers and meaningful dialogue. She was of the opinion that:

... the pupils' answers are mainly one-word responses or nearly always wrong such that even if one wanted to involve them, this turns out to be cumbersome. One ends up providing the required explanation.

Such 'forced teacher explanation' resulted in limited use of learner answers or contributions in lesson development. However, if such contributions can be assumed to reflect learners' understanding of a lesson's goings-on, their low occurrence meant low learner participation in knowledge construction in the lessons. Similar instances of dominant teacher exposition are also evident in the following annotated vignettes on the other two lessons that I observed.

1. **Tr:** The hail stones don't just fall alone, they will be having water, they fall with the water?
2. **Class:** Yes
3. **Tr:** That is what we call precipitation. So let's focus on the formation of rainfall. How is rainfall formed? We have to go back to the water cycle. *Handiti kaa?* (Is that so?). ... The first process ... evaporation we are saying the water is heated by the sun, it turns from being a liquid to a gas. What is the name of the gas? Yes?
4. **Sdnt:** Water vapour
5. **Tr:** Water vapour. So we have our water vapour which is now ascending or rising ... into the atmosphere. ... that's the evaporation because we are saying the water is being changed from being a liquid to a gas when it rises into the atmosphere. When it rises into the atmosphere what happens to that water vapour? Yes?
6. **Sdnt:** Inaudible **Dominant teacher talk (CStt) that ends up soliciting short simple or convergent answers (See e.g. lines 4 and 8).**
7. **Tr:** Does it fall or it condenses. What is to condense? To cool down. What causes that water to cool down? What might be the cause? Yes?
8. **Sdnt:** Moisture.
9. **Tr:** Is it the moisture? Yes?
10. **Sdnt:** The clouds.
11. **Tr:** The clouds?
12. **Sdnt:** Low temperatures
13. **Tr:** Very good. Temperature which is low. Which is in the atmosphere. So we have what is called the condensation level that is the level where the cooling will start ... and also the formation of clouds that is what we call condensation. ... We are saying the water droplets will stick either around the dust particles or the smoke particles. Who still remembers the formation of clouds? Because *mvura iyoyo ndiyo inozogadzira makore kaa? Handiti patakabuda panze takataura kuti makore anogadzirwa sei!* (Because the water, it is the one which forms the clouds? Like when we went outside we talked about how clouds are formed!)
14. **Class:** Yes! **Teacher explanation intercepted with some code switching**
15. **Sdnt:** They are made up of small droplets.
16. **Tr:** Water droplets, he's saying the droplets they stick around dust or smoke particles. Dust behaves like a magnet. *Handiti kaa?* (Is that so?)
17. **Class:** Yes → **Choric response**
18. **Tr:** ... Remember clouds are made up of water. *Saka mvura iyaiya yese iya yatinoti mhepo ndiyo inozogadzira chii? Makore!* (So the water all of it that we call air will form what? Clouds!). Then when the clouds are formed they will then release precipitation as rainfall. *Handiti!* (Alright!). That is how rainfall is formed. So we have to look at the two major processes, that is evaporation and condensation, that will lead the formation of rainfall. *Handiti kaa?* (Is that so?)
19. **Class:** Yes → **Choric response**
20. **Tr:** So *pa* condensation *tirikutaura nezve* (so on condensation we are talking about), the cooling effect and the formation of clouds then later on we have rainfall that is received but let's look at the other processes of the water cycle.

Figure 4.11: Mrs Musi's Lesson Excerpt on *Precipitation*.

The lesson excerpt in Figure 4.11 brings out how Mrs Musi dominated the learning episode through lengthy expositions spiced with a fair amount of code switching to

mother language usage that is Shona as L1 (**lines 13 to 20**). When she gave learners a chance to participate, it was mainly through questions (**end of lines 3, 5 and 7**) that required short one-word answers (**lines 4, 7 and 12**) respectively. A scrutiny of learner responses shows that, apart from being one-word or short sentence or phrase answers, the responses were, in the main, on the descriptive and recall side (lines 4 and 12).

This contradicts her earlier cited complaint that:

... the pupils' answers are mainly one-word responses ... One ends up providing the required explanation.

The evidence from excerpt Figure 4.11 suggests that it was her style that invited one-word responses since she posed recall one-word or short answer questions to the class. Thus evidence from classroom transactions in Figure 4.11 suggests that the issue of supposedly 'forced teacher explanation' implied in her foregoing response, was partly compounded by inherent teacher traits to delve in rather lengthy explanations, ask for one-word answers and habitual code-switching to L1 (Shona) usage. These apparently contributed to her dominating the lessons through teacher-talk. Figure 4.12 is yet another excerpt of Mrs Musi's geography lessons.

1. **Teacher (Tr):** Right, so our first drainage pattern we said it's what?
2. **Student (Stdnt):** Dendritic.
3. **Tr:** Dendritic! Dendritic! What is the structure of a dendritic drainage pattern? ...
4. **Stdnt:** (Answer inaudible)
5. **Tr:** At an acute angle. Good. Which kind of rocks are suitable for the development of a dendritic drainage pattern? Which kind of rocks are suitable for the formation of a dendritic drainage pattern? Yes! **Dominant teacher talk – (CStt) built on learner short answers.**
6. **Stdnt:** Rock of uniform structure
7. **Tr:** Right, rocks of uniform structure are suitable for that. Let's move to radial, which is where we ended in our previous lesson. Radial drainage, radial drainage. This one forms the structure of....the structure of a bicycle and its spokes. Streams are flowing from a highland downstream. The streams are flowing on the side of either a highland or a mountain. And the diagram for a radial drainage is very simple probably this is our highland and we are saying the streams are flowing outward. **(Tr draws diagram on the chalkboard - Effective use of chalkboard or LSM – LRe)**
8. **Tr:** The next one is a trellis drainage pattern, trellis or trellised drainage pattern. For trellised drainage pattern you would find sometimes it's called what? Sometimes it's called what? For those who have done the advanced research. If you look at the structure that is formed by trellised drainage pattern it can also be called what? Yes?
9. **Stdnt:** Rectangular drainage. **Teacher talk (CStt) and convergent questioning.**
10. **Tr:** Very correct it can also be called rectangular drainage pattern. It can be presented under rectangular drainage pattern. This one is formed in...is formed in areas of highly fractured rock, highly fractured rock. What is a fracture; I think this is not the first time I have asked about this question. What is a fracture? What is a fracture? Rinashe ?
11. **Stdnt:** A crack.

Figure 4.12: Vignette on River Drainage Patterns Lesson.

A scrutiny of the lesson vignette on *Drainage Patterns* (Fig 4.12) further illustrates teacher domination as well as other traits in Mrs Musi's lessons. In this particular lesson, Mrs Musi asked a recall type question: *What is the structure of a dendritic drainage pattern?* (line 3). While she did well to acknowledge a learner's answer by responding, "At an acute angle. Good" (line 5); the answer, *in senso stricto*, refers to the drainage concept of shape or pattern and not structure. This is because the learner's answer refers to tributaries joining the main river at *an acute angle* hence making up a tree-like or dendritic shape of the river system. In so doing, Mrs Musi at best equated or at worst confused the concept of *shape* with *structure*. The two concepts are different since shape refers to pattern or network of streams when looked at from above. The idea of structure would normally refer to how the network of streams or pattern or shape is

controlled by underlying rock (Small, 1989). The subsequent questions (in lines or text 5, 8 and 10) were simple recall or closed type questions. The questions failed to create opportunities for learners to engage in higher level geography thinking or what Schoenfeld (2013) calls the attribute of accountability. Such failure to involve learners in high level thinking can be illustrated by the dialogue or events around the question: *Which kind of rocks are suitable for the formation of a dendritic drainage pattern?* (line 5). The response by a student that it is ‘*rock of uniform structure*’ (line 6) was not probed further to get to the bottom of the learner’s understanding of how this happens. Instead the teacher proceeded to talk of another pattern, namely radial drainage. This instance exemplifies a situation where the teacher solicits for learner contribution and is satisfied with a recall or a short phrase type response. In so doing the teacher can be said to miss a critical learning moment which, in the case of *Drainage Patterns* lesson, may have been a higher order probe. For example, *how does a uniform rock structure result in dendritic drainage pattern?* Such probing could have been in line with Mrs Musi’s focus on the lesson, which she claimed, in a subsequent post-lesson observation interview, was to have “*pupils able to describe and explain common drainage patterns.*” Thus the need to *explain drainage patterns* or *how rocks influence drainage patterns* was a central concept in this lesson on *Drainage Patterns*. Probing how uniform rock influences dendritic drainage pattern was a legitimate line of inquiry which, however, was not pursued. Furthermore, such engagement with *how uniform rock influences dendritic drainage pattern* could have provided a suitable point of departure to look at the other drainage patterns like radial drainage and trellis drainage. These patterns offer different ways as to how rock structure controls drainage patterns. Effective learner-centred pedagogy might have been enhanced by establishing and developing a clear link between learner understanding and the meaning and relationship between geographical concepts of drainage pattern or shape and rock structure. However, learners were not afforded the opportunity to contribute to knowledge construction through probing questions around these concepts, a process Schoenfeld (2013) terms the dimension of learner productivity, which is an attribute of learner-centred pedagogy. In addition, the way the lesson unfolds in the excerpt in Figure 4.12 represents a missed opportunity to enhance the dimension of accountability (Schoenfeld, 2013) which relates

to the teacher expecting or demanding high geographical understanding and standards from his or her learners. Mrs Musi's lesson can be said to have demonstrated a lesson episode with low learner-centredness since it lacked opportunities or affordances for both learner meaning making (learner productivity) and for them to engage in high level explanation (learner accountability).

4.16.4 Mrs Musi's understanding of the need for learner-centred pedagogy

To find out Mrs Musi's understanding of the new curriculum's requirement to use learner-centred techniques in the teaching and learning of geography at form 3 and 4 levels, data derived from the teacher's reflective journal entries (Appendix 12), simulated vignette responses to given teaching-learning scenarios (Appendix 13), a self-checking learner-centred instructional practices gauge (Appendix 14), and a post-lesson-observations interview (Appendices 4 and 5) were examined. With regard to her simulated vignette response, Mrs Musi preferred the scenario depicted in Room 2. This scenario, according to her, emphasised teamwork, greater learner involvement with content, teacher-learner interaction and that *'each learner is given a chance to explore and express herself and himself in the discussion held (and) the teacher facilitates the learners, guiding learners and not leading them.'* Mrs Musi scored 51 out of a possible maximum of 80 with respect to the calculated score on the learner-centred practices gauge (Appendix 14). This score falls within the 45 to 64 category which, according to the guiding key on the qualitative meaning of the scores, portrays Mrs Musi as a teacher who *"... knows the value of learner-centred teaching which [is utilised] where and when appropriate issues and materials are available."* With such a score, the teacher is urged to *"[w]atch out on learner-centred teaching opportunities so as to use them with your learners"*. Interview data further confirmed this belief, enthusiasm and label on learner-centred pedagogy as Mrs Musi argued that:

It's good to use the learner-centred teaching. The amount of activity in a lesson is the responsibility of the teacher. Interaction among learners, between learners and the teacher and between learners and teaching-learning media makes learning more interesting as learners are involved. It makes lessons lively. The teacher becomes a co-learner with his or her pupils.

In the post-lesson interview with Mrs Musi, I took up the issue of the need for deeper probing and building on learners' contribution, which was missing in the observed

lessons especially the one on *Drainage Patterns*. I put it to Mrs Musi that, “*I would say in some instances you did not allow pupils to participate. What is your take on that?*”

The teacher restated her belief that:

... learners should take part in generating knowledge. The teacher is a guide and facilitator in the learning process. I admit that I tended to talk a lot. However, I still believe that lessons should be based on learner contribution by affording them the chance to give their views or understanding on a particular concept.

This response underscores a teacher who appreciated the need for learner-centred pedagogy in line with the *ZCF 2015-2022*’s call for a “changing role of teachers [so as to] become facilitators of learning” (*ZCF*, 2016:9). In fact, Mrs Musi displayed a high level of enthusiasm for the learner-centred pedagogy drive with her post-lesson-observation interview responses punctuated by pro-learner-centred pedagogy phraseology and vocabulary in which the teacher is described as ‘*facilitator*’, ‘*guide*’ and ‘*co-learner*’. Overall, Mrs Musi’s claimed or espoused learner-centred teaching as evident through self-reporting instruments contrasts with evidence from the actual observed teacher-centred lessons. This speaks of Mrs Musi’s awareness of the need for the learner-centred pedagogy change, which awareness, however, fails to materialise in the observed lessons. From her pro-learner-centred views, it seems that the failure to achieve learner-centred pedagogy is not because Mrs. Musi did not appreciate the need for learner-centred teaching. Rather, this was apparently the result of a pedagogical inability to turn lessons into learner-centred episodes. This pedagogical shortcoming is further scrutinised in the following remaining sections on the case of Mrs Musi.

4.16.5 Synthesis of Mrs Musi’s cognitive sense-making as an implementer of learner-centred pedagogy

Responses to self-reporting instruments and interview exchanges indicated Mrs Musi appreciated the need for adopting learner-centred pedagogy. However, her classroom teaching mainly depended on a question-and-answer approach which was poorly executed to yield effective learner understanding. Her failure to utilise learner responses to build on to the lesson meant that she ended up explaining the concepts herself instead of arriving at meanings through more focused use of learners’ answers or better skills

of questioning as scaffolds to the desired conceptual understanding. The ineffective and superficial implementation of learner-centred pedagogy could be said to be a result of inadequate pedagogical content knowledge. This was suggested by the unclear explanation and questioning of concepts of shape, pattern and structure of drainage system linked to lesson vignette Figure 4.12. The teacher's pro-learner-centred pedagogy beliefs did not go hand in hand with the pedagogical skills exhibited through classroom transactions. Furthermore, Mrs Musi's lessons deviated a little from the traditional contributive question-and-answer-based dialogue in which the student answers in classroom interactions are not fully explored or used to develop relevant and deeper explanations or understandings. Flagship policy documents like the *Teachers' Guide, Circular No. 2* (2017:9) and the January 2017 Ministerial Launch Statement: *Ground Zero* (Slide 24) require teachers, as implementers of the new curriculum, to have ownership of the curriculum and develop an in-depth knowledge of content and the appropriate teaching methodologies and approaches. In failing to execute learner-centred pedagogy effectively in the observed lessons, Mrs Musi could be said to have lacked such in-depth teaching methodologies and approaches.

The failure to use learner-centred pedagogy could be an inability to turn classroom interactions into meaningful opportunities for active student-centred learning. The challenge illustrates the teacher's inadequate pedagogical skill to maximise on potential learner-centred situations in the classroom. In general, the teacher's claimed preference for learner-centred pedagogy as evident in responses to self-reporting instruments and interview responses, was not borne out in the observed lessons. This situation could be described as 'a paradox of good intentions' where claims are not actuated in the reality of classroom exchanges. Indeed, hers was a situation in which the enthusiasm for learner-centred pedagogy was not matched by actual practice in observed lessons. In American parlance, the lessons were '*lots of sizzle but no steak*' since the transacted lessons did not live up to the professed learner-centred learning and teaching claims. This problem of failing to meaningfully involve learners, even though the teacher wanted to, manifests 'dynamic conservatism' (Cohen, 1990; Blenkin *et al.*, 1992). To her credit, it should be said that the teacher acknowledged student answers and revoiced these answers with remedial feedback at times. However, little was done to utilise learner

responses as a basis for further learning by building and developing on learners' answers.

4.16.6 Conclusion on Mrs Musi's case

Mrs Musi demonstrated teacher-centred lessons in which the interactions between her and learners portrayed teaching as a process of teacher presentation and explanation of content with learners mainly responding to low level teacher questions. Consequently, the teacher failed to build on learner answers thereby placing herself in the unenviable position of having to provide teacher generated explanations which did not expand on learner contributions. The potential to build on learner responses in line with content issues germane to the lessons was high, *albeit* underutilised. Mrs Musi's comment in her self-reflective journal, part of which was earlier reported in **Section 4.7.3.4** on analysis of policy documents was:

I was wandering how it could be possible to teach geography, looking at the number of topics that should be covered in one year. Twelve topics are too many for form 3 levels. The syllabus seems to be too long and it's not possible to cover in 3 terms allocated on the school calendar. In the old syllabus, the 12 topics were covered in 2 years, physical in form 3 and human in form 4.

In her opinion, the new curriculum is too heavily loaded to allow effective geography teaching. Though she did not draw a causal link between her ineffectual use of learner-centred pedagogy and the curriculum overload that she alluded to, this was implied since she proffered this challenge as one which undermines effective adoption of the new curriculum.

4.17 Case 3: Mr Mtero – A Latter Day Socrates?

In this section, the story of Mr Mtero is described, starting with the institutional context in which he taught. As with other cases in this study, data generated through reflective journaling, responses to a learner-centred practices gauge, a simulated vignette account, lesson observations and post-lesson-observations-interviews, form the basis for portraying Mr Mtero's teaching in the wake of the *ZCF 2015-2022* learner-centred instruction reform initiative.

4.17.1 Chinhamo Mission: Portrait of the school

Chinhamo Mission or Secondary School is a long established co-educational boarding school with classes from form one up to sixth form level. At the time of the study Chinhamo Mission was headed by an elderly gentleman under whose supervision was a teaching staff complement of 21. The student enrolment was 761 learners, making it a medium size boarding school. Established at the end of the 19th century, the school was the product of early Christian missionary efforts to educate, evangelise and convert the African indigenous populace in the newly established Rhodesia under the British South Africa Company. Though the provision of secondary level education came in the 1950s, the mission school still represents an educational lighthouse in the backdrop of a typical rural communal subsistent peasant economy. Given its long history as a leading educational, religious, social services and training centre, the school attracts students from all corners of Zimbabwe, with most coming from the capital city, Harare, which is some 50 kilometres away.

4.17.2 Biographic sketch of Mr Mtero

Most of the biographic information on Mr Mtero was derived from the post-lesson interview and other submitted documents. Mr Mtero, aged 31, was in his 5th year of teaching. He holds a secondary level teaching diploma after training as a geography teacher. Mr Mtero was pursuing part-time post-diploma undergraduate studies in education. As would be expected of one who is in the early years in the profession, Mr Mtero was an ordinary teacher with no post of special responsibility. Mr Mtero was not an active member of any local geography association.

4.17.3 Mr Mtero's classroom context and transactions

I observed Mr Mtero teach three lessons on *Revision of multiple-choice Physical Geography Paper Examination, Bio-fuels: Wood fuel and Bio-fuels: Biogas*, at form 3 level. Figure 4.13 is a vignette of part the lesson on *Revision of multiple-choice examination paper*.

1. **Teacher (TR):** Question number 15, (**The question had some temperature readings as stimulus material**). Which one is the most humid or dry day? When we say most humid, what does that mean? This is the day when humidity is highest. Dry means humidity was very low. When the day has high humidity, we expect the difference in the wet and dry bulb (**temperatures**) to be what? Large or small?
2. **Student (Sdnt):** It will be small. **Teacher provides feedback –TAfb**
3. **TR:** It will be small. The day with low humidity that is when it is dry and the difference in the wet and dry bulb is large. So here you subtract. From day one to day five. Day with the largest difference is the driest and smallest difference is the most humid. So let's subtract and write down the differences. 24-22, 26.5-18, 27-15, 27.5-20. Then the day with the largest difference is dry, low most humid. So let's calculate writing the answers down there. That's where you were supposed to write down the answers after workings. This paper is clear, meaning the person never calculated a thing. Day 1!
4. **Sdnt** -2
5. **TR:** day 2? **Class** -8.5
6. **TR:** day 3? **Class** -12 **Teacher affords learners ownership [TAlo]**
7. **TR:** Day 4? **Class** -7.5 **Authority distributed equally/equal power**
8. **TR:** Day 5 **Class** -13 **relations/ community of geography practitioners. [ePR and CS II/Itf]]**
9. **TR:** The largest difference is what? **Sdnt** - Day 5
10. **TR:** Smallest difference? ... **Sdnt** - Day 1
11. **TR:** So the day with the largest difference is the most humid and smallest difference is dry. Ahhh no! The largest is dry, small humid. So humid day1 then dry day 5 which is what?
12. **Sdnt:** B
13. **TR:** Anyone with a problem? **Inaudible noises from students.** Look at the difference between the bulbs...?

Figure 4.13: Excerpt on Revision of Multiple Choice Examination Paper in Form 3B.

Figure 4.13 illustrates a question-and-answer session in which the teacher solicited the correct multiple-choice answer or key. Teacher explanation was around the correct concept or answer. In the lesson, this exposition process degenerated into a teacher-led exposition since it became necessary for the teacher to explain the correct answer (as in lines 1, 3 and 11). In the excerpt, the teacher demonstrated a good question and answer method of how to determine the correct answer on the relationship between dry and wet bulb temperature readings and atmospheric humidity. The guiding principle that *'the day with the larger difference is the driest and the smallest difference is the most humid (line 11)'* was clearly spelt out and learners were able to apply it. Learners were

able to come up with the correct answer since the principle of how to determine a dry or humid day, as indicated by the difference in dry and wet bulb thermometer readings, was drilled into learners. Such active learner involvement in the learning process is along the lines which the *ZCF 2015-2022* reform stipulates (CS II/Itf and ePR lines 4 to 11). Although the class provided the correct answers, an explanation of the principle why *'the day with the largest difference is the driest and smallest difference is the most humid'* (line11) was not given.

In the foregoing vignette, the teacher neither explained nor asked the class to explain this important geographical relationship between dry and wet bulb thermometer temperature differences and atmospheric humidity. In the post-observation interview, I asked why the teacher had not explained this relationship. Teacher Mr Mtero replied: "I assumed that the students knew the reason for the relationship between humidity level and readings on the dry and wet bulb thermometers." However, in our discussion on the matter, we settled for the position, as Mr Mtero put it; "... one cannot not tell whether students could explain why or how the dry and wet bulb temperatures came to be different or the same and what this meant for humidity." Thus the fact of learners giving or calculating correct answers without having been exposed to the *how* and *why* may actually have been a parody of the underlining geographical meaning.

While there was good use of the question and answer method, the way the teacher steered the pedagogic exchanges eschewed questions soliciting deeper understanding. In line the teacher's invitation to *'Anyone with a problem?'* (line 13) produced inaudible rumblings which the teacher nipped off by admonishing the class to "[l]ook at the difference between the bulbs, (the wet and dry bulb)!" However, it may be suggested that a more astute teacher response could have been to take such rambling as a cue to explain the principle behind the wet and dry bulb temperatures and humidity levels. Classroom dialogue and routines and the non-verbal forms of communication or occurrences accompanying them, such as learner rumblings, comprise legitimate patterns of classroom interaction which could have warranted further probing hopefully contributing to learner-centred pedagogy. Mr Mtero's classroom behaviour was further explored in two observed lessons represented by Figures 4.14 and 4.15.

1. **Teacher (Tr):** ... Right today we want to talk about biomass fuels. What do you understand by the word Biomass? ... From your Science lessons, Agriculture lessons: What is biomass? Yes? ... **Class:** Natural resources!
2. **Tr:** Natural resources. Can someone expand on that? Clarify. Yes? ...
3. **Tr:** Right, let me give you a textbook definition, can you write that? Biomass Energy sources are derived from plants and animals. ... e.g. wood (wood), charcoal, plant residue and animal waste). We all know wood. *Handiti* (isn't it)?
4. **Class:** Yes **Teacher probes learner answers & learners afforded ownership[TAlo] Learners participate [LAd]**
5. **Tr:** Cow dung, mm hmm. (cow dung) what – what else? Huh? Even human waste *Handitka* (isn't it)? **Students laugh** ... Human waste *Handitka* (isn't it)? Right, iyo iya sewage iyo iyaiya! (That very sewage, that very one!) Can be used to produce biofuel, *Handiti* (isn't it)? But we want to talk about wood first. What are the uses of wood in Zimbabwe?
6. **Sdnt:** Curing tobacco. ... **[Learners through a question and answer session proffer answers on uses]**
7. **Tr:** There are dangers to the use of wood. What are some of the dangers that are associated with ...use of wood? Yes? 8.**Sdnt::** Deforestation
- 9.**Tr:** Rampant cutting.... It's rampant cutting down of trees. In other words we are saying someone is just doing it without control. Isn't it? Right, so we expect that if you cut one tree especially indigenous trees, you replace with how many trees?
- 10.**Stdnts:** Two!
11. **Tr:** Huh? What is the policy for cutting down trees? You cut one tree, you'll replace with how many trees? **Stdnts:** Ten!
12. **Tr:** More trees, isn't it? **Students laugh.** You replace with more trees, heh? Why, why would someone replace with more trees? Because our indigenous trees take a long time to grow, *Handitika* (isn't it)? ... **Tr tags and builds on Sdnt contributions &relies instructional questions**
13. **Tr:** Right what are the other problems/dangers of cutting down trees, yes?
14. **Sdnt::** Soil erosion. — **TAuniv/CSItlf] or Incremental question and answer approach -TAlrqa**
15. **Tr:** Soil erosion. How is soil erosion caused by the cutting down of trees? Yes?
16. **Sdnt:** Exposes plant root that bind soil
17. **Tr:** *Handitka* (isn't it)? Right, the tree roots are responsible for binding the soil, isn't it? If we cut those trees, it means the ground becomes bare and water surface flow increases and soil is washed away. Right, what are the other problems? **Learner contribution to knowledge making - LAprd**
18. **Sdnt::** Disturbance of the ecosystem. 19. **Tr** Ugh!
20. **Tr:** Right, disturbance of the ecosystem. Can you further explain that? 22. **Sdnt: Inaudible**
23. **Tr:** Disturbance of the ecosystem. How is the ecosystem disturbed by cutting down trees, yes? 24. **Sdnt:** ...
25. **Tr:** Right, some animals, they use trees as a source of food, for shelter purposes, *handiti* (isn't it)? So if you cut down these trees, it means that these animals that depend on the trees will no longer have food, and they will die. By so doing we have disturbed the ecosystem. Alright, what are the other problems, yes?
26. **Sdnt:t:** It causes desertification.
27. **Tr:** It causes desertification. Desertification, what is desertification? I always want to know if you know what you are talking about. What is desertification, yes? 28. **Sdnt::** Construction of deserts.
29. **Tr:** Construction? Can we say construction? ... Because construction becomes purposeful, isn't it? ... Yes?
30. **Sdnt::** Desertification is the destruction of the environment.
31. **Tr:** The destruction of the environment, yes?
32. **Sdnt:** The process leading to the formation of deserts.
33. **Tr:** Right! The process leading to the formation of deserts, *handitika* (isn't it)? An area is now experiencing desert conditions, *handiti* (isn't it)? Right, so if we cut down trees, we experience desert conditions. That process of becoming desert is called desertification. Right, what are the other problems of cutting down of trees, yes?
34. **Sdnt:** Global warming.
35. **Tr:** Leads to Global Warming. Global Warming, I'm sure you know what is Global Warming. Right, what else, yes? **Tr does not tag (as before) on Sdnt answer 'global warming' but does in 37.**
36. **Stdnt:** It causes land degradation.
37. **Tr:** It causes land degradation. What is land degradation? ... The quality of land is reduced,[...]that's land degradation. Right [...] the use of wood causes these dangers or problems. What are the solutions? Yes?

Figure 4.14: Biomass Fuels (Wood Fuel).

In Figure 4.14, which is a lesson excerpt on *Wood fuel*, Mr Mtero demonstrated a good question-and-answer approach which utilised, built or tagged on learners' answers in the conduct of the lesson (lines 8 to 33). In the initial stages of the lesson (line 1), the teacher posed the question: *[w]hat do you understand by the word Biomass?* He then probed learners by hinting that they may have covered the concept *Biomass* in their Agriculture or Science lessons. Such reference to other learning areas is a central focus of the *Zimbabwe Curriculum Framework (2015-2022)* which highlights the need to broaden "... the range of domains in which we expect achievement from learners [and adopting an] integrated knowledge" (ZCF 2016: 10). Teacher's dialogue with the class and contributive questions clarified and validated learners' ideas (lines 8 to 33 - CS II/Itf). Such constant probing which permeated the lesson enabled learners to become actively involved in the learning process thereby contributing to knowledge production. Consequently, learners were likely to develop a sense of lesson ownership (LAd - line 1 to 7).

In this lesson, the teacher regularly probed his class to think critically and explain what they knew (LAprd). In this regard, this lesson had questions like: *What are some of the dangers that are associated with continuous use of wood, yes?* (line 7). The question was meant to solicit learner's knowledge on disadvantages of using this common source of fuel. The other question was: *How is soil erosion caused by the cutting down of trees? Yes?* (line 16). This was posed to probe a student's answer on soil erosion as a problem of using wood fuel. The questions are examples of the frequent use of how, why and explain items employed by the teacher in the conduct of the lesson. At some point in the lesson (line 27), the teacher declared to learners that, *'I always want to know if you know what you are talking about'*. This explanatory statement provided the teacher's *raison d'être* for the use of questions in lessons and had thus the potential to contribute to learner critical thinking which attribute the new curriculum advocates.

The teacher's teaching approach in this vignette (Figure 4.14) was however not without some dark spots. Having adopted an approach in which when learners identified a problem to the use of fuel wood, the teacher would either ask the class to explain or would for the most part undertake to explain, with considerable zest, the nature of the

problem. Refer to explanation to problems like soil erosion (line 18), disturbance of the ecosystem (line 25) and desertification (lines 26-33). On the problem of global warming (lines 34-36), the teacher abandoned the common expository routine to gloss over a learner's contribution about global warming with the remark that, '*It (deforestation) leads to global warming. I am sure you know global warming.*' In the post-lesson-observations interview, after both of us listened to the audio-taped lesson, I asked Mr Mtero; "[do] you not think that your coverage of global warming was rather skeletal when contrasted to your coverage of other problems?" Mr Mtero replied:

The issue of the emission of greenhouse gases like carbon dioxide leading to global warming is very technical. I just thought it too complicated to explain to the form 3 class. One needs to have their facts correct when tackling and explaining the link between the concepts of forests, deforestation, the carbon dioxide sink and global warming. However since the problem had been initially raised by students (line 34), I may have thrown it back to the learners. If their answers proved unsatisfactory I could then have given them time to research on the topic to report on their findings sometime in future.

In yet another lesson vignette, Figure 4.15, on *Biomass fuels: Biogas fuel*, Mr Mtero demonstrated a number of learner-centred teaching attributes as illustrated by the bracketed or bolded annotations and coded texts in the excerpt below.

1. **Teacher (Tr):** Right, another form of Biofuel is Biogas. Biogas. So, what I want you to do in pairs, I want you to draw a simple diagram of a biogas digester.
2. **Students (stdnts):** *Murmuring ...*
3. **Tr:** Yes gas which we call “Bio-gas”. Can you do that? (*noise from students*). Right ehh ... the reason I asked you to draw or to picture -ehh- a biogas digester, a bio-digester is simply a plant that is used to produce bio-gas. Isn't it? Instead of just learning things from school, you should also be in a position to implement these things at home. You should actually use bio-gas at home isn't it. Right so suppose you are asked to construct a biogas digester at home what do you do? *Unobva wati handizvize?* (Will you say you cannot?) **Learners engage in dialectic/discussions – LAd. After pair work on drawing or sketching a bio digester/ Learners learn from peers -LAd /LAprd**
4. **Class:** Nooo!!
5. **Tr:** You should do something *handitika* (isn't it)? That something is what you do in your books.
6. **Tr:** (...). Is there someone who is willing to come and reproduce their biogas digester? Yes? Ok just draw a simple diagram and be fast. **A learner goes to chalkboard to draw.**
7. **Class:** A- ahhh ahh!
8. **Tr:** Can you be quiet(after a pause) Right. Eh! Can you tell us what is happening in your biogas digester? (**Students laugh**)
9. **Stdnt:** Our waste has entered then this thing here will be the one to mix)(Students laugh)
10. **Tr:** Can you be quiet
11. **Stdnt:** *Kunzuka zviru mukati umu then pozobuda biogas* (mix what is inside then biogas comes out). ... Then the biogas will be transported to the kitchens, do you understand?)
12. **Tr:** Okay thank you very much. Can we clap hands for him? (**Students clap hands**). That's the idea. ... Ok someone else, a girl this time. (**Learners treated as equals – TAla**) Yes? Ehh! Can you quickly come forward? ... Some have good ideas. *Handiti? Is it not?* But they are not good at drawing.
13. **Class:** Yes!
14. **Tr:** So we want the idea and not the diagram. Uhuh! Okay lets be quiet? Right its coming out, I can see something. *Zvino digestwa* how?(How is it digested?) Are you a science student? Right ok thanks. Clap hands for her. Right. Can someone tell us what is happening in this? It might be a drum or something *handiti (isn't it?)*. Ehe? What is happening in that digester huh? ...
15. **Class ...**(Class starts to make some noise)
16. **Tr :** Quiet. That's what she's thinking. The last one please. Yes?
17. **Stdnt::** What I personally think is that in the drum the different matter will mix together and that is when biogas is formed ... **Learners afforded ownership/Teacher uses learner ideas as basis for learning and explanation –TAla**
18. **Tr:** Ropafadzo said they are using cow dung as a raw material to produce biogas *Handiti* ?(Isn't it?). So what happens is that cow dung is put into this biogas digester and we pour some water into this biogas digester *handitika* (isn't it), we mix then it is closed. The rotting of that cow dung the process of decomposing, the bacteria that is responsible for this process is called what? Science students? The bacteria that is responsible for decomposition is called what? ... Aha! Decomposition of that culture will produce methane gas and then that methane gas accumulates because there is a space and accumulates on top of the biogas digester and so there is a pipe that will transfer the gas to the house where it is used for cooking.) Isn't it? Right, *saka* (so) when ehhh cow dung has been exhausted it is ehh removed from the biogas digester and it is thrown away and new cow dung is put in there. So besides cow dung you can also use plant waste ehh for example sugar molasses *handiti* (isn't it)? Right.so you are able to solve problems at home if you do not have electricity huh? Are you able to go and construct a biogas at home?
19. **Class:** Yes!
20. **Stdnt::** May I please ask? **Learners given chance to question/reflect on learning -LAqr**
21. **Tr:** Yes.
22. **Stdnt:** So if we for example take the gas tanks available these days and collect using a pipe...
23. **Tr:** Yes you can actually fill that tank up with biogas and use it later. Yes it's a gas, methane gas *handiti* (isn't it). Yes. Right because of time we are not able to proceed.

Figure 4.15: Lesson Vignette on Biomass Fuels (Biogas Fuel).

Figure 4.15, a lesson vignette on *Bio gas fuels* highlights Mr Mtero’s attributes of: (i) allowing learners to engage in dialectic exchanges or discussions (LAd (lines 1-8), (ii) using pair work for learners to learn from each other [LAlp] through the joint task of drawing or sketching a bio-digester (lines 1-8), (iii) creating chances for equal gender participation in lesson (line 12), (iv) affording learners ownership of lesson or using learner ideas as basis for learning and explanation (TAlp text 20), encouraging a competence-based and practical-oriented learning (lines 3-4 and 20) and (v) giving learners a chance to question/reflect on learning –LAqr (lines 24 -25). In encouraging a competence-based and practical-oriented learning (lines 3-4) and in lines 20-23, an element of learning for agency, that is, applying what is learnt in real life, could also be discerned. All these attributes can be said to broadly align with *ZCF 2015-2020* quest to “inspire selflessness, collaborative and cooperative dispositions which are central to the Zimbabwean outlook of sovereignty, inter-dependence, mutual support, self-reliance, responsibility and readiness to help others” (*ZCF, 2016:7*). It is important to realise that these attributes of ‘collaborative and cooperative dispositions’ are also part of what makes up learner-centred pedagogy (Krahenbuhl, 2016; Schreurs & Ahmad, 2012).

The lessons I observed Mr Mtero teach, though typical whole class question-and-answer affairs, were generally well paced with the teacher characteristically soliciting learners’ input on issues and concepts that constituted the content of the lessons. Mr Mtero made concerted and, in many instances, successful attempts through the question and answer method, to engage learners in understanding the content of a given lesson. This aspect of his teaching reflects the dictates of the *ZCF 2015-2022* in many ways as triangulated by the *Observation Schedule* (Appendix 15) entries for the three observed lessons. The entries in the observation schedule also highlighted the following teaching attributes:

- a) Linking prior knowledge to new knowledge meaningfully and mostly in the lesson introductions (Item 1 in *Observation Schedule*, Appendix 15).
- b) Classes being orderly with learners showing intrinsic discipline and shared purpose (Item 2 in *Observation Schedule*, Appendix 15).

- c) Use of learner experiential learning by soliciting learner knowledge on concepts. This included the organisation of content around current themes about real life issues (Item 6 in *Observation Schedule*, Appendix 15).
- d) Learner questions encouraged and respected (Item 11 in *Observation Schedule*, Appendix 15).
- e) The use of questions to promote learner-centeredness. Probing for more information on given answers was common (Item 13 in *Observation Schedule*, Appendix 15).
- f) Use of accessible language which, at times, involved code-switching into mother tongue or L1 usage (Item 28 in *Observation Schedule*, Appendix 15).

4.17.4 Mr Mtero's understanding of the need to adopt learner-centred pedagogy

The question of how Mr Mtero understood the need to implement learner-centred pedagogy was investigated, first, through a scrutiny of self-reported data from the teacher's reflective journal entries, vignette-response to stimulus lesson episodes and the teacher's score in a self-checking learner-centred practices gauge. Secondly, data were obtained through an analysis of classroom dialogue in observed and audio-taped lessons and a post-lesson-observation interview on the same lessons. In his response to two hypothetical or simulated scenarios on teaching and learning approaches used in Rooms 1 and 2, Mr Mtero preferred the Room 2 scenario. His reasons were that:

... it promotes effective learner-teacher interaction. It's learner-centred and ensures total learner involvement.

The teacher also had to respond to a request that accompanied the stimulated lesson episodes requiring teacher participants to: *Assume that you were the third geography teacher in the school described in the story. Referring to how you currently and typically teach geography at either form 3 or 4, in not more than one page, say what Antony Silson would have observed as your real-life-teaching episode.* In his response, Mr Mtero submitted a write-up on the following typical teaching-learning scenario backed by a detailed lesson vignette in Figure 4.9.

Mr Mtero outlined the background and lesson episode of a role play he had used thus:

The scene (of the role play) is a village gathering where communal or peasant farmers present their challenges to the Agricultural Extension Officer and the village head. After the role play the class is divided into groups to discuss the challenges faced by the farmers. Thereafter the teacher leads a class oral discussion on the challenges of communal farmers reinforcing on those raised earlier in the role play and whole class discussion. Learners are given a homework task of writing notes on “Challenges of communal farming and possible solutions.

The participant, Mr Mtero, gave the following write-up as the typical scene which an observer would encounter if he or she visited his class in Room 3.

Scenario observed in Room 3

Learners enter a room where a geography Form 3 lesson is about to begin. The topic of the lesson is “*Communal farming in Zimbabwe: challenges and solutions*”. The assumed knowledge is that learners come from different rural areas and have an idea of the challenges experienced by communal farmers. Also, the previous lesson was on the “*Distribution and characteristics of communal farming in Zimbabwe*”.

A question and answer session on the previous lesson is carried out.

Then a role play on the topic at hand is as follows:

Learner 1: - is the Village Head (*Sabhuku*)

Learner 2:- local Arex [Agricultural Extension] Officer (*Mudhumeni*)

Rest of the learners: - communal farmers

The scene is a village gathering where the “farmers” present their challenges to the “Arex Officer” and the “Village Head”.

After the role-play: the class is divided into groups to discuss the challenges faced by communal farmers linking these to those covered in the play. The teacher then leads a class oral discussion on the farming challenges and learners write notes.

Figure 4.16: Mr Mtero’s Vignette Account in Response to Simulated Lesson Scenarios.

Also the question-and-answer lesson episodes in which I observed Mr Mtero, the foregoing vignette-response highlights that he also used other teaching methods such as role play and group work. His rendition of the role play as given in the foregoing description and vignette shows someone who understands the role play method, which, in all probability, he used to good effect as a learner-centred approach. Overall, Mr Mtero’s vignette account shows a teacher who valued learner participation through learner-centred teaching and learning. This vignette response, which shows inclination for learner-centred methods was consistent with the rather high score of 72 on the self-checking learner-centred practices gauge (Appendix 14) responses. Such a score,

when qualitatively interpreted, according to the key provided, indicates a learner-centred teacher '*consciously utilising approaches that promote learner-centred learning and enquiry.*'

Mr Mtero's perceptions with regards to the use of learner-centred pedagogy were triangulated against a self-reflective journal of his experiences with the new geography curriculum (see Appendix 12). The teacher felt that:

... the new geography syllabus (4022) is very different from the previous syllabus (2248) as it introduced new content topics like Geographical Information Sciences (GIS) and new assessment approaches as continuous assessment.

In his response to the question of whether he was comfortable with the changes brought by the new geography syllabus, Mr Mtero's answer was a litany of complaints to the effect that:

I have a lot of issues on the new curriculum (...). Training (that is induction) was too short, so I couldn't get much. (There are) no teaching resources. I could have done with more guidance like even demonstrations of learner-centred teaching.

He was 'not sure' how he had enabled learners to cope with the new geography syllabus and he did not suggest any teacher-initiated adjustments to the curriculum and methods to suit learners.

4.17.5 Synthesis of Mr Mtero's cognitive sense-making as an implementer of learner-centred pedagogy

Evidence adduced mainly from self-reported data coupled with the use of learner-probing question-and-answer lessons (Refer to Figures 4.13, 4.14 and 4.15) show some inclination towards learner-centred pedagogy on Mr Mtero's classroom practice. This inclination for learner-centred approaches was best borne out earlier in his preference for lesson scenario in Room 2 since he contended that:

... it promotes effective learner-teacher interaction. It's learner-centred and ensures total learner involvement.

In response to what guidance on learner-centred pedagogy he had got from ZCF 2015-2022 policy-related documents, Mr Mtero said he had had:

... only a fleeting or passing sighting of the *Zimbabwe Curriculum Framework* document in the school head's office.

Additionally, as reported earlier, Mr Mtero indicated having gained little from pre-implementation training inductions or preparation on the competence-based curriculum. In the case of Mr Mtero there is need to explain his apparent use of some learner-centred approaches when he seemed to have had little exposure to or a limited reading of learner-centred recommendations contained in flagship *ZCF 2015-2022* documents. The words of Mr Mtero offer a plausible explanation that:

... [m]ost teachers have a good idea that learner-centred methods result in effective learning than teacher-centred methods. The former methods are more taxing with regards to planning and materials wanted. So most of us teachers tend to use teacher-centred approaches.

In the light of this observation by teacher Mr Mtero, it is possible, at least tentatively, to explain his inclination to use learner-centred pedagogy in the wake of the *ZCF 2015-2022* reforms. The proclivity to value and use learner-centred pedagogy was apparently a part of his inherent pedagogical beliefs which did not seem to derive from the exhortation to implement the *ZCF 2015-2022* learner-centred policy drive. It did not derive from any meaningful induction or understanding and adherence to policy imperatives for “an in-depth knowledge of appropriate teaching methodologies and approaches” (Circular No. 2 of 2017:9, Ministerial Launch Statement *Ground Zero Getting Traction*, Slide 24). The *ZCF 2015-2022* learner-centred thrust coincided with extant teacher beliefs in and practices of learner-centred pedagogy such that the observed use of learner-centred pedagogy is minimally attributable to the reforms but could have occurred in spite of such reforms. In the post-lesson –observation interview I asked Mr Mtero the possible influence of the post-graduate teacher training on his teaching style. He observed:

... [i]n my on-going pedagogics course the message that learner-centred teaching is preferable to teacher-centred teaching has been incessantly hammered to us. I guess this is so for any teacher training programme. Thus in many respects my learner-centred leanings derive from the training course.

This underscores an important role initial teacher training seemed to have had in Mtero's preference for learner-centred pedagogy.

Although it seemed to me that it was inherent in Mr Mtero to teach geography for understanding and have learners participate in knowledge construction, not all instances were utilised for this. The instances, as has already been presented included: (i) omitting to explain or have students explain why *'the day with the largest difference is the driest and smallest difference is the most humid'* in the *Revision of multiple-choice Physical Geography Paper Examination lesson* (lesson excerpt Figure 4.13); and (ii) having adopted an approach in which he or learners explained in some detail an identified a problem in the use of fuel wood in the *Biomass fuels: Wood fuel* lesson (Figure 4.14), he chose not to do so on the problem of global warming. To an observer, these omissions would speak to selective coverage of content that varied with the teacher's grounding in an issue. These two instances could have been used as occasions to probe learners' understanding thereby potentially leading to deeper geographical conversations and understanding. The teacher seemed to mostly rely on questioning strategies that required students to primarily give recall information or simple answers without delving into the geographical reasoning or procedures undergirding the answers. By not utilising such openings for deeper understanding, Mr Mtero didactically structured the lessons in ways which can be viewed as inimical to meaningful learning and learner involvement. These situations of not teaching for understanding or not engaging learners deep enough are similar to the case of one Mrs O studied by Cohen (1990) in the state of California in the United States of America.

According to Cohen (1990), though enthusiastic about a new way of teaching elementary mathematics, Mrs O inappropriately taught in a very mechanical way that negated learning with understanding. Mr Mtero, in a manner analogous to Mrs O, can be said to have failed to teach for understanding as the learning turned out to be mechanical, superficial and rote in the cited instances. Thus, despite his solid use of a learner-centred question and answer method, coupled with the creation of an inclusive classroom learning environment with active learner involvement, Mr Mtero's learner-centred pedagogy armour was not without some cracks or weak areas. In his extensive use of the question and answer method and accompanying teacher exposition he, at times, engaged in selective coverage and explanation. Such teaching precluded the

realisation or enactment of wholesale learner-centred pedagogy in his geography classes.

4.17.6 Conclusion on Mtero's case

The case of Mr Mtero suggests that the inclination to use learner-centred pedagogy is seemingly immanent in practising teachers. This teacher trait could have been meaningfully enhanced by teacher induction in the pedagogical trajectory of the new competence-based curriculum. Exemplar sessions of how to recognise and utilise opportunities to use learner-centred instruction are needful so as to fully tap on existing pro-learner-centred pedagogy dispositions among geography teachers at secondary level. The failure to use learner-centred pedagogy, as indicated by the case of Mr Mtero, is more the result of lack of requisite pedagogical skills to recognise and utilise critical incidents in a lesson. For teachers like Mr Mtero to purposefully provide for meaningful learner participation, their case situations, as reported here, suggest that prior teacher induction and staff development ought to be availed. Awareness in the form of availability of relevant policy documents and other supportive teaching and learning material can help move classroom teaching away from seemingly ubiquitous question-and-answer approaches. These approaches tend to create teacher-to-learner communication flows where teachers initiate and dominate classroom conversations but constrain the scope of learner contribution. Resultantly, learner contributions may not always be used as springboards to develop relevant geographical explanations, understanding and conversations. His failure to fully utilise learner contributions may also be attributable to a teacher lacking a deeper understanding of the *ZCF* learner-centred drive given his view that the new curriculum's learner-centred pedagogy thrust was "business as usual". The next section examines yet another teacher, Ms Jowa's attempts to use learner contributions as springboards to develop relevant geographical explanations.

4.18 Case 4: Ms Jowa – A Hesitant yet Promising Implementer

The following account examines the enactment of the learner-centred pedagogy imperative in the *ZCF* (2015- 2022) in a case study of a lady teacher at a rural day secondary school. Day secondary schools are the most common school types in

Zimbabwe. In describing and explaining Ms Jowa's enactment of the learner-centred instructional requirement, the researcher used data from three lesson observations and a post-lesson-observations interview with Ms Jowa. Both the lesson observations and interview are supplemented by data from the teacher's reflective journal, a teacher stimulus vignette response and a calculated score from a learner-centred teacher behaviours checklist. In concluding this section, a synthesis of how Ms Jowa understood and implemented the learner-centred pedagogy requirement in her geography teaching at middle secondary level is given.

4.18.1 A portrait of Rapera Day Secondary School

Rapera Secondary is a typical day rural secondary school. In Zimbabwe, rural day secondary schools cater for students who commute daily to school from surrounding rural villages and communities. The day secondary schools are a feature of the post-1980 independence period representing the rapid expansion of secondary education among rural communities. Apart from to being the most common secondary school type, these schools have yet to prove their mantle in public examinations which was the main mode of assessment prior to the *ZCF (2015- 2022)* reform (Mapuranga & Nyakudzuka, 2014). Their short history, coupled with their being poorly resourced materially and infrastructure-wise, have served to keep away trained and experienced teachers from joining them (Mapuranga & Nyakudzuka, 2014).

Established in the early 1980s, Rapera Secondary serves mainly a peasant community whose livelihood is semi-commercial mixed farming. Given this community's proximity to Harare, that is, some 40 kilometres away, many residents commute daily into Harare where they are either employed or go to sell their market gardening products such as green vegetables and fruits. The school is a co-educational institution with over 1500 learners for which forms 1 to 4 have a double session, that is, some learners come in the morning while others come in the afternoon. This double session arrangement does not apply to the 5th and 6th form students who attend lessons throughout the school day. Rapera Secondary is headed by an elderly gentleman with a staff complement of 31 members under him. The school head and members of the geography department

afforded me all the cooperation one would want, especially once they saw the provincial office's consent letter.

4.18.2 Biographic sketch of Ms Jowa

Ms Jowa is a 35-year-old lady in her tenth year of teaching. Ms Jowa has a Bachelor of Education (BEd) degree in geography. She was the geography head of department and, at the time of the study, was the only teacher taking form 3 classes. Though initially she had consented to my observing her, it proved difficult to organise these sessions. This was because she had a lot of administrative work, preparation, marking and the new curriculum requirement for continuous assessment tasks to do. Such apparent dilly-dallying was understandable given the timing of the study in the last quarter of the year, 2017, when public examinations and a lot of administrative demands were being made on teachers. She suggested that I should just have designed and used a questionnaire to collect the information I wanted. She felt she would make a poor showing in the classroom teaching-learning episodes given the limited time for preparation. I convinced her that I just intended to research on real and natural classroom situations and not contrived make-ups. When I suggested that I would have to change schools from which to carry my research if she could not spare some time for the research, she consented to my request for class observation. With this kind of rapprochement obtaining, we were able to carry on with the study.

4.18.3 Ms Jowa's observed classroom transactions

The three lessons I observed Ms Jowa teach were on; *The use of photographs* (in tackling questions), *Migration* and *Volcanism: Intrusive features*. Ms Jowa demonstrated effective question-and-answer skills which were well integrated with multimedia use and group work to result in some modicum of learner-centred pedagogy. This is evident from the following excerpt on the lesson on *The use of photographs* (Figure 4.17). In the introduction to the lesson, the teacher ably steered the interactions or classroom dialogue to the intended concepts of what photographs or pictures are, their types and how they function to depict geographical information.

1. **Teacher (Tr):** Right, I'm sure you've seen these questions in your examination papers. Most of you were not answering these questions as required or as they asked. So today we are going to look at these picture-based questions and how they are supposed to be answered. Alright, Umm! What is a picture? How best can you define a picture? Yes, Brendon.
2. **Brendon:** I describe the being shown.
3. **Tr:** Can you come again?
4. **Brendon:** It's by describing what you are seeing.
5. **Tr:** Right. What is a picture? Can you define a picture? **Bredon's answer not developed**
6. **Student (Sdnt):** I think a picture is a recap of what took place, photographs, like sort of images. **Teacher provides partial feedback (TAfb)/ Students given chance to reflect and refine response (LAqr)**
7. **Tr:** Right pictures are images. What else, yes?
8. **Stdnt:** Representations of nature.
9. **Tr:** Right, can you only represent nature using pictures? What else is represented by pictures? Nature. Ok, an image of nature, alright. What else? Yes? **Interactive/contributive dialogue [CSII/Itf/ePR]. Probing.**
10. **Stdnt:** Representation of images on a piece of paper.
11. **Tr:** Right, representation of images on a piece of paper. You are right **(TAfb)**. Alright. Right this is a representation of... who can read what is shown there? Yes, Carlos.
12. **Carlos:** Representation of a person or a scene on a form of a print or transparent slide recorded by a camera or a light sensitive material.
13. **Tr:** Right, so what you have said is correct, that's a representation of a person or a scene, like what has been said by Brendon, **(Learners learn from peers [LAex])** representation of natural features. Right, in the form of a print and so the picture may be in the form of printed or transparent slide, and it's recorded by a camera or a light sensitive material. Right, so we have two main types of photographs, of pictures. We have got aerial photographs and ground based photographs. What is an aerial photograph? Cheryl. What is an aerial photograph, you are just reading. Yes, Shawn. **(Use of text)**
14. **Shawn:** Aerial Photograph, these are pictures taken either from directly above or at an angle from a higher altitude.

Figure 4.17: **Vignette of Ms Jowa's Lesson on Use of Photographs.**

As evident from the extract, the teacher adeptly led a brainstorming session (lines 1-11) by mostly using learners' answers to correct shortcomings while highlighting the correct

concepts. Though the first learner's (Bredon) response is not utilised the teacher mostly utilises learner answers. For example, the teacher asked the question: '*What is a picture?*' (line 5) A student answered that, '*a picture is a representation of nature*' (line 8). The teacher steered the classroom exchange to the correct definition through responses such as: *Can you only represent nature using pictures? What else is presented by pictures?* (TAfb/LAqr/TAht line 9) In this example, student learning came out as a process of grounding subject knowledge in a student's interpretation of personal experiences. In so doing learning became an active process of making meaning from experience or contexts relevant to the learner. The teacher used students' answers to scaffold learning (teacher feedback [TAfb] line 11). The questioning process and the various learner contributions speak to learning as a collaborative process (exchanges in the excerpt; lines 1-14) where multiple perspectives (some incomplete and underdeveloped) were considered thereby leading to integrated and authentic co-construction of learning experience. The teachers' contribution guided and blended smoothly with the learners' contributions. Such guidance, one would argue, in concurrence with Art and Thomas-Armour (2002), represents an important trademark of learner-centred teaching and learning.

In the lesson, the teacher later assigned group work to learners for them to describe and interpret the photographs supplied. The group work enabled learners to sharpen their skills of describing and interpreting photographs. The groups later reported back their findings. This approach of structuring the report back sessions ensured that the class participated in the work of others. In this way, learners became active in their classmates' work. Two elements of learner-centredness stand out from this. First, learners took responsibility in their own learning by participating and engaging productively in the geography classroom community activities. Secondly, such structuring of the learning environment through group work enabled authority to be distributed among learners, and between learners and the teacher. The productive use of a probing question and answer method was also evident in Ms Jowa's other two lessons on *Volcanism: Intrusive features* and *Causes of Migration*. Ms Jowa's lesson on *Volcanism: intrusive features* brought out attributes of her teaching which illuminated

her inclination towards learner-centred pedagogy. Figure 4.18 is an excerpt of the lesson on *Volcanism: intrusive features* that brings the teacher attributes.

1. **Tr:** What is volcanism? Yes Mafema? **Teacher provides feedback (TAfb) and builds on student answers. Teacher probes student answers and fosters of learner autonomy (TAla)**

2. **Stdnt:** It is when magma comes out. **Learners given a role in steering learning process (LAlp)**

3. **Tr:** She says it is when magma comes out, full stop. What a dizzy definition! Anyone else? Yes!

4. **Stdnt:** The movement of hot liquids. ...

5. **Tr:** Oh, a hot liquid, movement of water from underneath the earth's surface. That's volcanism for you. And she's saying coming out of magma from a pot. **Teacher uses mild sarcasm to encourage clearer learner thinking.**

6. **Stdnt:** It is the movement of magma from the mantle to the top of the earth's crust.

7. **Tr:** So he's saying magma should come out specifically from the earth's mantle, and (from) where else? From deep underneath the earth's crust onto the earth's crust. ... That is why Mafema was saying it is associated with the coming out of gases, coming out of fluids, coming out of water. Now, this magma, we call it magma when it is still underneath. Once it comes into or onto the earth's crust we now give it a new name. What name do we give to magma when it finds its place (from) underneath the earth's crust and over on the earth's surface?

8. **Stdnt:** Lava **Authority distributed equally/equal power relations/ community of geography practitioners (ePR), builds on student answers and LAlp**

9. **Tr:** We call it lava. Now today we want to start by looking at what we call intrusive features of volcanism. And we want to define the word intrusive. What do we mean by intrusive? Wake up! Wake up! Wake up!. Geography and English go hand in hand, you just must be able to define your words correctly. Yes? **Integrative learning language learning in context (ZCF 2015-2022)**

10. **Stdnt:** Inaudible ...

11. **Tr:** Anyone else? He says into the earth's crust. Someone is still finding it unclear, what do you mean by into the earth's crust? Yes? **Teacher thrives to have all learners understand. Draws illustrative diagram to on chalkboard- effective and varied use of media - (LSM –LRe).**

12. **Stdnt:** Inside.

13. **Tr:** Inside the earth's crust. That's a better word. So you are saying we have the earth's surface here, and our magma is coming out from the lower parts of the mantle. ...

Figure 4.18: Ms Jowa's Lesson Excerpt on *Volcanism: Intrusive Features*.

The lesson vignette, through the coded and annotated sections, highlights Ms Jowa's learner-centred pedagogy attributes such as the interactive or contributive classroom question-and-answer-based dialogue characterised by meaningful exchanges or active learner participation (CS II/Itf) - lines 1 to 13], using the chalkboard to aid learner understanding (lines 10-13 that is - LSM –LRe) and what Schoenfeld (2013) would describe as probing for misunderstandings to build on incomplete or partial understandings (lines 1 to 5). Generally, the open and participative (lines 5-9) lesson milieu augurs well for an equitable distribution of power (ePR). In a later phase of the lesson on *Volcanism: intrusive features*, Ms Jowa consolidated on student learning through group work in dyads or pairs. An extract of this aspect is contained in the vignette, Figure 4.19, below.

-
- 1) **Tr:** That's very good. Now, let's discuss as we are seated, these features we have identified. How many are they? Six, before we add on, let's discuss those. You must be able to describe the feature, let's discuss in pairs.
We must be through by now. Now, we start off with Mondy's group to give us the definition of this feature here. The definition, what feature is this one? Speak up Mondy.
 - 2) **Sdnt:** Batholith. **Learners to engage in discussions/productivity (LAd) and afforded autonomy (TAla)**
 - 3) **Tr:** Batholith, and your friend at the end. Define a Batholith. ... Define. Tapota's group?
 - 4) **Sdnt:** Batholith is magma that comes from the mantle and it hardens.
 - 5) **Tr:** That's his definition. Yes, Russel? **Learners afforded ownership (TAla)**
 - 6) **Sdnt:** It's a large mass of magma which forms on the earth's crust.
 - 7) **Tr:** That's good, let's clap hands for him. A large mass of magma which accumulates underground. An accumulation of magma underground. The next definition. Where are we now Phina?

Figure 4.19: Excerpt on Dyad Work.

The teacher ably managed the report back session by picking on a pair to report on its findings. This fosters learner autonomy (lines 1-5 TAla). Figure 4.19 generally depicts a teaching learning milieu in which learners engaged in dialectic exchanges or discussions (LAd- lines 1-5). Additionally, there was learner productivity through learner to learner interaction and possible co-construction of meaning given the dyad as the locus of learner-learner transactions (TAla- lines 3-7). Figure 4.20 further illustrates aspects of teacher Ms Jowa's classroom practice.

- 1) **Teacher (Tr):** We move on to another sub topic, *Causes of Migration*. What are the causes of migration? ...
- 2) **Student (Sdnt):** Drought
- 3) **Tr:** Drought. Uhuh! We put that factor in which category? Is it a pull factor or a push factor so let's group them? We want to first start with push factors, push factors that cause migration. What is a push factor? ...
- 4) **Sdnt:** Eh! Push factor I think it is - umm - the social, in fact push factors is are things that force people to move (**laughs**) to move from one place to another.
- 5) **Tr :** Yes *Ngatimuomberere maoko!* (lets clap hands for him) **Class: claps/Tr rewards correct answer.**
- 6) **Tr:** Yes things that force people to move from one place to another. That force, our key term here is force. Things that force people to move from one place to another like Eh? Eton gave an example of a push factor like drought. ... Another push factor, Emelda?
- 7) **Sdnt:** Wars.
- 8) **Tr:** Wars. Civil wars.
- 9) **Sdnt:** Inaudible
- 10) **Tr** Ugh! Huh!
- 11) **Sdnt:** Employment.
- 12) **Tr:** Employment
- 13) **Sdnt:** inaudible.
- 14) **Tr:** Seek for employment yes seek for employment. People they move from Zimbabwe to South Africa in search of employment because of a high rate of unemployed people, Alvord?
- 15) **Sdnt:** Floods
- 16) **Tr:** Floods, natural disasters, Any other?
- 17) **Sdnt:** Poor housing structures
- 18) **Tr:** Poor housing structures
- 19) **Sdnt:** Conflicts.
- 20) **Tr:** Conflicts, wars or conflicts. Give us examples of conflicts, conflicts in West Africa like Boko Haram *Handiti* (Is that so?) People they move from Nigeria to other countries. ...
- 21) **Tr:** ... All that are push factors that led to the movement of people from rural areas or from one country to another. Now let's talk about pull factors. ... What is a pull factor? Nache?
- 22) **Sdnt:** These are things that attract people to move from one place to another.
- 23) **Tr:** Yes, things that attract, attract. Here we said forces, things that force people to move from one country to another or from one area to another. So when we talk of pull factors these are things that attract people to move from the sending area to the receiving area. Examples of pull factors?
- 24) **Sdnt:** Better educational facilities.
- 25) **Tr:** Better educational facilities. ... Sally?
- 26) **Sdnt:** High standard of living.
- 27) **Tr:** High standards of living, they attract people to move from Zimbabwe to United Kingdom. *Tikuenda ku diaspora* (We are going to the diaspora) ...
- 28) **Tr:** High rate of unemployment on the receiving areas. Yes anyone to give us a summary or the conclusion of our lesson. Yes Eddy?
- 29) **Sdnt:** Migration is the movement of people from one place to another. And also we learnt that we have types of migration, we have internal migration which is umm between the people of the same country or same citizens for example rural to urban migration, rural to rural migration, urban to urban migration. Then we also have what we call external migration or inter. Yah external migration or international migration that is the migration between people from another continent to another continent like from Africa to Europe. Then we have causes of migration, under cause of migration we have push factors and pull factors. ...
- 30) **Tr:** *Ngatimuomberere maoko* (Lets clap hands for him). Thank you so much.

NB. Text 29-30 Equal power relations/ community of geography practitioners. A sense that teacher and learner are a team devoted to the well-being of all learners - ePR

Figure 4.20: Causes of Migration.

The vignette Figure 4.20 represents a typical example of a lesson taught through an interactive or contributive dialogue. The teacher progressively or contributively questioned, clarified and validated learners' ideas (CS II/Itf). The teacher relied on questions that augmented the lesson through univocal communication [Auniv/CStlf] or a toll routine question-and-answer approach [TAIrqa]. Ms Jowa sometimes repeated or highlighted learner contributions [revoicing – CStr] as a springboard to further clarification. Overall, learners participated through question-and-answer and they appeared to have understood the lesson's trajectory as testified by the accurate summary of the lesson given by a learner in text 30.

4.18.4 Ms Jowa's understanding of the need to adopt learner-centred pedagogy

The lessons that I observed Ms Jowa teach generally attested to a commendable teacher effort to use learner-centred pedagogy in form 3 and 4 geography classrooms. However, an issue which needed to be addressed was: *[w]hat understanding of the learner-centred pedagogy drive did she hold and did it derive from the Zimbabwe Curriculum Framework 2015-2022 instructional reforms?* The data to investigate how Ms Jowa understood the need to implement learner-centred pedagogy were mainly from a vignette account in response to 2 stimulus lesson episodes as given in Appendix 14, an examination of the teacher's reflective journal entries, qualitative interpretation of her score on a self-scoring learner-centred practices gauge, classroom dialogue analysis of 3 lesson observations and transcripts and the post-lessons-observation interview. In the stimulated vignette account, Ms Jowa showed preference for the scenario in Room 1 where there were learner tasks guided by worksheet questions. For her:

... [t]he scene in Room 1 fosters learner independence and ability to organise a learner's time and work. The facilitative role of the teacher is enhanced in this approach.

With regards to her score on the learner-centred practices gauge, Ms Jowa managed 63 out of 80 whose qualitative equivalent according to the key on meaning of scores in Section 3.9.2 and Figure 3.2, Chapter 3, translates into a teacher who knows *'the value of learner-centred teaching which you utilise where and when appropriate issues and materials are available. Watch out on learner-centred teaching opportunities so as to use them with your learners.'* Generally, this characterisation of teaching aligned with

Ms Jowa's efforts at learner-centred pedagogy brought out in lesson excerpts Figures 4.18, 4.19 and 4.20 which have been analysed hitherto. This is in spite of the fact that the question-and-answer approach could have been used to achieve even more learner-centred learning. Ms Jowa's reflective journal entry focused more on what MoPSE should have done to induct teachers and supply learner support materials (LSM) for teachers to successfully teach the new geography syllabus. In her view:

... [the] Ministry needed to avail materials on new content areas like GIS as a matter of priority especially given that initial inductions on the new curriculum were very general and did not focus on geography teaching as such. The teacher has to be content-equipped first to then use learner-centred pedagogy to teach the content.

Though these reflective journal remarks do not highlight the need to equip teachers with learner-centred pedagogy skills, her concern, as affirmed in the post-lesson-observations interview, was:

... being overloaded with too much content to teach. There is little teacher induction in topics like GIS which have been included in geography syllabus. With regards to learner-centred pedagogy, generally I believe that any good teaching has to involve learners and should not be 'a jug and mug' approach.

In this regard, it seems that learner-centred pedagogy was not a priority to Ms Jowa when compared to the need for adequate subject content.

Additionally, though flagship curricular policy documents such as *Circular No. 2 of 2017* and the new curriculum Ministerial Launch Statement, *Ground Zero: Getting Traction*, require that "[e]ach teacher shall gain ownership of the curriculum, develop an in-depth knowledge of content and the appropriate teaching methodologies and approaches" (Circular No. 2, 2017:9; The ZCF Ministerial Launch Statement *Ground Zero Getting Traction*, 2017; Slide 24), Ms Jowa admitted that her familiarity, knowledge and reading of these official policy documents were negligible. She noted that:

I have no ready access to the ZCF related literature to guide me on how to conduct learner-centred lessons.

Nevertheless she acknowledged that:

... the teacher has to have a deeper understanding of the content and hence be able to apply it so that learners are active.

Thus dearth of supportive *ZCF* literature, as already reported by other teacher participants, meant limited school level guidance on learner-centred pedagogy implementation. The adoption of learner-centred pedagogy, where this occurred as in Ms Jowa's case, was more the result of continued deployment by the teacher of extant pedagogical skills than any guidance from *ZCF* literature or school level variables.

The learner-centred activities noted in her lessons, such as the moderately successful question-and-answer sessions, group work and use of varied media to engage learner misconceptions, probing for misunderstandings as recommended by Schoenfeld (2013), among other attributes were, more likely the result of the teacher's existing repertoire of pedagogical skills gained from her initial training and teaching experience. Additionally, these aspects of learner participation were prominent in the entries that I made in the classroom observation guide (Appendix 15). The entries show that there was use of a variety of methods and media which actively engaged learners. The following observation entries items: 9 (learner questions), 11 (use of varied methods) 16 (small group work) 18 (teacher role as facilitator) 23 (learners responsible for own learning) and 31 (media based interactive learner exchanges) related to Appendix 15, were present in Ms Jowa's lessons thereby showing an inclination for learner-centred teacher practices.

4.18.5 Synthesis of Ms Jowa's cognitive sense-making as an implementer of learner-centred pedagogy

The data presented in the foregoing sections on Ms Jowa suggest that her classroom practices enacted the learner-centred pedagogy innovation with a moderate degree of success. The question which needs to be addressed is: *What explains this relative success?* The relative success with which Ms Jowa demonstrated learner-centred pedagogy seems to derive more from her pre-existing skills and dispositions than an adequate understanding of *ZCF* policy invocations to adopt learner-centred pedagogy. In Ms Jowa, the *ZCF* learner-centred drive coincided with some pre-existing and predisposing bedding ground for possible successful enactment. The rural day secondary school in which the teacher was practising was not one of the best in terms of material conditions to ensure ready uptake of new innovations. The availability of

literature or official documentation and teacher in-service training on the *ZCF 2015-2022* drive for learner-centred pedagogy was low just as in other schools. The teacher was seized with other issues needed by the *ZCF* drive. For example, she had continuous assessment tasks to complete and lacked the needed LSM to worry about the stipulated nitty-gritty of implementation of learner-centred approaches. That Ms Jowa demonstrated a good use of learner-centred pedagogy seems to have been more a result of pre-existing learner-centred pedagogical skills and dispositions than the *ZCF 2015-2022* learner-centred pedagogy requirement *per se*, an issue not foremost in her day to day planning and execution of geography lessons.

4.18.6 Conclusion on Ms Jowa's case

Ms Jowa demonstrated some learner-centred pedagogy skills in the lessons observed. She ably employed the question-and-answer approach to achieve learner-centred class community-based knowledge construction. In addition, she used teaching techniques such as group work to achieve a modicum of learner-centred teaching and learning in her geography classes. Literature is awash with advice that the way a teacher executes his or her lesson is key to how she/he makes sense of the teaching process (Schoenfeld, 2013; Blanton *et al.*, 2001). In this regard, it can be argued that, since Ms Jowa's lessons included aspects of learner-centred pedagogy and that she also held pro-learner-centred teaching-learning views, her cognitive sense-making was congruent with learner-centred pedagogy practices which the *ZCF 2015-2022* advocated. Consequently, she could implement the *ZCF 2015-2022* requirement to use learner-centred pedagogy with some degree of success.

4.19 Summary of the Chapter

This chapter has presented data on the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* policy stipulations on learner-centred pedagogy and on how each of the four teacher research participants or collaborators enacted a learner-centred pedagogy in their form 3 and 4 classrooms. The 12 flagship policy documents scrutinised showed that, generally, the learner-centred pedagogy drive is clearly enunciated for possible use by schools and teachers. However, these documents were not timeously and sometimes

easily accessible to what Bishop (1986) aptly terms the curriculum 'storm troopers' who are the classroom teachers.

Mrs Gumbo's enactment of the *ZCF* learner-centred drive had aspects of learner-centredness given her pro-learner disposition derived from participation in an on-going staff development degree course, her membership to some incipient PLC, her commitment to work and a supportive school environment under which she worked. Shortcomings such as use of the question and answer method and the mannerism of 'revoicing' or excessive repeating of learners' responses detracted her enactment of learner-centred pedagogy. On her part, Mrs Musi's enthusiastic support for learner-centred teaching did not live up to her observed lessons. She had challenges in using the question and answer method and adopting other teaching-learning approaches. In addition, her pedagogical content knowledge (PCK) left much to be desired for her to effectively enact the required learner-centred pedagogy. Mr Mtero, who subscribed to a 'business as usual attitude' in the wake of the learner-centred drive, depended mostly on his pre-existing pedagogic skills to teach the *ZCF 2025-2022* reforms. Thus, though showing some appropriate learner-centred teaching, he was hardly informed by the constructivist basis of the current instructional reforms. Further, the execution of his preferred question-and-answer teaching style did not always result in learner-centred teaching and learning due shortcomings in the use of the technique and possible weak content grounding. Ms Jowa's observed lessons evinced a teacher who could use the question-and-answer style to attain a measure of learner-centred learning. This, however, seemed to derive more from pre-existing pedagogic skills than those called for by the *ZCF* drive.

CHAPTER 5

CROSS-CASE ANALYSIS: UNIFORMITY AT LARGE BUT DIVERSITY IN DETAIL

5.1 Introduction

This study examined four geography teachers' understanding and enactment of learner-centred pedagogical approaches as proposed by the *Zimbabwe Curriculum Framework (ZCF) 2015-2022*. Such a cross-case analysis provides a comparative presentation of the four teacher cases which was not possible in chapter 4 which dealt with each case separately. Firstly, the chapter gives brief comparative biographic details of the teacher participants describing their professional and personal contexts germane to this study. Subsequently, the chapter provides a cross-case analysis of the commonalities as well as the differences in the study findings apropos the scope, distribution and reach of *ZCF 2015-2022* learner-centred pedagogy policy documents. The chapter further highlights the teachers' understandings of the learner-centred instructional requirement and chronicles how they enacted or did not such a requirement in their form 3 and 4 geography classrooms. Specifically, the commonalities and differences are cast in the context of the four sub-questions framing the study. These questions relate, firstly, to the nature of the *ZCF 2015-2022* policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels. The second sub-question focuses on how teachers understood the learner-centred policy. The third relates to how teachers enacted the learner-centred pedagogy curriculum and instructional policy in their form 3 and 4 geography classrooms.

The cross-case analysis on each of the first three framing questions is accompanied and concluded by an explanation of the corresponding analysis of research findings. This focus on explaining research findings addresses the fourth sub-question which relates to *how the research findings can be explained*. This concurrent presentation of findings on each of the first three sub-questions with those of the fourth sub-question is possible since sub-question (iv) is a cross-cutting or transversal framing question necessitating that such explanation occurs simultaneously with the findings. This integrated infusion of sub-question (iv) with each sub-question helps to clarify specific

issues and thus outweighs explanations in a once off unitary treatment of sub-question (iv). This is so because the fourth sub-question is an attempt to buttress or situate the cross-case findings in extant literature in order to make connections between what the literature says (i.e., the theory) and empirical data within each of the first three sub-questions. This rendering of the analysis makes it possible to underscore and illustrate the findings with respect to either confirming or disputing propositions from literature.

Findings on each of these framing sub-questions show existence of both broad commonalities across cases which are also juxtaposed with beliefs, experiences and practices peculiar to individual teacher cases. This approximates a situation of 'uniformity at large but diversity in detail', a phrase constituting the sub-title of this chapter.

5.2 Teacher Biographic Attributes

To provide a foundation for the cross-case comparison, Table 5.1 gives biographic attributes of the four teachers who were the key participants and informants in this multiple case study. The table summarises teacher profiles showing school name and type, gender, age, qualification including ongoing staff development, teaching experience and taught class variables. Table 5.1 provides a comparative framework which is the basis for appreciating the selected geography teachers' understanding and enactment of their practices in the wake of the *ZCF 2015-2022* learner-centred pedagogy policy drive. Initially, I gathered data from six teachers in different schools that represented the main categories of schools in Zimbabwe. However, in the end only four teacher participants are reported in this thesis as this was more manageable and still provided rich data enabling deep understanding of cases of classroom practices. Focusing on the four cases also reduced needless repetition of similar case findings. The four cases and their school settings provide an acceptable convenient sample of information rich sources.

Table 5.1: Participant Teachers' Attributes.

School details	Teacher	Gender	Age (years)	Experience (years)	Professional Qualifications & ongoing staff development	Taught class variables		
						Form name	Size per class	Lessons per week
Reeters Secondary urban high density or low income school. Enrolment – 350 learners with 2 classes at each level from form 1 to 4. Female head with 20 teachers.	Mrs Gumbo, active <i>Harare Province Geography Association</i> (HAPROGA) member.	Female	34	10	Dip.Ed. (Secondary Geography and Environmental Science). Ongoing B. Ed. (Geography)	3A 3B 4A	45	32
Naviana High, urban low density or high income school. Enrolment- 1000 learners. Male head with 35 teachers.	Mrs Musi, Not a member of HAPROGA HOD of geography	Female	40	18	Dip. Ed. (secondary Geography) B.Ed. (religious studies) On going M. Ed (Curriculum)	3B 3C	28 26	30
Chinhamo Mission rural boarding school Enrolment - 761 learners. Male head with 25 teachers	Mr Mtero Non-active member of HAPROGA	Male	31	5	Dip Ed. (secondary – geography) Ongoing B.Ed. (History)	3D	20	28
Rapera, rural day Secondary School Enrolment – 1500 learners. Male head with 40 teachers	Ms Jowa Not a member of HAPROGA HOD geography	Female	36	10	Dip Ed. (secondary – geography) B.Ed. (Geography)	3E	49	26

As evident from Table 5.1, the purposive sample of teacher cases shows a predominance of female teachers as only one of four participants was male. This reflects the demographic composition of the teaching staff that I generally encountered in the studied schools, all of which were co-educational institutions. The given teacher attributes provide possible bases for understanding teachers' responses to the learner-centred instructional requirement. The relative opportunities, challenges, sense-making and enactment of the learner-centred pedagogy by the four teacher participant are superimposed on, if not shaped by the teachers' personal attributes of: (i) teacher qualification, experience, views on teaching and learner-centred pedagogy; (ii) continuing self-professional development; and (iii) membership to some professional learning community (PLC). These biographic attributes formed the background on which case and cross-case findings were understood and interpreted.

5.3 ZCF 2015-2022 Policy Stipulations: Declaration without Effective Implementation

The first sub-question of the study is: *What are the ZCF 2015-2022 policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?* There was a common explicit learner-centred pedagogy policy message in the 12 policy documents reviewed in this study. The comparative reach or distribution and utilisation of policy documents in the sample schools, as reported by school heads and the four participant teachers, show a matter of broadly common experiences with some differences for individual cases. Flagship documents communicating the learner-centred pedagogy were available in the schools. The policy requirements on the need to adopt a learner-centred pedagogy were clearly specified in flagship policy documents like the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* blueprint, the Ministry of Primary and Secondary Education (MoPSE) launch statement of early 2017 and the MoPSE permanent secretary's Circular No. 2 of 2017. These documents were available in schools either as hardcopies or electronic copies. In addition, all four teachers used and taught the new Geography Syllabus 4022 at either form 3 or 4 as required by the *ZCF 2015- 2022* blueprint. In other words, the teachers did have access to this important curriculum document. Apart from these four documents, there were eight other documents which carried the new curriculum stipulations in one way or another. Thus,

in the light of the many documents that collectively contained the policy stipulations on learner-centred pedagogy, school level policy custodians and teachers were generally aware of the need to adopt a learner-centred pedagogy.

All four participant or collaborating teachers underwent school-level induction on the competence-based curriculum. The teachers generally anticipated that the induction would familiarise them with the new curriculum to easily implement it. However, most teacher participants, namely Mrs Musi (Section 4.6), Mr Mtero (Section 4.6) and Miss Jowa (Sections 4.6 and 4.18.4), bemoaned the unsatisfactory induction encounters that fell short of equipping them with both adequate knowledge on learner-centred policy requirements and pedagogical skills for teaching new topics like GIS. An exception to the complaints of inadequate induction was Mrs Gumbo. Her enrolment in a university staff development programme and membership to a quasi-professional learning community (PLC) seemed to have offered her, by default, adequate induction on the new curriculum (Sections 4.15.2 and 4.15.6). Other reasons given for inadequate knowledge and skills on learner-centred pedagogy related to lack of time to acquaint oneself on these policies (Mrs Gumbo and Miss Jowa), inadequate background reading materials (Mr Mtero) and lack of supplementary guides (Mrs Gumbo and Mr Mtero). With respect to the latter, it is noteworthy that the Curriculum Development Unit (CDU) provided, *albeit* belatedly in 2017 and early 2018 a Teachers' Guide on content and teaching of the new Geography syllabuses from form 1 to 6. This was meant to guide and support the proper implementation of the new competence-based curriculum.

The heads of the sample schools were generally supportive of teachers in the implementation of the new curriculum. Such support included organising school level induction and availing flagship electronic or hard copy documents to needy teachers. In schools like Reeters Secondary School where Mrs Gumbo taught, the school availed ICT-related equipment such an LCD projector for use by teachers. Mrs Gumbo ably utilised this multi-media facility thereby promoting pro-learner-centred activities and learning. No comparable support was witnessed at the other three school research sites.

The study found a common divergence or shortfall from official policy in the schools with regards to time allocated for geography lessons. Although it was officially stipulated that geography be allocated five lessons or teaching-learning periods of 35 to 40 minutes each per week, none of the four schools were able to satisfy this requirement. Instead the traditional four periods were allocated to geography. The common excuse was that the *ZCF 2015-2022* reform had ushered in an overloaded curriculum in which timetable constraints did not allow the allocation of the recommended slots for most subjects, including geography.

5.3.1 Explaining the puzzle of clear policy stipulation but weak enactment

A conclusion to be drawn from the foregoing findings on learner-centred pedagogy policy stipulations is that the message of this policy requirement was clearly spelt out in the many documents provided. Notwithstanding this, a potential policy-practice gap was indicated through the delayed availability of supplementary teaching-learning material, inadequate teacher induction, school level factors like variable teaching-learning media support for learner-centred pedagogy and the common inadequate allocation of teaching-learning time to geography due to curriculum-overload. Resultantly, a situation akin to what Masoke-Kadenge and Kadenge (2013) described as ‘declaration without implementation’ manifested itself. In this regards, the learner-centred policy stipulations were explicitly encased in many documents but may not have been fully internalised by the local actors such as geography teachers and school heads, due to non-uniform availability of the requisite inputs and processes. To explain this state of affairs, there is a need to examine what extant literature proffers.

The requirement to have teachers implement curriculum reform as officially stipulated is not new in Zimbabwe. It is part of the top-down approach characteristic of Zimbabwe’s centralised education system (Zvobgo, 1999; Kanyongo, 2005; Mavhunga, 2014). Such an approach contrasts with Stenhouse’s classical conception of curriculum as an “attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice” (Stenhouse, 1975:4). The underlining idea behind Stenhouse’s conception of curriculum is that, teachers, as local actors in policy enactment, bring a

curriculum idea to life in their classrooms as they adopt and adapt the curriculum to the dictates of local and existential realities at school and classroom level. This view resonates with the sense-making perspective that posits that successful curriculum implementation is assured when local actors, in this case teachers, share the same understanding, values and beliefs as those encased in official policy (Tabulawa, 1998; Spillane et al., 2002). As earlier shown in the review of related literature in Section 2.4, ideally, what works is that “curriculum change processes and discourses must be made transparent so that teachers can have a framework for ‘dereification’ of a curriculum document into their classroom practices” (Fernandez, et al., 2008:188). Literature contends that successful curriculum innovation uptake is contingent upon predisposing characteristics of teachers which, if absent, may necessitate staff development or induction (Bennis *et al.*, 1969; Bishop, 1986; Sarason, 1990; Fullan, 2000). Such pre-implementation induction or staff development must be an integral part of the policy implementation process. Staff development provides knowledge of the why, what, and how of the policy and can diminish teacher and staff anxieties and concerns. The process provides them with the tools and skills to perform the task (Warren, 2002:41-42). This facilitates the correct local actor perception or understanding and thereby predisposing sense-making.

The school-level induction workshops in this study were reportedly narrow-focused encounters conducted by ill-qualified facilitators (refer to Section 4.6). This speaks to an absence of the said framework for ‘dereification’ of the new curriculum and its policy documents. It also explains the finding that most teachers found the initial school-level inductions ineffective to guide enactment of learner-centred pedagogy in form 3 and 4 geography classrooms. The observation by Warren (2002:41) seems to aptly apply to the *ZCF 2015-2022* implementation situation, especially with respect to local actors’ or teachers’ induction, commitment and ultimately understanding of their role thus:

[t]eachers are the main implementers of educational policy. Teachers generally will resist change when they: (a) do not understand the implications of a policy, (b) have not received sufficient information regarding its purpose, and (c) do not know how it is to be implemented. Those who are to implement a policy must know its intent and how it is to be accomplished. Teachers and staff must receive detailed information. The

principal has a major responsibility for collecting, organising, and disseminating sufficient information about a policy, particularly its origin and the problem(s) it is intended to alleviate.

Furthermore, a major preoccupation evident from an examination of curriculum change implementation models like the classical normative re-educative strategy for change (Bennis et al., 1969, 1985) and more recent perspectives, such as Spillane *et al.*'s (2002) cognitive sense-making framework, is that curriculum or instructional changes stand a chance at successful enactment if they are consistent with teachers' prevailing pedagogical views, practices and expectations. Such concordance between expected change and teachers' sense-making is often overlooked in a rush to roll out changes into schools without instituting adequate measures to equip teachers with knowledge and skills on how to implement the changes at classroom level (Fullan, 2000b; Ganon-Shilon & Schechter, 2017). These submissions from literature assist in understanding the study finding of ineffective induction encounters reported by the participants even though a scrutiny of policy documents attests to a clearly articulated learner-centred instructional reform trajectory. Put differently, well-articulated policies have to go hand in hand with local actor's understanding of the policies, which understanding was not enhanced due to an ineffective pre-implementation induction and sensitisation process.

5.4 Teacher Understanding of and Support for Learner-Centred Pedagogy

The second sub-question guiding this study focused on *how geography teachers understood and made sense of the ZCF 2015-2022 instructional requirement to use learner-centred approaches in teaching and learning of geography at form 3 and 4 levels*. Data from an analysis of lesson transcripts, lesson observation schedule (Appendix 15) and post-lesson-observation interviews (Appendix 16) were triangulated with responses to self-checking instruments like self-reflective journaling (Appendix 12), the teaching scenario vignette (Appendix 13) and the learner-centred instructional gauge (Appendix 14). This was meant to build a picture of teachers' sense-making, understanding, support and adoption of learner-centred pedagogy. How participants understood their work as geography teachers had to do with their conceptions of both the teacher's role and that of learners in knowledge generation and acquisition. Such knowledge generation and acquisition could, as advised by literature, be fostered

through opportunities provided for learners to interact either among or between themselves and the teacher or among themselves and materials or artefacts in the lesson (Tavakoli & Azad, 2016).

5.4.1 Shared and different views on learner-centred pedagogy

All four teachers had high regard for the learner-centred approach although individual perceptions were more nuanced. The data from the self-checking learner-centred instructional practices gauge illuminates this finding. Using the formula given and explained in Appendix 14 and Figure 3.2, the computed scores out of a possible total of 80 were for Mrs Gumbo (51), Mrs Musi (52), Ms Jowa (63) and Mr Mtero (72). On the basis of the qualitative key to the scores, as given in Figure 3.2 and Appendix 14, Mrs Gumbo, Mrs Musi and Ms. Jowa would, in terms of inclination toward learner-centred pedagogy, be described as:

You know the value of learner-centred teaching which you utilise where and when appropriate issues and materials are available. Watch out on learner-centred teaching opportunities so as to use them with your learners.

In contrast, Mr Mtero, with a score of 72, was a cut above his three colleagues in being characterised as:

You are a learner-centred teacher who consciously uses ways to promote learner-centred learning and enquiry. You are aware of the need to maintain a learner-centred teaching learning environment in your classroom.

These data solicited through a self-checking learner-centred instructional practices gauge were confirmed by teacher submissions in simulated vignette responses to given teaching-learning scenarios and post-observation interviews as earlier reported in Section 5.2 on how teachers understood and made sense of the ZCF (2015-2022) policy requirement to use learner-centred pedagogy in their geography form 3 and 4 classrooms.

In the context of the foregoing, the teachers did not only verbally express the belief that learner-centred pedagogy was effective in delivering intended learning, they also claimed this to be so in their-own-practices-based calculated scores to the learner-

centred instructional gauge. It is however important to realise that such common support for learner-centred pedagogy masks considerable variation in teachers' full understanding of the same as will be shown later. Heading this learner-centred protagonist pack was Mrs Musi, an 18 year old veteran in the teaching profession. She pinned her colours on the mast of learner-centred pedagogy with the explicit assertion that "[i]t's good to use the learner-centred teaching ... the teacher becomes a co-learner with his or her pupils". Her interview responses abounded with learner-centred pedagogy terminology which exuded an enthusiasm for this teaching approach.

In a manner similar to Mrs Musi, the other three teachers were also in favour of learner-centred pedagogy. Mrs Gumbo, aged 34 years with 10 years teaching experience, held a view of teaching best summarised by her comments in the post-lesson-observation interview. The comments described the teacher as 'a facilitator' whose work entailed "putting together lots of materials [that] learners will use in lessons ... to come up with new ideas and not wait to be spoon-fed by the teacher". In addition, Mrs Gumbo thought that "[t]he teacher has to ensure that students understand what you intend to have them learn by making the subject accessible or simple for them and also using multimedia and group work so that they can interact and exchange ideas to come up with an acceptable explanation." Her view of teaching stresses not only delivery of knowledge by the teacher but also creation of conditions conducive to generate such knowledge for learners.

Mr Mtero, aged 31 years, though the youngest participant with the shortest teaching experience of five years, also held sentiments similar to other experienced participants. He preferred a teaching-learning style that "... promotes effective learner-teacher interaction [and is] learner-centred and ensures total learner involvement." With respect to such learner involvement, his forte was in the use of the question and answer method to foster learner self-examination. This was borne out by his one-time apparent justification to learners in a lesson as to why he frequently used questions. He disclosed that "... I always want to know [by posing questions] if you know what you are talking about" (Lesson vignette Figure 4.14). In his understanding, this pro-learner-centred teaching inclination was attributable to his initial teacher training course from which he

got the belief that "... learner-centred methods result in effective learning more than teacher-centred methods."

There is a need to juxtapose Ms Jowa's views on teaching against those of her other three colleagues. Ms Jowa, aged 36 with 10 years teaching experience, was of the view that "... any good teaching has to involve learners and should not be '*a jug and mug*' approach." In this regard, her views, especially those emphasising aspects of learner involvement in the learning process were in tandem with those of the other three teachers reported on earlier. However, added to the views of other three teachers on teaching, Ms Jowa felt that "[t]he teacher has to have a deeper understanding of the content and hence be able to apply it so that learners are active." She also advocated for teachers to be knowledgeable of their subject content as evidenced by her observation that, "[t]he teacher has to be content-equipped first to then use learner-centred pedagogy to teach the content."

Five issues are discernible from the foregoing comparative account on participant teachers' understanding and sense-making of the ZCF learner-centred pedagogy drive. The themes relate to the common support for learner-centred pedagogy held by all four teachers and each of the four teachers' understanding of teaching and learning in the wake of the learner-centred pedagogy reform. In the following section, I seek to provide explanations for these emerging themes or issues as suggested in extant literature.

5.4.2 Explaining Teachers' understanding and sense-making of the learner-centred pedagogy

A scrutiny of extant literature suggests explanations with respect to research findings of the common support for learner-centred pedagogy and each teacher's views on learner-centred pedagogy. The teachers' views relate to Mrs Gumbo's ambivalent yet evolving understanding of learner-centred pedagogy, Mrs Musi's vocal support for the learner-centred pedagogy, Mr Mtero's high regard for initial teacher training with respect to learner-centredness and Ms Jowa's view of teacher subject matter knowledge (SMK) and pedagogical content knowledge (PCK) as central to learner-centred teaching.

5.4.2.1 Teachers' shared support for learner-centred pedagogy

Almost all teachers complained of inadequate induction, minimal or delayed exposure to *ZCF 2015-2022* flagship policy documents and other relevant published materials, and a general lack of time to study such literature to fully understand them. Thus, it is apparent that teachers' general and reported support for learner-centred pedagogy, evident from earlier submissions in Section 5.3, was derived from other sources other than a full understanding of the *ZCF* learner-centred pedagogy (LCP) invocation about which, to all intents and purposes, they were not well versed.

In light of participant teachers' inadequate grounding on the learner-centred pedagogy, as enunciated in the *ZCF* policy documents, the question is how to explain teachers' apparent and common advocacy for learner-centred pedagogy. A reading of extant literature suggests that the four teachers' commonly professed support for learner-centred pedagogy may be explained by the initial teacher training they were exposed to. This was a view also evident in Ms Jowa and Mr Mtero's perception that initial teacher education had a bearing on their pro-learner-centred pedagogy views.

A UNESCO (2011) study on learner-centred pedagogy in African countries is one example of extant literature that explains the link between teaching styles and initial teacher training (Vavrus *et al.*, 2011). According to the study, most teacher education courses in African countries expose teacher trainees to the work by leading educational psychologists and theorists like Dewey, Piaget, and Vygotsky and other contemporary scholarship that emphasise the primacy of learner-centred pedagogy as a more effective teaching and learning approach. According to the UNESCO (2011) report, the 1990s and 2000s witnessed a flourishing of educational reforms with strong elements of learner-centred pedagogy in African and global educational systems. In the same vein, Mohammed (2014) notes the ascendancy of cognitive and constructivist theories in African teacher education courses. Such theories emphasise learners' construction of knowledge based on their own experiences and their interaction with their classmates. This, Mohammed (2014) contends, is in contrast to traditional behaviourist theories that emphasise the transmission of information from the teacher to the learner. Zimbabwe has not been spared this learner-centred pedagogy drive in its initial teacher education

courses even though this has tended to be piecemeal and subject-specific in focus (Chiromo, 2007). The Zimbabwean teacher education colleges' curriculum of the 1990s and 2000s also mainstreamed new subject content like HIV/AIDS Education, Environmental Education and Population Education all of which emphasised the adoption of learner-centred, participatory and innovative pedagogical methodologies (Tsvere, 2000; Chiromo, 2007; Mavhunga, Mavundutse & Mamvuto, 2008; Van Ongevalle, Van Petegem, & Chimbodza, 2011).

The four teacher participants in the study had a good exposure to courses in both educational foundations, that is, philosophy, sociology and psychology of education, and professional studies or pedagogical skills courses during their initial teacher training programmes. In general, these courses underscore the need to use progressive learner-centred teaching approaches. Additional to such learner-centred focus in teacher education courses, school level syllabuses have had aspects of learner-centred pedagogy incorporated in them. For example, learner-centred pedagogy aspects featured strongly in past geography syllabuses such as Syllabus 2248 which preceded the ZCF-related Geography Syllabus 4022 (MoPSE, 2017, 2012). Syllabus 2248, for example, emphasised aspects such as fieldwork, active learning and problem-solving attributes which are also critical in the ZCF learner-centred related Syllabus 4022.

The global, African and Zimbabwean drive for learner-centred pedagogy in the teacher education and in school level geography since the 1990s coincided with the period of initial teacher training for participant teachers in the study. In this context, there is a sense in which the pro-learner-centred pedagogy views held by the four teacher participants reflect what they knew and had learnt to be the ideal way of teaching. Consequently, the voiced or claimed support for learner-centred pedagogy by teacher participants derived from their initial teacher education and this, therefore, explains the support for it as encased in their responses. Such pre-existing support did not necessarily derive from a full understanding of the ZCF 2015-2022 learner-centred pedagogy policy invocation on which teachers reportedly faced challenges of inadequate induction, minimal exposure to ZCF literature and other materials to fully understand the spellings of the ZCF learner-centred drive. It was support from pre-

existing understanding of what was entailed in an ideal pedagogy, that is, initial teacher education derived learner-centred teaching.

Although participant teachers showed a common support for learner-centred pedagogy they also had distinct individual perceptions of it. These individual variations, which can be regarded more as differences of emphasis than of kind, are attributable to what Marz, Kelchtermans, Vanhoof and Onghena (2013:15) consider to be a “... teacher’s personal system of knowledge and beliefs that act as a cognitive and affective lens through which they look at their job, give meaning to it and act in it.” It is to these individual emphases in understanding of learner-centred pedagogy (LCP) that the subsequent sections focus on.

5.4.2.2 Mrs Gumbo’s ambivalent yet evolving understanding of learner-centred pedagogy

In common with other teacher participants, Mrs Gumbo claimed to be in favour of learner-centred pedagogy although at first she was of an ambivalent disposition. Initially, her view was that learner-centred pedagogy enabled learners to be self-independent while reducing the teacher’s load. In a latter claim, she subsequently revised her view by claiming that the approach “demands lots of work for both the teacher and learner”. Hers was an evolving sense-making process or conceptualisation of what learner-centred pedagogy was all about. For example, in the post-lesson-observation interview, she evinced a more nuanced understanding of the learner-centred pedagogy by saying that “the teacher has to prepare by putting together lots of materials learners will use in lessons. Also the approach requires learners that use materials to come up with new ideas and not wait to be spoon fed by the teacher.”

Mrs Gumbo’s evolving and, somewhat, correct understanding of learner-centred pedagogy in the course of the study is a situation in line with the process of reflective practice (Dervent, 2015). Reflective practice was pioneered by distinguished learner-centred pedagogy protagonists like John Dewey, as epitomised in his book *How We Think* (1933), Reynolds (1965), and Schon (1983). In the view of many protagonists, reflective practice is the process where one engages in on-going self-appraisal from as early as a raw beginner to a practitioner who understands and builds a conscious

awareness of their work or profession (Schon, 1983; Berliner, 2001; Moon, 2005; Dervent, 2015). The body of literature on reflective practice helps explain and contextualise Mrs Gumbo's changing understanding of teaching and learner-centred pedagogy. She did not need to have been aware of the concept of reflective practice for, as Dervent (2015) observes, reflective practice can be viewed as a common sense practice in which we are in the habit of thinking about our experiences and considering how we can understand and undertake similar activities in future. Mrs Gumbo's adoption of a reflective practice stance helps to explain her ambivalent yet evolving understanding of learner-centred pedagogy.

In displaying an improved understanding of learner-centred pedagogy with the passage of time, Mrs Gumbo's case demonstrates the need to continue refining and deepening local actors' understanding of the meaning of change. Fullan (1991) terms such local actor's understanding, 'the phenomenology of change' to underscore how teachers understand and experience change as participants in that change. In this vein, Fullan argues that the way teachers implement policy changes hinges, to a large extent, on how clearly they understand what those changes entail. In Fullan's scheme of things, Mrs Gumbo would be a candidate of initial staff development to enhance a clearer understanding of learner-centred reform as part of the competence-based new curriculum.

5.4.2.3 Mrs Musi's vocal support for learner-centred pedagogy

As reported earlier, Mrs Musi was a very vocal supporter of learner-centred pedagogy. In this regard, she might just have been what change literature characterise as an 'early adopter' or enthusiast following Rogers' 1962 seminal work on *Diffusion of Innovation* (Sahin, 2006). Extant literature also suggests a close correlation between support for learner-centred approaches and a long teaching career. Mrs Musi's enthusiastic support for learner-centred approaches corroborates research findings indicating that the more experience teachers had, the more they believed in constructivist approaches involving greater student engagement, autonomy-supportive structuring practices and less direct transmission (Berger *et al.*, 2018; TALIS-OECD, 2009, 2014). Mrs Musi was the oldest

teacher participant with 18 years teaching experience and hence her support for learner-centred pedagogy may partly have been due to her long service.

5.4.2.4 Mr Mtero's 'it is business as usual'

Mr Mtero's views on the ZCF learner-centred pedagogy drive is best summarised by his "it is business as usual" comment. This was because Mr Mtero saw some continuity with respect to teaching approaches between the former Geography Syllabus 2248 and the new Geography Syllabus 4022. In his words, "(t)he use of learner-centred approaches advocated for in the syllabus has been an important feature of geography teaching for a long time." Indeed, this traditional emphasis on learner-centred approaches finds support from many writers on geography education (Graves et al., 1983; Kent et al., 1996; Lambert & Balderstone 2010). Mr Mtero's recognition of continuity in instructional prescriptions between the old and new geography curriculum is commendable. However, as argued earlier in Section 4.7.3, it runs the danger of a superficial adoption of the new ZCF's concerted learner-centred thrust. This thrust expects that each teacher gains "...ownership of the curriculum, develop an in-depth knowledge of content and the appropriate teaching methodologies and approaches" (Ministerial Launch Statement *Ground Zero Getting Traction*, Slide 24 and Circular No. 2 of 2017:9).

Literature further attributes Mr Mtero's 'business as usual' attitude to learner-centred pedagogy from three perspectives. Firstly, Spillane, Reiser and Reimer (2002) have shown that different actors may have different interpretations of policy goals. In this context, Mr Mtero's interpretation of policy was different from that of policy makers. He may not have understood or appreciated the need for a nuanced understanding of learner-centred pedagogy as enunciated in Circular No. 2 of 2017 quoted above. This, according to **Mclaughlin (1987)**, creates conditions of non-compliance with the policy's spirit. There is further agreement in literature that teachers may look at a new policy through the lens of their past experiences, practices and existing understandings (Cohen, 1990; Coburn, 2006). By using the lens of past experiences and practices they come to see innovations as familiar, a case that parallels Mr Mtero in the present study. In this context, Mr Mtero's perspective may thus represent a case of limited sense-making of the new competence-based curriculum. Lipsky (2010) proffers another

explanation that, in a top-down approach, the views of local actor at the site of implementation may hold sway, especially when compounded by inadequate induction. Such inadequate school level induction manifested itself in the implementation of the *ZCF 2015-2022* competence-based instructional reforms. Lipsky (ibid) further explains that the real question in policy implementation is how to support civil servants or local actors, such as Mr Mtero in the context of the study, so that they do not resort to established routines to meet the requirements of the reform yet, in reality, reduce the quality of their service to end users (or learners) of the policy.

5.4.2.5 Ms Jowa's call for sound pedagogical content knowledge (PCK)

On top of the shared support for learner-centred pedagogy with the other three teacher participants, Ms Jowa felt that “[t]he teacher has to have a deeper understanding of the content and hence be able to apply it so that learners are active.” Unlike her fellow teacher collaborators in the study, she advocated for a strong link between teacher subject matter knowledge and pedagogy for possible learner activity in the classroom. This advocacy for teachers to be well grounded in their subject is borne out by her observation that, “[t]he teacher has to be content-equipped first to then use learner-centred pedagogy to teach the content.” This view of a strong content grasp as a precondition for effective teaching is part of a long-standing debate in literature on whether strong subject matter grounding makes for a good teacher in comparison to sound pedagogical skills (Shulman 1986; Carmen, 2014; Evens, 2015; Heggart, 2016). Shulman was the first to articulate the concept of ‘pedagogical content knowledge’ (PCK) as a special amalgam of content and pedagogy making up a teacher’s knowledge of “the ways of representing and formulating the subject that make it comprehensible to others” and knowledge of “what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them” (Shulman, 1986:9).

With regards to what is more important for effective teaching and learning, prevailing literature, taking its cue from Shulman’s conception of PCK, generally acknowledges the combined importance of both subject mastery and pedagogical skills. Literature goes further to suggest, in line with Heggart (2016:1), that:

... teachers - whether they are subject specialists or generalists - need a wide range of different skills and attitudes if they are to assist their students achieve high outcomes. These should include relationships with students, subject matter knowledge and also an understanding of pedagogical processes to develop the understanding that is required. Should a teacher fail to have any of these, then it is likely that the learning in the classroom will not be as successful. However, it would be foolish to isolate one of these skills to the exclusion of all others: teaching, like most people-centred professions, requires a range of abilities and skills that the practitioner carefully weaves together, in such a way as to provide the most meaningful experience possible.

Literature therefore partly explains Ms Jowa's pre-occupation with PCK which, however, has to encompass other facets that are constitutive of a complex teaching-learning milieu. It is also noteworthy that Ms Jowa's call for teachers' sound pedagogical content knowledge as a necessary pre-condition for successful enactment of the learner-centred pedagogy was in line with a similar MoPSE's insistence for teachers to have a deep understanding of the *ZCF 2015-2022* reform as a condition for successful implementation (Ministerial Launch Statement *Ground Zero Getting Traction*, Slide 24 and Circular No. 2 of 2017:9). Ms Jowa, however, acknowledged that she had inadequate exposure to *ZCF 2015-2022* policy documents such that her call for PCK did not entirely derive from any intimate exposure to these documents but was part of her pre-existing understanding of the processes of teaching and learning.

5.5 Teachers' Performance in the Wake of the Learner-centred Pedagogical Reform

The third sub-question which framed this work was on *how geography teachers enacted learner-centred instructional approaches at middle secondary level in the wake of the ZCF 2015-2022 reforms*. This sub-question entailed looking at the kinds of teacher practices in geography form 3 and 4 lessons as part of implementing the *ZCF 2015-2022* instructional policy reform. Data to address this question were mainly derived from an analysis of the three observed, tape-recorded and transcribed lessons for each teacher. As indicated earlier, in Section 5.3, all four teachers professed support for learner-centred pedagogy although this was not necessarily because they were well acquainted with the pro-learner-centred policy stipulations of the new curriculum. A

summary of the main observed teaching approaches used by the teachers is given in Table 5.2.

Table 5.2: Teacher Comparative Use of Selected Teaching-Learning Approaches.

Teacher Participant	Teaching-learning approach				
	Class question & answer	Group work	Text work	Games & simulation	Media use
Mrs Gumbo	✓	✓	✓		✓ Varied
Mrs Musi	✓				❖ Chalkboard
Mr Mtero	✓	✓		❖	✓ Chalkboard
Ms Jowa	✓	✓	❖		✓ Chalkboard

✓ Teaching method used

❖ Some elements of the teaching method

Table 5.2 shows that, in the observed lessons for Mrs Musi, the question-and-answer approach was the main pedagogic style. However, despite their predominant use of the question and answer method, the other three teachers tried their hand at learner-centred methods. These methods included group work (Mrs Gumbo, Mr Mtero and Ms Jowa), media use (Ms Jowa, Mr Mtero and Mrs Gumbo), text-based teaching (Mrs Gumbo Ms Jowa) and games and simulations (Mr Mtero). Teaching styles involving use of some stimulus material or prior knowledge such as teaching-learning media, text work and collaboration through group work tended to create learning environments for effective contextualised questioning in which learners had reference materials they could relate to and from which to engage in meaning making. This contrasts with use of questioning on abstract content or recall in which learners did not refer to any stimuli or collaborative learning context. Overall, Table 5.2 portrays a picture of a uniform use of the question-and-answer approach coupled with disparate adoption of potentially pro-learner-centred techniques both of which had varying effectiveness.

5.5.1 Question and answer method: An ineffective *simile in multis* teaching style

All four participant teachers used the class question-and-answer approach as some *simile in multis* or commonality in many style. This main ‘tool-of-the-trade’ technique is evident in the observed lesson vignettes such as for Mrs Gumbo (Figures 4.3, 4.4 and 4.5); Mrs Musi (Figures 4.10, 4.11 and 4.12); Mr Mtero (Figures 4.13, 4.14 and 4.15) and Ms Jowa (Figures 4.17, 4.18 and 4.20). The question-and-answer teaching style in these vignettes was characterised by teacher-dominated univocal (Blanton *et al.*, 2001), or contributive or incremental (Ribeiro & Camillo, 2012) dialogues. These question-and-answer sessions did not always engage learners in meaningful learner-centred learning.

Instances of ineffective use of the question and answer method were found in the lessons of Mrs Gumbo and Mr Mtero, as illustrated in vignettes Figure 4.9 and Figure 4.14, respectively. In strikingly similar lesson episodes on the concepts of greenhouse gases and global warming, the two teachers did not always fully utilise the question and answer method for learner-centred meaning making. The teachers who, in earlier phases of the lessons, had successfully used the question and answer method by having learners explain identified issues, *albeit* at the comprehension domain level, got stuck by not continuing with this *modus operandi* when it came to the concepts of greenhouse gases and global warming. At that stage, the teachers manifestly abandoned their established pattern of using prompts or probes on learners’ responses for possible deeper geographical conversations by glossing over the issue of global warming. This selective content coverage and lack of teacher scaffolding subverted the learning from the preceding interactive trajectories to abrupt sudden-end or *cul-de-sac* encounters. In failing to utilise learner suggested openings for deeper understanding, the two teachers structured didactic episodes which eschewed possible ‘tagging onto’ or ‘scaffolding on’ learner contributions through probing questions. This failure to build on learner answers to develop the lessons was a common feature for all four teachers, though the severity varied. This is evident in lesson segments or vignettes Figure 4.13 (Mr Mtero), Figure 4.8 (Mrs Gumbo), Figure 4.12 (Mrs Musi) and partly in Figure 4.17 (Ms Jowa).

Another related weakness in the use of the question-and-answer approach by all teachers, particularly Mrs Musi in vignette Figure 4.10, showed that they mostly relied on questions that required learners to give recall information or simple answers to the exclusion of deeper geographical reasoning. Throughout the three observed lessons, Mrs Musi demonstrated an inclination to teacher-exposition. In the post-lesson-observation interview she gave an excuse that "... even if one wanted to involve them [learners], this turns out to be cumbersome. One ends up providing the required explanation." This state of affairs portrays teaching as a process of teacher presentation and explanation of content with learners mainly responding to teacher questions. In the case of Mrs Musi, the questions were mainly closed, low level type questions. In failing to fully harness the class question and answer method, Mrs Musi's case represented, as explained fully in Section 5.5.2.1, a divergence between the teacher's espoused pro-learner-centred beliefs and actual observed classroom practice.

The failure to fully utilise learner answers for relevant and deeper learner geographical explanations or understandings also manifested itself in other ways as in the habitual 'revoicing' of Mrs Gumbo and, to a lesser extent of Mrs Musi, or their rather excessive repeating of learner answers. In the case of Mrs Gumbo's lessons, the use of the question-and-answer approach featured revoicing learners' contributions in answer to questions. In the view of Schoenfeld (2013) and Blanton *et al.* (2001), such repeating or 'revoicing' of learner contribution may serve to reinforce the dominance of teachers as the only individuals able to validate the information generated and mobilised in the classroom. In so being, this could be viewed as inimical to learner-centredness.

5.5.1.1 Explaining the unsuccessful adoption of the question- and-answer technique

The common challenge among participant teachers to create learner-centred learning environments through the question and answer method can be explained with reference to previous research findings in extant literature. In the study, adoption of learner-centred pedagogy was potentially attainable given that all teachers professed support for it. This was especially so through the class question-and-answer approach generally and other teaching learning styles shown in Figure 5.2. There is a growing corpus of

research on teaching to the effect that the class question- and-answer teaching technique, if properly executed, can attain some measure of learner-centred learning (Ball, 1988a; Schoenfeld, 2013; Mykrä, 2015; Awases 2015; Case, 2016). Schoenfeld (2013), writing on mathematics teaching and learning, has shown that teacher ability to 'tag on' or 'scaffold' learner knowledge in question-and-answer sessions is an important pedagogic skill through which lessons with high productivity and learner-centredness can be realised. According to Schoenfeld (2013), lessons with high productivity are characterised by teachers who treat learners as 'competent' and 'capable' of learning by letting them engage in deeper conceptual conversations to resolve subject questions, problems and issues. There is consensus that such teacher dispositions require teachers with strong pedagogical content knowledge (PCK) (Kind, 2009; Fernandez, 2013; Schoenfeld, 2013).

Although consensus on what constitutes PCK is far from being achieved, according to Schulman (1986), as shown earlier on in Section 5.4.2.5, the concept of PCK depicts a special teacher-based amalgam of content and pedagogy in a subject area that enables the teacher to present subject content in ways that are comprehensible to others and make the learning of specific topics easy. In this connection, the inadequate and ineffective adoption of learner-centred instruction can thus be understood and explained by drawing on work by Cohen (1990) and Schoenfeld (2013) based on the teaching school mathematics in the USA. Cohen (1990) reports on the case of a Mrs Oublier (or Mrs O), whom he observed teaching elementary mathematics in the state of California. In the wake of an innovation to teach maths for understanding in the early 1990s, Cohen (1990) concluded that Mrs O failed to do so. The main reason for such failure was a weak content mastery, a situation which finds some parallels in the present study. This is illustrated in the efforts of Mrs Musi, and to a lesser extent the other three teachers, to use the question and answer method to harness learner contributions for learner-centred learning and the requirements of the lesson. In a context related to a strong PCK, Ball (1988a) has also shown that, to facilitate learners' construction of subject understanding, mathematical understanding in the case of her research, requires ability to pose good questions. The collaborating teachers, especially Mrs Musi as shown in vignette Figure 4.10 (lines 4-5 and 11-13), used questions that, in the main, elicited

recall responses to the exclusion of prompting learner explanations or ‘tagging’ onto learners’ responses to develop deeper geographical conversations.

In this context and, as suggested by extant literature (Ball, 1988; Kok- Aun, Boon-Tiong, Charles, Chew & Joseph 2004; Schoenfeld, 2013) the poor execution of the question and answer method in the observed lessons seemed to partially emanate from teachers’ weak pedagogical content knowledge (PCK). Consequently, the question and answer method adopted failed to effectively harness learner knowledge and stimulate participation thereby resulting in superficial learning inimical to effective learner-centred teaching. Put differently, the ineffective use of the question and answer method negated learner contribution to knowledge construction thereby generally scuttling opportunities for learner-centred teaching in the observed lessons.

Other explanations for the non-learner-centred teaching exhibited are discernible from literature but closely approximate the Zimbabwean situation. Mtitu (2014), writing in an East African context, argues that a possible lack of appropriate knowledge on constructivism limits the uptake of learner-centred instructional reforms. here is an observation that even though constructivism is the root learning theory of learner-centred pedagogy, it is not well known among teachers (Mtitu, 2014; Baeten, Dochy, & Struyven 2012). In the Zimbabwean situation, as shown by an earlier analysis of policy-related documents, teachers did not have ready and timely access to flagship documents to be sufficiently conversant with these policy documents and let alone their constructivist basis (refer to Section 4.19).

In another study of observed lessons, Lefstein (2008) provides possible explanation to the limited uptake of learner-centred pedagogy. Lefstein (2008) ascribes the unsuccessful uptake in the implementation of the English National Literacy Strategy (NLS) to an inherent contradiction in the approach to staff development of teachers and the recommended classroom pedagogy teachers had to adopt in literacy classes. The NLS explicitly espoused discursive, interactive, and ambitious teaching practices, including, for example, the use of open questions to provoke pupil critical thinking. However, its professional development programme or induction employed a

transmission pedagogy that positioned learners as passive, uncritical recipients of a tightly closed lesson plan. Similarly, the teacher induction programme adopted for the new Zimbabwean competence-based curriculum used a top-down ‘take it or leave it’ approach which contradicted the participatory learner-centred approach teachers were expected to adopt in their classes. Thus, non-adoption of *ZCF 2015-2022* learner-centred pedagogy reform can be explained in the same manner that Lefstein explains the failure of the NLS. As Lefstein (2008:718) explains, “... the professional development’s hidden curriculum communicates ideas about teaching and learning that undermine its explicit curriculum”. It may therefore be a tall order to induct teachers through top-down approaches and expect them to effectively use learner-centred approaches to which they would not been effectively exposed.

Putman and Borko (2012:1233) proffer another possible explanation for continued adherence to teacher-dominated pedagogy among teachers. They suggested that “[t]he press of day-to-day survival in the classroom may keep teachers so busy that envisaged changes may never become deeply entrenched as part and parcel of their day to day practice. Deep change is hard to come by and it necessitates careful nurturing, support and time” (Putman & Borko, 2012:1233). Responses in the heat of the teaching-learning moment can thus lead to a teacher inadvertently overlooking opportunities to meaning making emanating from learners. This sounds like a plausible explanation to situations where the observed teachers failed to turn question-and-answer sessions into opportunities for learner-centred meaning making. A case in point is that of Mrs Gumbo who, as earlier reported in Section 4.15.6, when asked to explain instances of apparent failure to ‘scaffold’ or ‘tag onto’ learners’ contributions, she said: “ (s)ometimes in the thick of teaching, these instances [...] are overlooked as one wants to cover the planned content.” Additionally, there were also teacher submissions, such as those from Ms Jowa in Section 4.18.4, to the effect that she lacked time to acclimatise to the new curriculum’s requirements.

There is thus a sense in which the *ZCF 2015-2022* learner-centred instruction reform, in a manner similar to that suggested by Spillane (2000), cited in Jita and Vandeyar (2006), may have represented a challenge for the classroom teachers. Similarly,

Putman and Borko (2009) observe that deep change is hard to acclimatise to and necessitates careful nurturing, support and time. As Cohen (1990: 323) notes, in connection with the earlier quoted case of Mrs O, teachers are “historical beings” with inherited habits and practices which they cannot easily slip off like dirty old coats and adopt new teaching methods just like that. For Louden (1991:xi), “[a] teacher’s response to new problems is shaped by [...] historically sedimented patterns of action” The teachers in the study were in the formative stages of the *ZCF 2015-2022* reform and were supposedly transitioning from traditional teacher-centred approaches with little emphasis on *ZCF*-linked learner-centred pedagogy involving problem solving, critical thinking and interactive classroom discourse. Capitalising on potential learner-centred opportunities may thus not always have been easy in teaching learning situations.

5.5.2 Espoused learner-centred views vis-à-vis observed teacher-centred lessons

Research findings in this study show that the collaborating teachers’ ‘espoused theories’ or support for learner-centred pedagogy were generally incongruent with their ‘theories-in-use’ or actual teaching (Argyris & Schön, 1974). As already shown in submissions from self-checking instruments like the simulated vignette responses to given teaching-learning scenarios (Appendix 13) and a self-checking learner-centred instructional practices gauge (Appendix 14), all four teacher participants professed support for learner-centred pedagogy. Further to this Mrs Gumbo’s self-journaling response, which was substantial in comparison to the other teachers, also showed teacher support for learner-centred pedagogy. Learner-centred pedagogy was one of the new curriculum’s main instructional innovations. However, in contrast to these self-checking data generating tools’ findings, observed lessons evinced a predominance of teacher-centred teaching. In this regard, the discrepancies between espoused learner-centred pedagogy and actual teaching manifested themselves among all participant teachers though with varying levels of intensity.

Although Mrs Musi was the most vocal supporter for learner-centred teaching, her teacher-dominated lessons showed greatest divergence between teacher espoused pro-learner-centred pronouncements and actual observed classroom practice. As

evident in Table 5.2, the other three teachers employed approaches with potential for learner-centred teaching and learning over and above the question and answer method in their classes. Resultantly, in stark contrast to Mrs Musi's case, the other three teachers' lessons showed no comparable dissonance between teachers' 'espoused theories' and their 'theories-in-use'. Overall, if one were to arbitrarily rank the participant teachers' practices on a scale of decreasing theory-practice dissonance, it would be something like Mrs Musi followed by Mr Mtero, then Ms Jowo and, lastly, Mrs Gumbo. Put differently, Mrs Gumbo's classroom practice mainly inclined toward learner-centredness followed by Ms Jowa's then Mr Mtero's practices in contrast to Mrs Musi's teacher-centredness. An explanation of the degree of divergence between espoused pedagogy and observed pedagogy ought to be explored from a pedagogical dichotomy of 'espoused theory' vs 'theory-in-use' variations perspective.

5.5.2.1 Explaining espoused vis-à-vis observed classroom practice divergence:

Mrs Musi

The divergence between espoused and observed classroom practice can be seen as an issue of how a teacher's knowledge and beliefs play out in the classroom. A predominant finding on Mrs Musi was the inability to realise her espoused learner-centred pedagogy beliefs in the observed lessons. Similar cases of failing to live up to espoused beliefs, let alone instructional reform expectations in the classroom, have been reported and explained in extant literature. Such studies help explain the case of Mrs Musi. In his seminal work on Mrs O, Cohen (1990) illustrated that what teachers say they believe and what they actually do in the classroom can be vastly different things. Cohen (1990) reports on Mrs O's efforts, in the wake of a 1990 California state-wide innovation, to teach elementary 'maths for understanding'. Despite enthusiastically welcoming this change, Mrs O failed to meaningfully teach 'maths for understanding' since she continued to use old methods, although laced with lots of learner activity, without grounding such learner activity in deep mathematical reasoning.

In the present study, Mrs Musi like Mrs O, failed to meaningfully enact an 'espoused theory' advocating a learner-centred teaching approach. Instead, she manifested 'a theory-in-use' teacher-centred approach in observed lessons. Such an unintended

teacher-centred approach would, in Cohen's (1990) explanation, constitute 'dynamic conservatism' emphasising a continued, *albeit* disowned, adherence to erstwhile pedagogical practices. For Mrs O the main reason, as Cohen (1990) explained, was a weak content mastery. This could be a situation broadly similar to Mrs Musi's efforts in which she failed to effectively harness learner contributions to the requirements of lessons, let alone to achieve her avowed learner-centred teaching. Ms Musi used questions that required learners to give recall information or simple answers to the exclusion of deeper geographical reasoning (Refer to Section 4.16.5). Mrs Musi's lessons showed an inordinate recourse to low order questions and a proclivity for teacher-exposition. In this regard, Mrs Musi's case can also be said to mimic that reported by Lefstein (2008) in a study of on classroom implementation of the English National Literacy Strategy (NLS). The NLS study showed that both teacher and learners could be joint, even though unknowing, culprits in defeating the curricular designers' intentions. This is so because Mrs Musi tended to rely on what Lefstein (2008) termed established interactional genres in her classroom, that is, low order questions and teacher-exposition. Refer to Figures 4.10, 4.11 and 4.12. Such customary patterns of interaction did not rise to the expected learner-centred lessons as learners seemed comfortable in their traditional view or role that if they did not volunteer an answer the teacher would finally provide one. This is borne out by Mrs Musi's earlier quoted submission (refer to 5.5.1) that "... even if one wanted to involve them [learners], this turns out to be cumbersome. One ends up providing the required explanation." A further explanation of Mrs Musi's theoretical support for learner-centred, as reported earlier in Section 5.3.4, may reflect what some studies argue is an increased support for learner-centredness which develops with a teacher's increasing length of service (Berger *et al.*, 2018; The Teaching and Learning International Survey – Organisation of Economic Cooperation [TALIS-OECD], 2009, 2014). In this study, this may be applicable to the case of Mrs Musi who had the longest period of service of 18 years compared the three other teacher participants (Mrs Gumbo – 10 years, Ms Jowa – 10 years and Mr Mtero – 5 years).

Frurther to these possible explanations for Mrs Musi's classroom behaviour, and as argued earlier in Section 5.5.2, it is important to realise that studies on classroom

interactions have, over the years, increasingly acknowledged the complexity of the teaching learning milieu and the fact that teacher actions and responses cannot be subject to simplistic explanations. In this respect, literature helps to explain the persistence of Mrs Musi's teacher centred approach. For example, Surgrue (1997:xi) posits that:

... the process in which teachers engage when constructing teaching is not merely the putting into practice of official policy, but a complex amalgam of various competing and often conflicting factors.

This complexity of the classroom situation highlighted in extant literature alerts one to the fact that, whatever explanations may be proffered as to whether classroom practice is learner-centric or teacher-centric, these may never suffice to explain the complexity of the teaching-learning milieu. This is not only for Mrs Musi and her fellow participant teachers in this study but for all teachers in general. At best the different explanations are variously tinted lens through which to view the complex reality of classroom practice.

Apart from illuminating Mrs Musi's case, extant literature proffers reasons to explain research findings showing dissonance between all participant teachers' espoused and observed classroom practice. One of the main reasons lies in inherent respondent biases that accompany the use of self-checking data generation tools. As noted earlier in Section 5.5.2, findings based on data from these instruments had teachers claiming the use of learner-centred pedagogy. This contrasted with the mainly teacher-centred lessons witnessed in lesson observations. Hoskins (2012) and Highfield (2016) explain the espoused vis-à-vis observed classroom practice dissonance as resulting from two types of respondent bias. Firstly, there is social desirability bias where respondents tend to answer in ways that make themselves look good. Secondly, there is social acquiescence bias where respondents tend to agree with what they know is the ideal or progressive. The on-going drive for learner-centred pedagogy and pre-existing teacher training exposure to contemporary pedagogical practices were ideal ground for the manifestation of these biases as teachers responded to self-checking instruments thereby bringing out their espoused support for learner-centred pedagogy. In further

support of such biases it is important to note the observation by Reese (2013:323-324) that; “[p]rogressive ideas are easier to proclaim than act upon”.

It is important to note these teacher respondent biases were cross-checked and triangulated through an inbuilt structuring of the research processes and the many data generating tools used. The structuring of the research in soliciting self-checking data first followed by observation and interview data meant that, as explained in Sections 1.7.1 and 3.9.4, genuine ‘espoused theory’ data could be compared to observed ‘theory-in-use’ data. Thus, it was possible to find authentic teacher performance in the wake of the *ZCF 2015-2022* drive for learner-centred pedagogy. The use of many data generating techniques enabled triangulation of research findings.

5.5.2.2 Explaining the match between espoused and observed classroom practice

Generally, Mrs Gumbo’s lessons approximated learner-centredness more than those of the other teachers but especially for Mrs Musi. From Table 5.2, it is evident that all teachers used a class question and answer method. Mrs Gumbo, in contrast to Mrs Musi, used pro-learner-centred techniques like group work, text-based and multi-media-based teaching. Overall, there was greater convergence between espoused vis-à-vis observed classroom practice for Mrs Gumbo compared to Mrs Musi. Research findings suggest that Mrs Gumbo, Ms Jowa and Mr Mtero’s inclination to learner-centredness in the observed lessons was partly attributable to membership to a quasi-professional learning community (PLC), participation in staff development, a strong PCK foundation and other school level variables.

Membership of a PLC

Of the four teacher participants in this study, Mrs Gumbo was the only one who was an active member of a geography subject PLC, the Harare Province Geography Association (HAPROGA). Mrs Gumbo saw value in being a member of HAPROGA in relation to implementing the new curriculum, as highlighted in her remark that:

... as members we observe and discuss learner-centred lesson presentations by fellow teachers which I can say give one some ideas of how to implement these in one's classroom.

By facilitating such collegial interactions, members of the association were able to initiate and mediate on-going *ZCF 2015-2022* change-related teacher conversations, exchanges and activities. Mrs Gumbo's acknowledgement of the PLC's positive contribution in the adoption of the new curriculum echoes findings in prevailing literature. Tam (2014), writing in a Taiwanese context, has shown that membership in a PLC in the wake of educational reform is helpful in having teachers to easily embrace the required changes to their beliefs, pedagogical practices and roles. Mrs Gumbo's PLC membership enabled her to understand and, to some extent, enact learner-centred pedagogy. This situation reflects the contribution of an invisible community of intersubjective meaning makers who reach agreement, which sense-making literature underscores as part of collective sense-making (Louden, 1991; Gephart., *Topal*, & *Zhang*, 2010). In this context, Gephart *et al.* (2010:285) view sense-making as a process through which "people create and maintain an inter-subjective world to produce, negotiate and sustain a shared sense of meaning."

Other fortuitous variables

Membership of a quasi-professional PLC, the Harare Province Geography Association (HAPROGA), worked with other predisposing variables that could have helped Mrs Gumbo teach the new curriculum in ways that I observed to be qualitatively richer than the other three teachers. Research evidence in the present study suggests that one factor which may have helped narrow the gap between Mrs Gumbo's espoused pro-learner-centred leanings and her actual classroom practice relates to her participation in staff development and the resultant strong PCK. All the 4 participant teachers, as discernible from Table 5.2, had either completed or were pursuing some undergraduate or post-graduate teaching profession-related studies. Mrs Musi was pursuing an MEd in Curriculum Studies while Ms Jowa had completed a BEd degree in geography. Mr Mtero and Mrs Gumbo were studying for a BEd degree in history and geography respectively at the time of the research.

Mrs Gumbo and Mr Mtero suggested that participation in professional development activities had influenced their perception and preference for learner-centred instruction. In contrast, Mrs Musi and Ms Jowa did not suggest any association between their teaching technique and continuing professional development. Mrs Gumbo saw the ease with which she used multi-media in her teaching, an aspect emphasised by the new curriculum, as a result of exposure to such media use in the B.Ed. programme she was enrolled in. Her comment was, “[w]e were required to demonstrate how we could use ICT-linked multimedia materials in teaching.” Similarly, Mr Mtero offered an explanation of the link between professional development and his pro-learner-centred pedagogic style thus; “... in many respects my learner-centred leanings derive from the training course.” However, as earlier reported in Section 4.7.3, through a rather superficial perspective, Mr Mtero also thought that the learner-centred pedagogy stipulated in the new geography syllabus 4022 was mere continuation of erstwhile practices in geography teaching, hence the *ZCF* learner-centred requirement was “nothing new”. Mrs Gumbo and Mr Mtero, when compared to the other two participants, were able to create what I viewed as freer and active learning environments in lesson segments or vignettes Figures 4.5 and 4.15, respectively. Both participants accommodated and encouraged learners’ contributions thereby creating what Grabinger and Dunlap (2016) refer as Rich Environment for Active Learning (Reals).

The link between self-professional development and pro-learner-centred teaching highlighted in remarks by Mrs Gumbo and Mr Mtero resonates with findings reported in literature. Findings from an Organisation for Economic Co-operation and Development (OECD) 2009 study show that professional development is effective in instructing and inspiring teachers to use student-oriented practices and associated activities (OECD, 2009:117). The OECD study goes on to suggest that participation in further staff development results in self-motivated teachers. In the context of the present study, since all four teacher participants had pursued or were pursuing some form of self-professional development, it could be said that such teacher self-motivation predisposed them for possible successful enactment of new instructional reform such as the *ZCF 2015-2022*. However, such a direct relationship between self-professional development, self-motivation and ready uptake of instructional reform needs qualification. As

suggested in the OECD (2009) study, it is quite possible that teachers supportive of reform can easily apply innovative teaching strategies and may frequently use learner-centred pedagogy and learner activities all deriving from a generic motivation to learn. This, in turn, may explain their pursuit of further professional development. It is thought that, besides changing teachers' personal beliefs and individual practices directly, professional development can help foster collaboration and co-operation among teachers and have indirect effects on beliefs and practices and a more general impact on school quality (OECD, 2009:117).

Mrs Gumbo was fortunate to be at Reeters Secondary, the only school in the study where I witnessed the use of an LCD projector. In this regard, the availability of requisite equipment, appropriately equipped classrooms, and teacher pedagogical technological knowledge (TPACK) made it possible for Mrs Gumbo to use such multi-media in teaching. A combination of adequate teacher knowledge, skill and predisposition, the requisite equipment and material resources, thus allowed a commendable adoption of learner-centred pedagogy. This is line with the observation by Schoenfeld (2013) that a teacher can only implement what he or she knows or does have the resources for. Such was the case with Mrs Gumbo. Mrs Gumbo turned out to be a dedicated teacher willing to use her own resources to have her students learn. For example, given the shortage of laptops at her school she expressed that, "I have had to use my laptop." It is important to record that the orderly way in which the school was run belied the noisy bustle and hassle outside the brick-walled school boundaries. This is characteristic of a crowded high-density suburb in which the school is located. The observed business-like school environment predisposed to effective teaching and learning, and *ipso facto*, the implementation of the new competency-based curriculum in a school located within a largely anti-school environment.

5.5.3 Biographic attributes and local actor's sense-making

The role of biographic factors in understanding participant teachers' sense-making needs to be recast as this chapter on cross-case analysis draws to a close. Studies by Loudén (1991), Surgue (1997), Jita (2004) and Chimbi and Jita (2019) emphasise the importance of life history experiences in teachers' attitudes towards teaching, its

execution and instructional reform. Admittedly, life history experiences and attributes, which Jita (2004) terms “resources of biography”, constitute important teacher biographic characteristics that shape teachers’ sense-making process. Granted this importance of life history attributes, the present study did not delve into issues of how participant teachers decided to become teachers, preferring to focus mostly on teachers’ contemporary biographic characteristics. A synoptic synthesis of study findings on teacher personal attributes include: (i) qualification, experience, and views on teaching and learner-centred pedagogy, (ii) continuing self-professional development, (iii) membership to some professional learning community (PLC), (iv) teacher motivation (v) creation of freer classroom environments and (vi) supportive school environments. All these attributes ought to be explored with regards to their influence on how teachers understand and enact the *ZCF 2015-2022* learner-centred instructional innovation.

As is evident in Table 5.1, the years of teaching experience broadly varied in direct proportion to the teachers’ ages ranging from 5 years for Mr Mtero aged 31 years to 18 years for Mrs Musi aged 40 years. Mrs Gumbo and Ms Jowa had both 10 years’ experience though aged 34 and 36, respectively. All four teachers trained in geography education at either initial non-graduate teacher training college level or post-graduate diploma teacher training level. The four teachers therefore possessed the required academic and professional training to teach geography at forms 3 and 4. All the teachers espoused support for learner-centred pedagogy which the study findings and extant literature (UNESCO, 2011; Tsvere, 2000) have attributed to initial training courses and to possible biases in responding to self-checking research instruments (Hoskins, 2012; Highfield, 2016). Likewise, notwithstanding the difference in teaching experience, the four teachers had high regard for the learner-centred approach. Here the most effusive supporter for the learner-centred pedagogy was 40 year old Mrs Musi with the longest years of service at 18 years. Though literature justified such support for a constructivist approach due to a long teaching service (UNESCO, 2011; Mahommed, 2014), for Mrs Musi, it was more of parroting the learner-centred language of school-level induction workshops with little ability of enacting this in her classrooms. She, like her colleagues, taught using mainly teacher-dominated question-and-answer sessions that contradicted an ‘espoused theory’ learner-centred pedagogic disposition. With regards to this

situation, literature alerts us to an inherent human tendency to verbally support the ideal where actual practice shows the opposite (Reese, 2013; Cohen, 1990). Indeed, teachers tend to overestimate the degree of change in their practices.

In yet another contrast, the three other younger and less experienced teachers' ideas of teaching and classroom practices showed closer consistency though not total convergence to learner-centred teaching than Mrs Musi. In sum, findings from this work suggest that some of the attributes contributing to pro-learner-centred pedagogy sense-making and practices among teachers included: (i) membership to some PLC (Mrs Gumbo); (ii) participation in staff development courses (Mr Mtero and Mrs Gumbo); (iii) relatively strong TPCK (Mrs Gumbo) and PCK (Mrs Gumbo, Mr Mtero and Ms Jowa); (iv) high teacher motivation (Mrs Gumbo); (v) creation of freer classroom environments (Mrs Gumbo and Mr Mtero); and (vi) a more supportive school environment (Mrs Gumbo). To some extent Mrs Gumbo and Mr Mtero were able to create what Grabinger and Dunlap (2016) refer to as Rich Environment for Active Learning (Reals) that augured well for collaborative learning activities where learners were able to utilise their real or authentic experiences. In contrast, factors like lack of time to acquaint oneself with policies (Mrs Gumbo and Miss Jowa), inadequate background reading materials (Mr Mtero), lack or delayed availability of supplementary guides (Mrs Gumbo and Mr Mtero), and weak PCK among the teachers in one way or another limited pro-learner-centred pedagogy sense-making. Study findings suggest that, at a general level, teacher personal attributes were potentially constitutive variables promoting or inhibiting learner-centred pedagogy in line with the *ZCF 2015-2022* educational reforms.

5.6 Surprises and Unexpected Findings

This cross-case analysis has revealed several unexpected issues which tend to contradict usually taken-for-granted situations. The case of Mrs Musi, in a manner analogous to the observation by the Biblical character Elihu in the Book of Job, proved that though; "... many years teach wisdom. [...] It is not the old who are wise nor the aged who understand what is right" (Olive Tree Bible App, Chapter 32 verses 7-9). One would qualify this by emphasising that the old are not necessarily wise. Mrs Musi, of the four participants, was the most academically qualified in that she was pursuing an M Ed

degree and was the oldest of the four teacher participants. In light of her higher qualification, long service, which factor literature also considers important (Berger *et al.*, 2018), and her effusive support for learner-centred pedagogy, one would have expected her to enact learner-centred lessons more effectively when compared to her colleagues. However, her case proved to be one with the greatest dissonance between policy intentions and actual implementation.

Normally, it would be expected that long established schools located in supportive, well-to-do environments and communities, fare better in implementing centrally inspired change. However, the cases of the four schools in which participants were practising proved the opposite. For rural schools *ZCF 2015-2022* implementation at the long-established Chinhamo Boarding Mission School did not enjoy more material and professional support than was accorded the process at the post-1980 Rapera Rural Day Secondary School. In Harare Urban, Reeters Secondary a post-2000 school, located in a low income, high density suburb and generally anti-school environment, acquitted itself well in implementing *ZCF 2015-2022* reforms. In contrast, Naviana High School, established in the 1970s and located in a posh suburb with a supportive school environment and community, can be said to have evinced relatively moderate success towards the implementation of the reform on the basis of a lower LSM provision. Teachers working in not so well-to-do schools showed remarkable ability to implement learner-centred pedagogy comparable if not better than those working in well-to-do schools. This situation, though unexpected, is akin to one reported for South African schools where, Chikoko *et al.* (2015:452), found out that schools in multiple deprived areas "... display high degrees of resilience and perform at levels comparable to first class schools in terms of Matriculation examination results." One may conclude, in line with Chikoko *et al.*'s (2015) conclusion on school leadership that teachers in schools with multiple deprivations need to possess together with their school heads perspectives that move "... them away from notions of victimhood and deficit thinking towards asset-based approaches." (Ibid: 452) so as enact learner-centred pedagogy.

It was also interesting to find out that teachers, perhaps through research respondent biases of social desirability and social acquiescence (Hoskin, 2012; Highfield, 2016)

proved that their ‘espoused theories’ or theoretical support for learner-centred pedagogy was incongruent with their ‘theories-in-use’ or actual teaching in the observed lessons (Argyris & Schön, 1974).

5.7 Summary of the Chapter

This chapter has analysed the commonalities as well as differences in the research findings in line with the four sub-questions that framed the study. While policy signals were fairly well articulated in 12 reviewed documents, this was not matched with local actors’ understanding of these policy signals. The study findings suggest that this emanated from local actors’ emasculated understanding resulting from a hurried and ineffective pre-implementation induction and roll out process typical of centralised education systems such as in Zimbabwe (Zvobgo, 1999; Kanyongo, 2005; Mavhunga, 2014). The findings, with respect to the second sub-question on *how geography teachers understood and made sense of the ZCF 2015-2022 instructional requirement to use learner-centred approaches*, were that all four collaborating teachers commonly claimed to use learner-centred pedagogy. Such pre-existing teacher norms and beliefs were derived more from their initial teacher training courses than an understanding of the *ZCF 2015-2022* reform. The teachers indicated that they were neither fully conversant with the *ZCF* learner-centred pedagogy (LCP) reform nor its accompanying literature, a situation giving primacy to pre-existing teacher understandings of the learner-centred pedagogy drive.

As to how teachers taught in the advent of the *ZCF 2015-2022* reform, there was a common prevalence of transmission pedagogy through the question-and-answer approach. This was coupled with a general inability to attain the espoused learner-centred pedagogy because of continuing teacher dominance of classroom transactions. The findings suggest the reasons for this to be, as confirmed also by other studies, a weak PCK that in turn led to a multiplicity of shortcomings such as failure to pose the questions (Ball 1988a), inability to utilise learner responses for deeper and active learner involvement (Schonfeld, 2013), and reliance on simple closed questions (Ball, 1988, Kok-Aun Toh *et al.*, 2004; Schoenfeld, 2013). In line with extant literature, this study’s

findings indicate that teacher sense-making, in relationship to enactment of learner-centred pedagogy, depends on teachers' pre-existing biographic attributes, school level conditions and macro-level variables external to schools. The next chapter provides a summary of the research findings on the basis of which main conclusions and recommendations are drawn.

CHAPTER 6

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the main findings of the study and draws related conclusions and recommendations. In common with many reforms elsewhere, the implementation of envisaged changes has proved to be the Achilles' heel of the educational change process in Zimbabwe. The introduction of educational reforms and their consequent implementation is not new in Zimbabwe. Curriculum and instructional reforms, changes and innovations have been a constant feature of post-colonial educational provision since 1980. The latest and on-going *ZCF 2015-2022* competence-based curriculum drive, Apart from being the first whole-system reform, focuses on a multiplicity of intended changes including a clarion call to adopt learner-centred pedagogy at all levels of schooling.

The question of how teachers interpret and make sense of instructional reforms to teach specific learning areas has had few studies on it, for example, Musingarabwi and Blignaut (2015) on HIV/AIDS education and Chimbi and Jita (2019) in history. Knowledge of how Zimbabwean teachers make sense of external policies they are called upon to implement is therefore a lacuna that the present research sought to fill with respect to the enactment of the *ZCF 2015-2022* learner-centred instructional policy. The research used a multiple case study design to provide an in-depth analysis of how four geography teachers, as local actors, made sense of and enacted the mandated learner-centred policy.

In addition to giving a summary of findings and recommendations, this chapter proposes a theoretical framework as a contribution to how instructional policy can be effectively enacted to maximise local actors' contribution through enhanced and informed cognitive sense-making. In tandem with this, the chapter proposes the tentative possible application of this Integrated Cognitive Sense-Making Framework as a lens on how

future reform implementation can reduce the policy-practice gap commonly reported in implemented curriculum and instructional reforms.

6.2 Summary of the Study

This section summarises the study with regards to the foci and coverage of each chapter. Chapter 1 laid the background to the research with respect to the research problem on how geography teachers made sense and enacted the policy requirement to adopt learner-centred pedagogy at form 3 and 4 levels. The chapter also set out the accompanying sub-questions and briefly explained the qualitative research methodology approach and an *a priori* eclectic theoretical cognitive sense-making framework which anchored and guided many aspects of the study, including providing boundaries on the interpretation of findings.

The focus in Chapter 2 was on reviewing related literature which enabled the identification of a research lacuna with respect to the paucity of curriculum reform implementation and subject-based teacher sense-making studies at secondary school level in Zimbabwe. Furthermore, the review of extant literature underscored the research's epistemological underpinnings in a cognitive sense-making theoretical framework as part of policy implementation studies. The chapter limned how reviewed literature was the seedbed of the sense-making constructs and concepts, the qualitative methodological design issues and the possible interpretive insights that informed this multiple case study.

Chapter 3 described and justified use of a qualitative interpretive research paradigm to investigate the main research question of *how geography teachers enact a learner-centred pedagogy in form 3 and 4 geography classes* and its attendant sub-questions in this multiple case study. The chapter further described and justified, as apposite in this qualitative research, the proposed use of data generating techniques such as self-reflective journaling, teaching scenario-based vignettes, a self-checking learner-centred practices gauge and non-self-checking lesson observations, teacher participant and lower-level policy custodian interviews and document study. Similarly, the selection of

the four teacher research participants, associated ethical issues, data generation and data analysis strategies related to the study were also outlined and justified.

Chapter 4 presented research data broadly in line with the sub-questions that framed the research. Analysed policy documents showed the existence of clear messages on the learner-centred pedagogy on which, however, participant teachers reported inadequate induction. Data generated through self-reporting instruments had all 4 teachers claiming a high use of learner-centred pedagogy. Nevertheless, lesson observations, the related content analysis of classroom dialogue transcripts and interview data showed that all teachers used the question-and-answer approach which, in the main, failed to achieve learner-centred teaching and learning.

In Chapter 5, the cross-case analysis of research findings in line with the four sub-questions that framed the study showed commonalities as well as differences. The comparison of findings was in line with the first three sub-questions. Explanations of findings in answer to the fourth cross-cutting sub-question were simultaneously integrated with relevant findings on the first three sub-questions. Firstly, though policy signals were fairly well articulated in the 12 reviewed documents, this was not matched by local actors' adequate understanding of these policy signals. Secondly, although all four collaborating teachers commonly professed support for learner-centred pedagogy, they also manifested nuanced individually held views on teaching. Thirdly, and in a manner similar to teacher pro-learner-centred pedagogy understanding on teaching, though all teachers espoused use of this method in classrooms, they were observed using a predominantly teacher-centred question and answer method.

Finally, Chapter 6 provides a summary of findings, conclusions and recommendations of the study. The summary of the findings is presented in line with the sub-questions of the research. The chapter, apart from to discussing the significance or the 'so what of the study' question, proposes an Integrated Sense-Making Cognitive Theoretical Framework on how instructional policy can be effectively enacted in ways that maximise congruence between local actors' sense-making and the curriculum policy makers' intentions. Other pertinent issues covered relate to gaps in and limitations of the study

as pointers to possible future research and policy practice, and the researcher's final thoughts.

6.3 Summary of Key Findings

The summary of research findings is guided by the sub-questions framing this research. This study examined, through a multiple case study, how four form 3 and 4 geography teachers understood and enacted the requirement to use learner-centred pedagogy as part of implementing the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* reforms. The sub-questions to assist unpacking the response to this main question and which framed the research are: (i) *What are the ZCF 2015-2022 policy stipulations on the use of a learner-centred approach in teaching and learning of geography at form 3 and 4 levels?* (ii) *How do geography teachers understand the ZCF 2015-2022 instructional requirement to use learner-centred approaches in the teaching and learning of geography at form 3 and 4 levels?* (iii) *How do geography teachers enact learner-centred instructional approaches in geography lessons as part of implementing the ZCF 2015-2022 at middle secondary level?* and (iv) *How can teachers' understandings and practices be understood and explained?* This last sub-question is simultaneously weaved into each of the first three sub-questions to offer an associated explanation of the respective research question's findings. This implies that no standalone treatment of the fourth sub-question is given in this summary of findings as was, *sui generis*, the approach in the cross case analysis in Chapter 5.

6.3.1 The ZCF 2015-2022 policy stipulations on the use of a learner-centred approach

The policy stipulations on the need to use learner-centred pedagogy were investigated through documentary analysis of 12 flagship documents related to the *ZCF 2015-2022* policy reforms. *The main finding is that, in their scope, distribution and reach, the documents were collectively available and sufficiently explicit for lower level policy custodians and local actors like teachers to have a minimum threshold awareness to begin to enact the learner-centred pedagogy.* Put differently, the documents collectively articulated the intended learner-centred pedagogy policy signals or messages. Consequently, the study found out that school heads were generally supportive of

teachers in the implementation of the new curriculum, especially with regards to mounting of school-based induction workshops. However, the major common blackspots with respect to policy stipulations were, as reported by local actors and confirmed in observations: non-compliance with the requirement to allocate five periods per week for geography lessons, inadequate induction on the policy documents generally, and the ZCF 2015-2022 reform document specifically, and delayed availability of CDU-promised supplementary *Teachers' Guides*. These shortcomings, together with an observed shortage of textbooks and reading materials relevant to the new curriculum, and the rather too many changes accompanying the learner-centred pedagogy drive, speak to possible distortions in the policy messages reaching the classroom teacher. When subjected to a cognitive sense-making lens, such policy-related shortcomings translated into potentially limited cognitive sense-making on the teacher's part preventing him or her from fully enacting the learner-centred mandate.

An overall conclusion, which found support from extant literature, was that well-articulated policies ought to go hand in hand with local actor understanding of the relevant policy messages and signals. In the context of the present study such understanding was ineffectual due to a hurried and ineffective pre-implementation induction and sensitisation process, which literature testifies, is generally the norm in centralised systems where there is a top-down approach to curriculum and instructional change (Zvobgo, 1999; Kanyongo, 2005; Mavhunga, 2014). In explaining this finding on the potential policy-practice gap or dissonance between policy stipulations and their adoption at school and classroom level, extant literature accordingly attributes such a disconnect to discordant understandings, values and beliefs encased in official policy vis-à-vis those held by local actors (Tabulawa, 1998; Spillane et al., 2002). This study proffers some suggestions on how such policy-practice gaps may be narrowed in the coverage on recommendations (discussed in Section 6.5) and the proposed Integrated Eclectic Cognitive Sense-Making Framework (in Section 6.6).

6.3.2 Teachers' understanding of the requirement to use learner-centred approaches

A second sub-question framing this work was on *how geography teachers understood and made sense of the ZCF 2015-2022 instructional requirement to use learner-centred approaches in teaching and learning of geography at form 3 and 4 level.*

The findings with respect this sub-question were twofold. Firstly, the four teacher participants in response to self-checking research instruments like self-reflective journaling (Appendix 12), the teaching scenario vignette (Appendix 13) and the learner-centred instructional gauge (Appendix 14), *espoused a common support for learner-centred pedagogy as part of their knowledge repertoire on teaching. However, each teacher held additional nuanced individual understandings that differed from the other three.* These common and different understandings did not derive much from the *ZCF 2015-2022* learner-centred pedagogy (LCP) reform since participants indicated that they were not fully conversant with the *ZCF 2015-2022* reform and the literature accompanying it.

The study finding of common espoused support for learner-centred pedagogy had a common origin, traceable to exposure to pro-learner-centred educational theory and professional courses during the teachers' initial teacher training courses. The teachers also seemed to have found it expedient, in response to self-checking instruments, to give what they knew to be pedagogically and theoretically more acceptable responses. The teachers therefore claimed to practise learner-centred pedagogy though this was not totally borne out by observation data. To explain the study findings of common espousal for learner-centred pedagogy and its practice in the classroom, two reasons stand out. As earlier argued, study findings based on participant responses attribute the common espousal for learner-centred pedagogy to pre-existing views and understandings from their initial teacher training. Additionally, and perhaps more significantly, extant literature attributes such support as a reflection of research respondent biases associated with data generated through self-checking instruments like the teaching scenario vignette and the self-checking learner-centred practices gauge used in this research. In this regard, Hoskin (2012) and Highfield (2016) identify

‘social desirability’ and ‘social acquiescence’ biases which are propensities of respondents responding to self-check instruments to want to look good and to agree with what they know is the ideal or progressive. This seemed to have been the case as the four teachers claimed support for learner-centred pedagogy which they knew to be professionally expected as they had been trained and socialised to believe that it was a progressive teaching-learning technique. Further, in explaining the divergence between the espoused and actual teaching, it is important to realise, as suggested by Reese (2013:323-324), that “[p]rogressive ideas are easier to proclaim than act upon”. It is important to note that in this study, as also explained in Sections 1.7.1 3.9.4 and 5.5.2.1, such potential teacher respondent biases were cross-checked and triangulated in subsequent observations of lesson transactions.

In addition to the commonly claimed pro-learner-centred-pedagogy views, the teachers also showed varied individual sense-making dispositions which extant literature argues is to be expected (Spillane *et al.*, 2002; Marz *et al.*, 2013). Mrs Gumbo came out as a reflexive sense maker, while Mr Mtero had his past understanding of learner-centred pedagogy as the basis of his sense-making on the current drive. Mrs Musi’s sense-making was a melange of populist advocacy coupled with an apparent inability to introspect on how and what she was capable of doing given her weak PCK base. This is a finding which Cohen (1990) had similarly reported on his study of Mrs Oublier. On the other hand, in Ms Jowa’s understanding learner-centred pedagogy depended on a strong PCK, which characteristic she demonstrably possessed as was evident in observed lessons and which literature amply supports (Shulman, 1986; Schoenfeld, 2013; Heggart, 2016).

Extant literature offers ample explanations of the finding as to why each teacher held additional different understandings of the learner-centred pedagogy. Each teacher’s individual cognition reflected his or her beliefs and views on teaching and learner-centred pedagogy. From a sense-making cognitive perspective, this shows that different teachers or actors, as Spillane *et al.* (2002) contend, may hold different understandings of policy goals and views on teaching. Thus, Mrs Gumbo exhibited an evolving and progressively nuanced understanding of the learner-centred pedagogy which literature

alludes to inherent reflexive human behaviour in work and out-of-work situations (Schon, 1983; Berliner, 2001; Moon, 2005; Dervent, 2015). Though literature attributes Mrs Musi's effusive support for learner-centred teaching to pro-learner dispositions that come with a long teaching career (Berger *et al.*, 2018; TALIS-OECD, 2009, 2014), it seemed more attributable to one who had joined the bandwagon for learner-centred pedagogy that was reportedly witnessed in the *ZCF 2015-2022* induction workshops in 2017. Suffice to say her actual teaching did not live up to her enthusiasm. Mr Mtero's perception of the learner-centred drive as 'business as usual' can be explained as a case where "teachers actively construct their understanding of policies by interpreting them through the lens of their pre-existing beliefs and practices" (Coburn 2006:344). In so doing, Mr Mtero may have had a superficial understanding of the current drive for learner-centred pedagogy and more so its constructivist thrust as stipulated in flagship documents like the *Curriculum Review Process Narrative Report (2014-2015:79)*, the *Zimbabwe Curriculum Framework (2016)* and *Circular No. 2 of 2017*. These views on how teachers construct their understandings make us, as Coburn (*ibid*) asserts, understand how their decisions and actions are shaped as they enact policy in their schools and classrooms. Ms Jowa's articulated need for a strong PCK as a prerequisite for active and learner-centred is a view that finds support from writers on PCK such as Shulman (1986), Schoenfeld (2013), Carmen (2014), Heggart (2016).

6.3.3 How geography teachers enacted learner-centred instructional approaches

The third study sub-question focused on *how geography teachers enacted learner-centred instructional approaches at middle secondary level in the wake of the ZCF 2015-2022 reforms*. An analysis of transactions in three observed and tape-recorded lessons for each teacher showed *a common use of class question-and-answer teaching technique which however largely failed to live up to the espoused learner-centred sessions*. It is noteworthy that teachers professed such support while at the same admitting insufficient exposure to pro-learner-centred policy stipulations of the new curriculum. The teachers commonly employed the question-and-technique though it was disparately ineffective due to, among other factors, weak PCK, inability to pose appropriate questions, inability to use learner responses to further develop concepts,

failure to provoke learner meaning making and to ask challenging questions in preference to low level questions. These challenges, which writers such as Ball (1988), Kok-Aun Toh *et al.* (2004), Schoenfeld (2013) and Mtitu (2014) also note, varied in severity from teacher to teacher but, when taken together, they help to show how teachers failed to live up to their espoused claims on learner-centred practices.

All was not however lost as there were redeeming features that showed *teachers enacting sessions that approximated the ZCF 2015-2022 learner-centred policy mandate*. The study showed that individual teacher circumstances and attributes such as one's membership of some PLC, participation in staff development courses, a strong TPCK and PCK grounding, a positive attitude to work, ability to create freer classroom environments and Reals, and a supportive school environment contribute to pro-learner-centred pedagogy sense-making and practices among teachers. Prohibitive factors like a heavy daily teaching load, lack of supportive literature and LSM on intended change and a weak PCK, limited meaningful cognitive sense-making for policy enactment. Further, the study findings suggest that teaching is such a complex activity which, as Surgrue, (1997:xi) says, is "...not merely the putting into practice of official policy, but a complex amalgam of various competing and often conflicting factors."

6.4 Conclusions Based on Main Findings

- i) Learner-centred pedagogy messages and signals were collectively and explicitly enunciated in the 12 reviewed *Zimbabwe Curriculum Framework 2015-2022* policy flagship documents. However, local actors' access to and understanding of these documents, their messages and signals were hindered through delayed and non-uniform availability occasioned by a hurried top-down reform roll-out process..
- ii) The participant teachers in the study shared a common understanding and advocacy for learner-centred pedagogy. However, this support did not particularly derive from an in-depth exposure to, or study of, or induction on the *Zimbabwe Curriculum Framework 2015-2022* learner-centred pedagogy policy documents. It was a common espousal for learner-centred pedagogy based on pre-existing

views and understandings from their initial teacher training and possible respondent biases inherent in using self-checking instruments for data generation.

- iii) The participant teachers' common advocacy for learner-centred pedagogy failed the 'test' in observed lessons. The teachers commonly failed to execute their preferred teaching style, that is, the class question and answer method to attain meaningful learner-centred transaction. The findings showed a failure to teach according to an 'espoused theory' of learner-centredness by demonstrating 'a theory-in-use' teacher-centred pedagogy.
- iv) Overall, three teachers, namely Mrs Gumbo, Mr Mtero and Ms Jowa used other potentially learner-centred teaching styles over and above the class question-and-answer approach. In so doing these teachers demonstrated in-built potential on which the external driven learner-centred reform can be developed in ways that are congruent to their own understanding and sense-making. There was, therefore, evidence of teacher pro-learner attributes which could be successfully used as scaffolds for enacting learner-centred pedagogy.

6.5 Recommendations

The following are some the major recommendations emanating from the research findings. These recommendations are presented in line with the main findings of the research which were also organised around the sub-questions that framed the research. In addition, recommendations are also proffered for future research in this area of cognitive sense-making in curriculum policy implementation.

- i) Pertaining to policy stipulations, in which the learner-centred messages were encased, it is recommended that adequate time, material resources and pre-implementation actions such as publicity and inductions are allowed or conducted to avoid a hurried roll-out process such as that which characterised the *ZCF 2015-2022* reforms. This recommended *modus operandi* enables successful enactment of policy based on teachers' informed and transformed values and perspectives which are consonant with the central values of the intended curriculum or instructional reform. Literature is also replete with this invocation that teachers and local policy custodians need to share the same assumptions

and meaning about teaching and learning as those encased by a new instructional policy (Tabulawa, 1998;; Blignaut, 2008; Lefstein, 2008; Musingarabwi & Blignaut, 2015). In the context of the present study, such an approach would have ensured that the well-articulated policies of the *ZCF 2015-2022* reform were fully understood and enacted on the basis of local actors' correct understanding of the policies.

- ii) While the common advocacy for learner-centred pedagogy among participant teachers was welcome, it is recommended that such advocacy be predicated on an in-depth exposure to, or study of, or induction on intended changes such those encased in *the Zimbabwe Curriculum Framework 2015-2022* policy documents. This obviates the need to depend on pre-existing understandings which have been shown, as in the case of Mr Mtero with his 'business as usual' approach, to be superficial and tangential to the constructivist learner-centred pedagogy sense-making undergird the *ZCF 2015-2022* reform.
- iii) Since teachers commonly failed to execute the class question and answer method to attain espoused meaningful learner-centred transactions, it is recommended that existing attributes and practices among teachers, such as pro-learner-centred pedagogy attitudes in this study, be identified and strengthened as scaffolds and tag-on points. These would enable a meaningful enactment of intended instructional policy or learner-centred pedagogy. In the present study, such scaffolds included membership to some PLC and on-going staff development as outlined in points (iv) and (v) respectively below.
- iv) Teacher membership to PLCs, as that of Mrs Gumbo, should be encouraged as it holds promise for collaborative practices in educational change. Geography teachers need to actively become members of PLCs to be in a better position to handle new curriculum and instructional reform. Evidence from the study showed that school heads and other lower level policy custodians working outside the classroom are usually animated by political agendas to push for simpler and quicker processes of change. Research findings suggest that PLC membership

and related activities provide successful, meaningful and measured counterweights to hurried imperatives which teachers experience as arbitrary top-down impositions in educational change. Other teacher attributes like the espoused support for learner-centred pedagogy ought to be used, say in lesson demonstrations during inductions, as tag-on points and scaffolds on the expected pedagogical changes.

- v) Research data show that professional development ought to be encouraged and supported especially during a period of change since it exposes teachers to pro-learner-centred teaching and other progressive practices in education. In the context of the study, submissions by Mrs Gumbo and Mr Mtero who were in staff development courses resonated with findings from in OECD-related studies which confirmed that participation in such courses encouraged teachers to use student-oriented practices and associated activities. External support for reform-related professional development may serve as some kind of incentive for teachers to implement the centrally mandated reforms.
- vi) Policy makers ought to include relevant staff development programmes as part of the reform process. This facilitates the easy with which teachers can also become life-long learners as they are expected to produce life-long learners. Teacher pro-activeness as 'life-long learners' in self-improvement programmes could benefit from external assistance but has to also be part of the teacher's professional ethic.
- vii) It is recommended that the user system encompassing teachers and other local actors, such as low level policy custodians, be involved in all phases of curriculum reform development from conceptualisation to implementation. Incorporation of pre-existing understandings of teachers and other local actors in all phases of curriculum reform development ensures proper alignment between change agents' and users' expectations and meanings on the envisaged change. This augurs well for relevant local actor sense-making and enactment of mandated policy. Implementation of policy should be supported by actions like identification of

existing pro-innovation variables or attributes to enable building on these strengths.

6.6 Integrated Eclectic Cognitive Sense-making Framework and its Application

This work used an inductively *a priori* derived eclectic cognitive sense-making framework based on an integration of classical perspectives on educational change and the cognitive sense-making framework by Spillane *et al.* (2002). Refer to Figure 1.1. The eclectic cognitive sense-making framework was used as a heuristic device or lens to understand how and why geography teachers made pedagogical choices in light of the requirement to adopt a learner-centred pedagogy in their work. This framework proved effective in explaining findings on teachers' views and classroom teaching as highlighted in the following examples.

Sense-making mirrors the understandings, whether prejudiced or not, we bring to a given situation and the actions we then engage in. In this context and at a more general level, some sense-making of policy by teachers is inevitable as long as they engage in teaching in the wake of some new policy requirement. The originally conceptualised eclectic cognitive sense-making framework (Figure 1.1) in this study was an invaluable lens through which understanding of participant teacher actions was possible. More specifically, it was possible to explain findings in this study with reference to this initial eclectic cognitive sense-making framework. For example, the cognitive framework lens explains the sense-making of teachers like Mr Mtero who viewed the learner-centred pedagogy drive as 'business as usual' since, to him, the changes were part of the old familiar way of doing things. In addition, the framework further explains teacher participants' common espousal for learner-centred pedagogy as partly traceable to pre-existing views and understandings from their initial teacher training courses. Yet another case was Mrs Gumbo's efforts at using learner-centred pedagogy which she linked to her membership to a PLC. In the perspective of the cognitive sense-making framework, this was a case of collective sense-making where the teacher developed common definitions, meanings, experiences and practices deriving from a PLC common membership setting.

Despite the applicability of the initial eclectic cognitive sense-making framework, recommendations given in Section 6.5 speak to what needs to be done with respect to possible actions for effective curriculum and instructional implementation. This pertains to issues like how other individual and school level interactions such as participation in staff development or self-improvement schemes and membership to a PLC may enhance sense-making. Refer to recommendations ii, iii, iv and v in Section 6.5. Additionally, the importance of viewing sense-making and hence policy enactment as reflective and iterative processes rather than once-off events seems to have been underplayed in initial version of the eclectic cognitive sense-making framework. This qualitative developmental trajectory evident in Mrs Gumbo's progressively nuanced view of learner-centred pedagogy in sense-making needs emphasis. Put together these issues suggest the necessity to re-conceptualise the cognitive theoretical framework so as to maximise its heuristic potential to guide both the policy makers' and local actors' contribution to effective instructional policy enactment.

It is important to recognise that such re-conceptualisation finds support in extant literature. Stoffels (2004) and Hatch (2002), for example, advise that a research framework may be changed in the course of a study as research evidence allows. Similarly, Grant and Osanloo (2014) talk of an emerging framework for understanding the phenomenon under study. Such dynamic re-conceptualisation speaks to the possible influence of other perspectives in the course of the research. The proposed re-conceptualised framework is represented in Figure 6.1. It is important to state at the outset that the application of this framework is dependent on several assumptions, such as those given at the bottom of the framework, being in place.

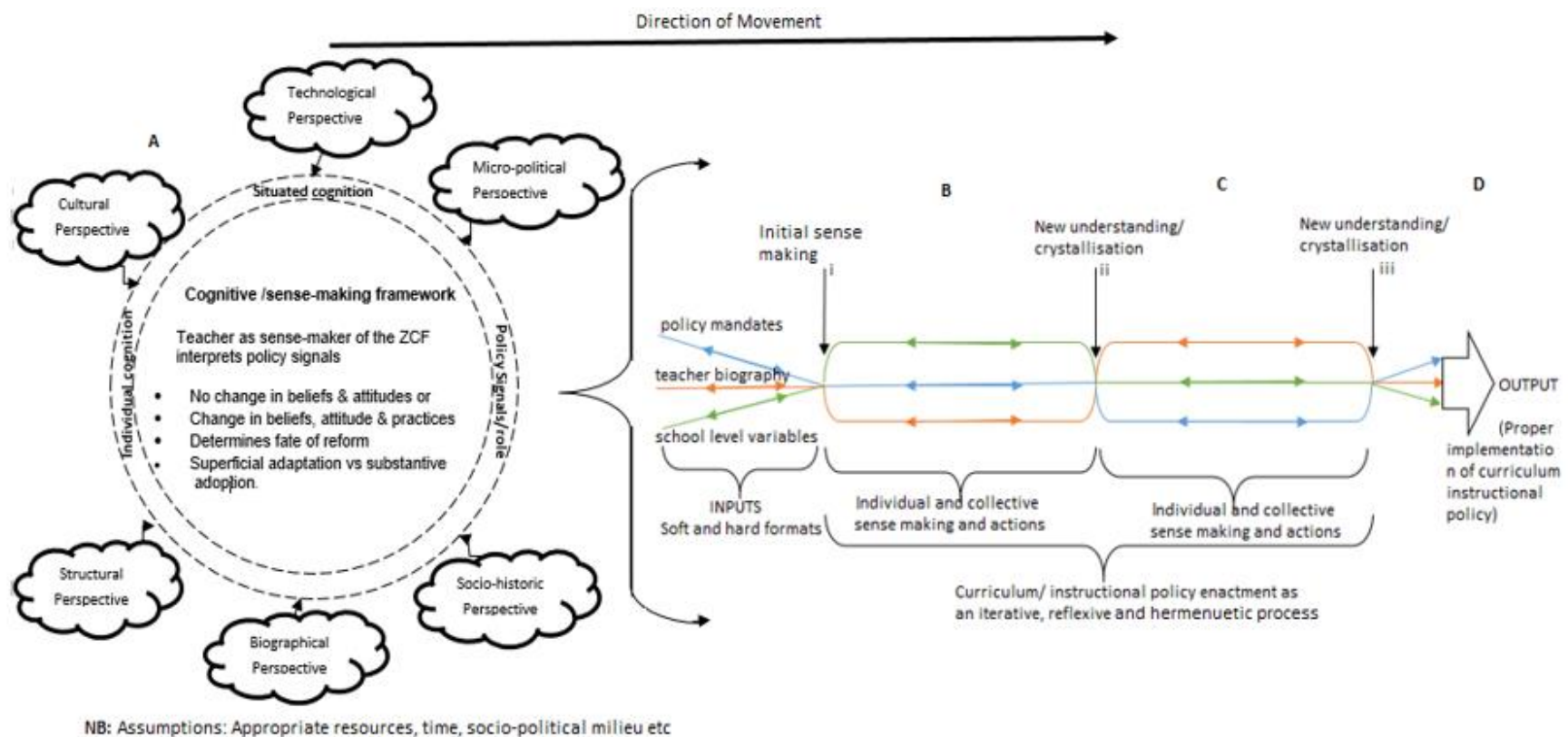


Figure 6.1: Integrated Cognitive Eclectic Sense-making Framework on Curriculum Policy Implementation.

The Integrated Eclectic Cognitive Sense-Making Framework in Figure 6.1 is an integration of an *a priori* version (Figure 1.1) initially developed from an inductive analysis of extant literature and a *posteriori* extension based on an analysis of research findings. With reference to Figure 6.1, the *a priori* part is labelled A while a *posteriori* extension consists of parts B, C and D. The 4 parts of the framework labelled A to D represent broadly sequential phases in the cognitive sense-making and policy enactment process. The sense-making process in part A, as earlier portrayed in Section 1.6, represents an initial stage of how teachers perceive, experience and thus enact externally initiated reform as informed by six classical perspectives on implementation of curriculum change which are reconfigured through Spillane *et al.*'s (2002) cognitive sense-making framework (refer to concentric circles processes). A change to the initial framework is the depiction of the classical perspectives formerly encased in well-defined polygons to being in irregular flare-edged shapes. This change symbolises my growing understanding in course of the research that the processes of change and our understanding of them are tentative and far from being definitive and predictable.

On the framework in Figure 6.1, it can be seen that the initial process of teacher sense-making in Stage A is followed subsequently by Stages B, C and D. The subsequent stages represent essentially the same processes as in A except that they are now depicted as connected lozenges. This essentially depicts that policy implementation is not a once-off event in terms of initial sense-making as in A. In cognitive sense-making language, and as suggested by research findings, policy enactment or implementation has to be an iterative, reflective and hermeneutic process. The main inputs of each level, while still informed by the six set of classical factors, can be collapsed as resulting from three broad input sources, namely structural-cum-policy, school-based and teacher biographic variables. These inputs further reflect historical, technological, contemporary and community influences. The inputs can be in both hard and electronic copy formats. Each lozenge should ideally represent, as indicated, school level interactions, exchanges and processes between and among various players that enhance individual and collective appropriate sense-making and enactment of a given policy. The interactions, as suggested by this

research, include actions like effective induction workshops, self-improvement initiatives, reflexive practice and collegiate exchanges as in PLC membership.

Other school or cluster level structures may be put in place to provide platforms for collaboration, consultation, sharing of challenges, social and professional networking and reflective exploration of solutions. This speaks to the promise, as shown by Mrs Gumbo's PLC membership, which collaborative practice holds for successful reform uptake predicated on appropriate local actor sense-making. In Fullan's (1993) view, which present research findings also point to, teachers' proactivity as 'life-long learners' in self-improvement programmes promotes a work ethic that is conducive to change. In other words, teachers need to be continually trained and reflective of practice to be 'teacher learners' and proactive agents of social transformation. External assistance, as captured in recommendation (vii) above, to such programmes can act as a form of incentive for change.

The framework proposes that, after a given period or set of activities, there is a need for participants to reflect on progress. This is represented by points labelled i, ii, iii and iv in the framework on Figure 6.1. It is proposed that these should be instances of new understanding, sense-making and crystallisation of the best way forward. Such instances are required as they represent the possibility of new horizons of understanding which come with experience, social interaction, reconstructed, deconstructed and negotiated meanings. Sense-making or understanding, in line with the Gadamerian hermeneutics (Gadamer, 1976), thus becomes a continuous process involving new and hopefully improved meaning resulting in improved implementation. By allowing collaborative actions and moments of reflection, this Integrated Eclectic Cognitive Sense-Making Framework reminds us that the teacher's work is more than teaching method, instruction or pedagogy.

Study findings showed explicit, *albeit* espoused pro-learner-centred-pedagogy attributes, some kind of invisible intersubjective indicator of the fact that teachers can, and do want to change. Occasional reflections (points i, ii, iii and iv) included as part of the proposed framework are therefore occasions to attain higher horizons of sense-making that could lead to the realisation of espoused pedagogy in their classes. Thus, the framework proposes that the implementation of planned curriculum change, from stage A to the output at D, is a result of collaborative iterative

actions, sense-making and reflection by all stakeholders in the curriculum change process. The framework is grounded on allowing for enough time for policy enactment. There is concurrence in extant literature and present research findings on the need to avail enough time for instituting adequate measures to equip teachers with knowledge and skills on how to implement changes at classroom level (Fullan, 2000b, Ganon-Shilon & Schechter, 2017, and recommendations i and ii). Allowing time promotes concordance between expected change and teachers' sense-making which is often overlooked in a rush to roll out changes into schools. Only then can the classroom teacher's sense-making on policy be apposite and meaningful.

The Integrated Eclectic Cognitive Sense-Making Framework is a tentative model which should be understood in the context of the limitations of this study. It is subject to improvement and changes. It should also be remembered that such theoretical frameworks are lens through which to gain better understanding of the fate of external reforms once they are placed in schools and classrooms. No single perspective offers a privileged or more correct interpretation of the occurrence of policy change, enactment, portrayal, recommendation and analysis.

6.7 Importance of the Study

The study fills a research lacuna in that its findings confirm, from a Zimbabwean context, that teachers can, depending on their circumstances, positively or negatively contribute to policy enactment through their sense-making. The findings show, as also reflected in cognitive sense-making literature, in cases like those of Mrs Gumbo and Mr Mtero, that how a teacher perceives and interacts with new curricular requirements reflects his or her understanding and interpretation of such instructional policies or innovations (Cohen, 1990; Blenkin *et al.*, 1992; Spillane *et al.*). This research therefore contributes to a growing body of systematic knowledge and scholarship as to how teachers understand and enact external instructional reform in the Zimbabwean context. .

This work has implications for future research and learner-centred pedagogy. The study's findings lay a foundation for similar case studies and research surveys utilising wider samples of teachers, school subjects and school types including primary schools. In proposing a revised Integrated Eclectic Cognitive Sense-Making Framework, the study suggests possible foci and scope for future cognitive sense-

making research in policy implementation that can leverage local actors' delivery of learning for improved learning outcomes. Additionally, this proposed framework underscores how classroom teachers can interrogate and reflect on their practice to make it participatory, learner-centred and authentic to learners' needs, which trajectory is the very *raison d'être* of educational provision.

The study has significance for policy-making and the wider society. With regards to policy-making, the study may be helpful in exposing the complexities of policy enactment by refuting some commonly held myths on processes like effectiveness of inductions and learner-centred-pedagogy. In so doing, the research findings can inform policy makers to prepare for and shape the next seven-year cycle of reform after 2022. Success in enactment of learner-centric methods is increasingly becoming necessary as the mode to impart much needed 21st century skills that encompass self-directed learning, critical thinking and engagement, and reflexive practice, among others. Findings of this study on the teacher challenges and performance in cognitive sense-making on learner-centred instruction are therefore useful pointers and pathways for attaining this desired policy trajectory.

6.8 Possibilities and limits of the study

The findings of this multiple case study of four teachers teaching in four different types of secondary schools in Zimbabwe are not generalisable to other school types or cases. However, descriptions of teacher understandings and observed teaching transactions triangulated through some six data generating techniques ensure methods that are easily replicated and data that were trustworthy. Consequently, the findings of the study can contribute to cognitive sense-making scholarship on the implementation of learner-centred pedagogy curriculum and instructional policy.

Not all contexts and practices of learner-centred pedagogy were studied as illustrated in the following two instances. The present study mostly focused on what the teachers did and said to the exclusion of views by other players like learners. Literature reports on how learners who have not been sufficiently engaged on the need to change or on the nature and meaning of change get disoriented by change (Ruddock, 1986a, Lefstein, 2008). Such learners may seek to preserve their structures of meaning by forcing the teacher to reinstate practices with which they are familiar. In this way, learners are important in determining the fate of instructional

change and therefore could have been afforded a more active role in this research by seeking to know what they felt about classroom transactions in wake of the *ZCF 2015-2022* reforms. The study did not pursue this line which may have shed light on pertinently non-learner-centred practices by teachers like Mrs Musi. The other practice which this research did not fully encompass was that of continuous assessment, an aspect so central to learner-centred pedagogy. The study did not come across practices of continuous assessment like assessment of learning and assessment as learning mainly because the assessment policy changes were still being worked on. There is thus a sense in which the study findings are work in progress where definitive conclusions cannot be made.

6.9 Final Thoughts

The faithful enactment of curriculum and instructional policy is fraught with challenges the world over. The study found that geography teachers were inadequately inducted to enact the learner-centred policy drive. I was left wondering how teachers could enact something they had no full knowledge of. In Biblical language "... if the trumpet gives an uncertain sound, who shall prepare himself to the battle?" (1 Corinthians, 14 vs 8, King James Version). Data from the research suggest the prior existence of learner-centred support and practices which form potential scaffolding points for an authentic teacher-driven realisation of learner-centred pedagogy. As suggested in the proposed Integrated Cognitive Sense-Making Framework, proper local actor sense-making on policy enactment is not a once off event but a process where all players, namely teachers, local policy custodians, high level policy makers or custodians have to constantly and iteratively engage so as to find each and thus work towards mutually agreed implementation of an agreed policy.

At a personal level, the study was an opportunity for me to experience 'the taste of the pudding in the eating' with regards to actual enactment of instructional policy in classrooms. I developed an understanding that policy enactment is best done as a sustained collaborative effort in which the change agent does not load it over the teacher with a 'take it or leave it' attitude. On their part, teachers should positively desire to change, that is, make time for change though this may not always be rewarded. It is a process of meeting halfway. I got an appreciation of sense-making

as a multifaceted phenomenon where one can only follow a particular line of understanding among many understandings held by the many individuals in a classroom. Hence there is apparently no correct sense-making and as Drake (2006:581) has opined “it might seem that the number of meanings constructed about a particular policy (or event) is as limitless as the number of individuals involved in interpreting and implementing the policy”.

With regards to teaching and learning, I experienced a change of perceptions in course of the study. Initially, I was more inclined to view pedagogical approaches as standalone dichotomous styles like learner-centred or teacher-centred approaches. Additionally, I was accustomed to seeing the approaches as oppositional binaries like; learner-centred vs teacher centred, participatory vs non-participatory, active learning vs passive learning, field-based vs classroom-based, whole class vs small group and so forth. The dichotomous view of pedagogical styles is the perspective which mainly undergirds the *ZCF 2015-2022*’s preference for learner-centred pedagogy to the exclusion other approaches. Observing experienced teachers teach and making efforts to have learners understand convinced me that teaching is a complex process which cannot be reduced to whether a particular pedagogic style is followed or not.

Teaching came through as a complex process in which teachers change their practice at any point in the course of a single lesson and in their working life as demanded by the situation. In the classroom, decisions are made every minute if not second. Can one ever begin to appreciate the split-minute decisions from the varied responses and interpretations of individuals in the classroom? I am now inclined, in line with Schuh’s (2004) standpoint, to see pedagogical styles or teaching methods as occupying different points along a dynamic continuum. Such a continuum perspective acknowledges the primacy of a teacher’s professional judgement concerning the situated nature of teaching and learning. Resultantly, as one studies on a teacher’s sense-making on learner-centred pedagogy care should be taken not to simplify a complex process such as teaching and learning informed by even more complex epistemological and pedagogical standpoints such as constructivism.

6.10 Summary of the Chapter

This chapter provided a summary of the study's main findings with the related conclusions. The main recommendations emanating from the findings were also highlighted. The chapter proposed a *posteriori* Integrated Eclectic Cognitive Sense-Making Framework on the basis of research recommendations which built on to the *a priori* eclectic cognitive sense-making framework initially formulated at the start of this study. The Integrated Eclectic Cognitive Sense-Making Framework can maximise the heuristic potential of cognitive sense-making and guide both policy makers and local actors to effective instructional policy enactment through an iterative, reflective and hermeneutic trajectory to the process. The chapter also discussed significance and limitations of the research. Lastly, I described what the research meant to me as a researcher and educator.

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APPENDICES

Appendix 1: Editor's Note on Language Editing of Thesis

**HUMAN RESOURCES
RESEARCH CENTRE**

Human Resources Research Centre
P.O.Box MP167, Mount Pleasant, Harare,
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FACULTY OF EDUCATION

UNIVERSITY OF ZIMBABWE

30 June 2020

To whom it may concern

This serves to certify that the PhD document titled: ***Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwean Curriculum Framework 2015–2022*** by **Manasa Munashe Madondo** (Student No. **2016144244**), was edited by an experienced editor/proofreader. I have edited the document and advised the author to effect various changes including the mechanics of language, formatting of text and referencing style.

I am of the view that the quality of the documents is of generally accepted academic standards.

Thank you.



Thomas W. Gama
(Editor)

Appendix 2: Turnitin Similarity Index Report and Digital Receipt

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CHAPTER 1

THE PROBLEM AND ITS SETTING

1.1 Introduction and Background to the Study

The faithful enactment of educational reforms in the spirit intended by education policy makers and curriculum reformers has exercised the minds of curriculumists for some time, at least since the 1990s when widespread curriculum planning and development became common practice. This is so because such enactment invariably tends to deviate from the intentions of policy makers or the change agents. History shows that many, Furlan and Portniet (1977) would say most, curriculum projects have not been enacted in the way curriculum developers had planned. The paradox in such acts of infidelity or non-adherence to intended innovative proposals is that practitioners, such as classroom teachers, may not even have been aware that they were violating the developers' intentions (Cotton, 1980; Spillane & Zeitz, 1989; Ouseberry, Brannigan, Falco & Hansen, 2002; Altschier, 2005; Priestley & Drew, 2017).

The central question to which this state of affairs draws attention is: Why is it that teachers, in the light of a new curriculum innovation or instructional policy, show infidelity to the initiative by either continuing with hitherto-existent practices or subverting the reform to enact it in ways contrary to original intentions? Policy makers and curriculum reformers normally set out their stipulations on paper without much consideration of

Appendix 3: Ethical Clearance Letter



Faculty of Education

17-Oct-
2017

Dear **Mr Manasa Madondo**

Ethics Clearance: **Curriculum Reform and Classroom Practice: teaching geography in the Zimbabwe Curriculum Framework 2015–2022**

Principal Investigator: **Mr Manasa Madondo**

Department: **Curriculum Studies (Bloemfontein Campus)**

APPLICATION APPROVED

With reference to your application for ethical clearance with the Faculty of Education, I am pleased to inform you on behalf of the Ethics Board of the faculty that you have been granted ethical clearance for your research.

Your ethical clearance number, to be used in all correspondence is: **UFS-HSD2017/1086**

This ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the ethics office to ensure we are kept up to date with your progress and any ethical implications that may arise.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours faithfully

Prof. MM Mokhele
Chairperson: Ethics
Committee

**Education Ethics
Committee Office
of the Dean:**

Education

T: +27 (0)51 401 9683 | F: +27 (0)86 546 1113 | E: NkoaneMM@ufs.ac.za
Winkie Direko Building | P.O. Box/Posbus 339 | Bloemfontein 9300 |
South Africa www.ufs.ac.za



Appendix 4: Request to Permanent Secretary for Permission to Conduct Research in the Ministry of Primary and Secondary Education (MoPSE) Selected Schools

University of Zimbabwe,
Department of Curriculum & Arts Education,
P.O. Box MP 167,
Mt Pleasant,
HARARE
.....

The Permanent Secretary,
Ministry of Primary and Secondary Education,
P.O Box CY 121,
HARARE

Dear Madam

Re: Request for Permission to Conduct Research

I hereby request permission to conduct research in selected secondary schools within the Harare and Mashonaland East Provinces of your ministry and with selected Curriculum Development and Technical Services (CDTS) personnel. The details are as follows:

My name is Manasa Munashe Madondo, and I am a lecturer in Curriculum Theory in the Department of Curriculum and Arts Education at the University of Zimbabwe. I am presently studying for a Doctor of Philosophy (PhD) degree with the University of the Free State (UFS). As part of my degree programme, I am required to conduct research on an aspect of interest with a view to making a contribution to our knowledge and understanding of the issues under study. The title of my thesis is:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

Justification of the Study

Zimbabwe is currently in the throes of implementing its first ever comprehensive curriculum reforms since independence in 1980, as encased in the *Zimbabwe Curriculum Framework (ZCF) 2015-2022*. A flagship reform, in this regard, is the need to adopt learner-centred instructional approaches in all learning areas and at all levels of schooling. Inconsistent and unfaithful enactment of educational reforms, contrary to the intentions of policymakers and curriculum reformers, has been the bane of curriculum innovations not only in Zimbabwe but the world over. Teachers, behind the closed door of the classroom, may accept and correctly apply, or selectively adopt and adapt, or outright reject the reformers' intentions (Cohen, 1990; Lefstein, 2008; Stanley, Marion & Murphy, 2012). Literature suggests that successful implementation is possible when teachers share the same assumptions and meaning about teaching and learning as those intended by the new instructional policy (Blenkin, Edwards & Kelly, 1992; Spillane, Reiser & Reimer, 2002). The reverse also seems to be true.

In the light of all this, the present study examines how geography teachers make sense of and enact the *ZCF 2015-2022* learner-centred instructional policy at form 3 level. Thus, the study seeks to communicate and report on the relationship between instructional policy and actual practice in the classroom. The study has potential to contribute to knowledge and practice of successful curriculum implementation. The findings can serve as useful formative evaluation data needed in the current and next seven-year curriculum review cycle after 2022.

Scope of study, methodology and sample

The study is a multiple case study examining specific cases on how six purposively selected geography teachers enact learner-centred activities and tasks in their classrooms. The study involves:

1. The use of self-reflective journaling whereby each of the six participant teachers reflects, in writing, on his or her experiences in implementing the new and updated curriculum with particular reference to the use of learner-centred pedagogy in geography teaching and learning. In addition, the teachers are to respond to a vignette or a hypothetical situation related to learner-centred teaching and also to complete a simple checklist on the learner-centred instructional practices.
2. Observing and audio-recording three geography lessons conducted by each of the six teachers in a way that does not disturb the classes in order to find out how and if they implement learner-centred pedagogy. The classroom observations will be arranged based on the teachers' timetables and as cleared with the school heads.
3. Undertaking six post-lesson-observations interviews, one per each teacher, at a time convenient to the participant geography teacher for purposes of understanding and probing his/her understanding and implementation of learner-centred pedagogy. The interviews are guided by data from the observed lessons and are expected to last no more than 60 minutes per session.
4. Undertaking interviews with selected custodians and implementers of the new curriculum policy namely; the senior personnel of CDTS division, District Education Inspectors and the School Heads. This helps in understanding the policy context within which geography is being taught at form 3 level.
5. Document analysis through a desk study of the flagship documents to do with the *ZCF 2015-2022* reforms such as relevant educational circulars, ministerial statements and the new curriculum and syllabus documents, so as to have the correct policy milieu guiding the implementation of the new curriculum.

I include with this application the research instruments that will be used for data generation. A total of six schools will be used from the list below, the other schools (fall-backs) will be used in case participants withdraw or any challenge is encountered. The list of purposively selected schools is as follows:

•First choice schools: and both in XXXXXXXX Rural District, (Mashonaland East Province), ... and all in Harare Metropolitan province. The schools represent the main types of schools in Zimbabwe and are easily accessible to the researcher.

•Fall back schools: and both in District (Mashonaland East Province), and and in Harare Metropolitan Province.

I undertake to observe confidentiality and to protect participants from physical and/or psychological harm. No names of the schools and/or persons shall be used in any reports of the research. Pseudonyms will be used instead. All participants will be asked to participate voluntarily in the study and may withdraw at any time should they so wish.

Upon completion of the study, I undertake to provide MoPSE with a copy of the research report and to share my findings with policy makers, curriculum practitioners, researchers and other stakeholders.

If I am granted permission to undertake the research, I can then seek permission from the relevant MoPSE, provincial, district and school authorities and consent to participate from selected CDTS, district inspectorate and school head officials, form three geography teachers, parents and guardians as necessary.

I attach a letter of recommendation from my research supervisor regarding the study and the progress I have made to date. If you need any further information and/or have suggestions, please contact me and/or my research supervisor Professor L. C. Jita at E-mail address / E-posadres jitalc@ufs.ac.za or +27 51 401 7522, at University of the Free State.

I hope my request will meet with your favourable consideration.

Yours sincerely,

Manasa Munashe Madondo,

Student UFS student number: 2016144244. Zimbabwean ID No. 22-0282782 Y 71, Cell: +263 712516659 (E-mail: manasamadondo@gmail.com)

Appendix 5: Ministry of Primary and Secondary Education Permission to Conduct Research in Schools

Tel: 253084 Telegraphic Address: "EDUCATION" Fax: 797110	 ZIMBABWE	Re: C/426/3 Minister of Primary and Secondary Education P.O. Box CY 121 Causeway Zimbabwe 24 October 2017

Manasa Munashe Madondo
University of Zimbabwe
P.O.Box MP 167
Mt Pleasant
Harare

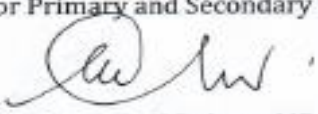
RE: PERMISSION TO CARRY OUT RESEARCH

Reference is made to your application to carry out a research in the above mentioned schools in Harare Metropolitan and Mashonaland East Provinces on the research title:

"CURRICULUM REFORM AND CLASSROOM PRACTICE: TEACHING GEOGRAPHY IN THE ZIMBABWEAN CURRICULUM FRAMEWORK, 2015-2022"

Permission is hereby granted. However, you are required to liaise with the Provincial Education Director Harare Metropolitan and Mashonaland East Provinces, who is responsible for the schools which you want to involve in your research. You should ensure that your research work does not disrupt the normal operations of the school. Where student are involved, parental consent is required

You are required to provide a copy of your final report to the Secretary for Primary and Secondary Education.


Hon. Dr. L. D. K. Dokora, MP
MINISTER OF PRIMARY AND SECONDARY EDUCATION

CC: Secretary for MPE, Dr. S. J. Dube





Appendix 6: Permission to Conduct Research in Province 1

All communications should be addressed to
"The Provincial Education Director"

Telephone : 339334

E-mail :

hararemetropolitanprovince@gmail.com



ZIMBABWE

Ministry of Primary and Secondary Education
Harare Provincial Education Office
P. O. Box CY 1343
Causeway
Zimbabwe

07/11/2017

Manasa Munashe Madondo
University of Zimbabwe
P.O. Box MP 167
Mt Pleasant
Harare

RE: PERMISSION TO CARRY OUT RESEARCH IN SOME SELECTED SCHOOLS

At [redacted]
[redacted]
Harare
Metropolitan Province: Curriculum reform
and classroom practice: Teaching
Geography in the Zimbabwean curriculum
Framework, 2015-2022.

Reference is made to the letter dated 24/10/2017

Please be advised that the Provincial Education Director grants you authority to carry out your research on the above topic. You are required to supply Provincial Office with a copy of your research findings.

Profr

ppmate-U R (CA)

FOR: PROVINCIAL EDUCATION DIRECTOR
HARARE METROPOLITAN PROVINCE

MIN. OF PRY. & SEC. EDUCATION
DISCIPLINE SECTION
HARARE PROVINCE
07 NOV 2017

P.O. BOX CY 1343, CAUSEWAY
TEL: 04-792671/7178314

MIN OF PRY & SEC EDUCATION
DISTRICT SCHOOLS INSPECTOR
WARREN PARK/MABELREIGN DISTRICT
13 NOV 2017
HARARE PROVINCE
P.O. BOX CY 1343, CAUSEWAY
HARARE

MIN. OF PRY. & SEC. EDUCATION
MBARE HATFIELD DISTRICT
DISTRICT EDUCATION OFFICER
07 NOV 2017
P.O. BOX CY 1343, CAUSEWAY
ZIMBABWE

MIN. OF PRY. SEC. EDUCATION
NORTHERN CENTRAL DISTRICT
DISTRICT EDUCATION OFFICER
07 NOV 2017
P.O. BOX CY 1343, CAUSEWAY
ZIMBABWE TEL: 04-303683

Appendix 7: Permission to Conduct Research in Province 2

Reference: P/M.M. Madondo

E. C. No.: N/A

All communications should be addressed to
"The Provincial Education Director
Mashonaland East Province"
Telephone: 0279-24811/4 and 24792
Telex:
Fax: 079-24791
E-mail: moesapedme@hotmail.com



Ministry of Primary & Secondary Education
Mashonaland East Province
P.O. Box 752
Marondera
Zimbabwe



Mr./Mrs./Miss Manasa Munashe Madondo
University of Zimbabwe.
P.O. Box 161
Nt Pleasant Harare.

PERMISSION TO CARRY OUT RESEARCH IN SCHOOL FOR EDUCATIONAL
PURPOSES: MR/MRS/MSS M. M. MADONDO E. C. NO. HA
LECTURER UZ. SCHOOL
STUDENT I. D. TEACHER AT

Reference is made to your minute dated 24/10/17
Please be advised that permission has been granted that you carry out research work in our schools. You are accordingly being asked to furnish the Ministry with information about your findings so that we share the knowledge for the benefit of the system as well as our nation at large.

We wish you all the best and hope to hear from you after completing your project work.

I. Boboto
HUMAN RESOURCES OFFICER - DISCIPLINE
FOR PROVINCIAL EDUCATION DIRECTOR
MASHONALAND EAST PROVINCE
/mm



Appendix 8: Senior Personnel at CDTS Letter of Invitation to Participate in Research

University of Zimbabwe,
Department of Curriculum & Arts Education,
P.O. Box MP 167,
Mt Pleasant, HARARE.

.....

.....,
Curriculum Development and Technical Services (CDTS),
P.O. Box MP 133,
Mt Pleasant,
HARARE

Dear Sir/Madam,

Re: Invitation to participate in the curriculum policy custodian research interview.

My name is Manasa Munashe Madondo, and I am a lecturer in Curriculum Theory in the Department of Curriculum and Arts Education at the University of Zimbabwe. I am presently studying for a Doctor of Philosophy (PhD) degree with the University of the Free State (UFS). As part of my degree programme, I am required to conduct research on an aspect of interest with a view to making a contribution to our knowledge and understanding of the issues under study. The title of my thesis is: *Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022*.

The study examines how geography teachers make sense of and enact the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* learner-centred instructional policy at form 3 level as part of the new and updated curriculum. The study seeks to communicate and report on the relationship between instructional policy and actual practice in the classroom. The study has potential to contribute to knowledge and practice of successful curriculum implementation. The findings can serve as useful formative evaluation data needed in the current and next seven-year curriculum review cycle after 2022.

In this regard, I am kindly inviting you or a senior official whom you may delegate to participate in an interview as a custodian and implementer of the new curriculum policy, the *ZCF 2015-2022* and its associated curricular documents and syllabi. Information from the curriculum designers, overseers and leading change agents as represented by the CDTS would help in giving the correct policy context in which the *ZCF 2015-2022* reform is being implemented generally, and in which geography is being taught at form 3 particularly. The interview should take no more than forty-five minutes.

I undertake to observe confidentiality and to protect participants from physical and/or psychological harm. Participants will be asked to voluntarily take part in the study and may withdraw at any time should they so wish. No names of the district, school

and participants shall be used in any reports of the research. Pseudonyms will be used instead. I will provide a draft report on the interview so that you can verify my interpretations and claims.

Upon completion of the study, I undertake to provide the Ministry of Primary and Secondary Education (MoPSE) with a copy of the research report and to share my findings with policy makers, curriculum planners and designers, local level policy implementers, curriculum practitioners and researchers.

I hope my request will meet with your favourable consideration.

Yours sincerely,

Manasa Munashe Madondo, Cell: +263 712516659 (E-mail: manasamadondo@gmail.com)

If you agree to participate in the curriculum policy custodian interview please sign the accompanying consent form.

CURRICULUM POLICY CUSTODIAN CONSENT FORM – CDTS DIRECTOR

If you agree to participate in the study entitled:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

Please complete the consent form below.

- I hereby give free and informed consent to participate in the abovementioned research study.
- I understand what the study is about, why I am participating and what the risks and benefits are.
- I give the researcher permission to use an audio-recording device.
- I give the researcher permission to make use of the data gathered from my participation,

subject to the stipulations he has indicated in the above letter.

Director's

Name.....

CDTS Director's Signature: Date:
.....

Researcher's Signature: Date:
.....

Appendix 9: Request to District Schools Inspector for Permission to Conduct Research and Invitation to Participate in Research

University of Zimbabwe,
Department of Curriculum & Arts Education,
P.O. Box MP 167,
Mt Pleasant, HARARE.

.....
The District Education Inspector,
Ministry of Primary and Secondary Education,
.....
.....

Dear Sir/Madam,

Re: **Request for permission to conduct research in**
..... **District of **
Province and Invitation to participate in research interview.

I write to request permission to conduct research in selected secondary schools in your district. In addition, I kindly invite you to participate in an interview related the aforesaid research.

My name is Manasa Munashe Madondo, and I am a lecturer in Curriculum Theory in the Department of Curriculum and Arts Education at the University of Zimbabwe. I am presently studying for a Doctor of Philosophy (PhD) degree with the University of the Free State (UFS). As part of my degree programme, I am required to conduct research on an aspect of interest with a view to making a contribution to our knowledge and understanding of the issues under study. The title of my thesis is:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

The study examines how geography teachers make sense of and enact the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* learner-centred instructional policy at form 3 and 4 level as part of the new and updated curriculum. The study seeks to communicate and report on the relationship between instructional policy and actual practice in the classroom.

In this regard, I apply for permission to conduct research on the use of learner-centred approaches in teaching and learning of form 3 and 4 geography, as required by the new curriculum, at
..... Secondary
School(s).

Apart from observing three lessons taught by a selected geography teacher and interviewing the concerned teacher, the study seeks to interview the District Inspector and the school head since these are the local overseers of the *ZCF* reform implementation process. The interview should take no more than forty-five minutes. In this regard, I am also kindly inviting you to participate in an interview as a custodian and implementer of the new curriculum policy, the *ZCF 2015-2022* and its associated

curricular documents. This helps in understanding the context in which geography is being taught at form 3 and 4 levels.

I undertake to observe confidentiality and to protect participants from physical and/or psychological harm. I request you to voluntarily take part in the study. You may withdraw at any time should you so wish. No names of the district, school and participants shall be used in any reports of the research. Pseudonyms will be used instead. I will provide a draft report on the interview so that you can verify my interpretations and claims.

Upon completion of the study, I undertake to provide the Ministry of Primary and Secondary Education (MoPSE) with a copy of the research report and to share my findings with policy makers, local level policy implementers, curriculum practitioners and researchers.

I hope my request will meet with your favourable consideration.

Yours sincerely,

Manasa Munashe Madondo, Cell: +263 712516659 (E-mail: manasamadondo@gmail.com)

If you agree to participate in the policy custodian interview please sign the accompanying consent form.

CURRICULUM POLICY CUSTODIAN INTERVIEW CONSENT FORM – DISTRICT SCHOOLS INSPECTOR

If you agree to participate in the study entitled:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

Please complete the consent form below.

- I hereby give free and informed consent to participate in the abovementioned research study.
- I understand what the study is about, why I am participating and what the risks and benefits are.
- I give the researcher permission to use an audio-recording device. (Yes/No)
- I give the researcher permission to make use of the data gathered from my participation,

subject to the stipulations he has indicated in the above letter.

Name of District
Province.....

District Inspector's Name

District Inspector's Signature: Date:

.....
Researcher's Signature: Date:

.....

Appendix 10: Request to School Head for Permission to Conduct Research in the School and Invitation to Participate in Research Interview

University of Zimbabwe,
Department of Curriculum & Arts Education,
P.O. Box MP 167,
Mt Pleasant,
HARARE.

.....
The School Head,
.....

Dear Sir/Madam

Re: Invitation to Participate in Research Interview and Request for Permission to Conduct Research in your School.

I hereby invite you to participate in a research interview. In addition, I request permission to conduct research with a selected form 3 or 4 geography teacher in your school.

My name is Manasa Munashe Madondo, and I am a lecturer in Curriculum Theory in the Department of Curriculum and Arts Education at the University of Zimbabwe. I am presently studying for a Doctor of Philosophy (PhD) degree with the University of the Free State (UFS). As part of my degree programme, I am required to conduct research on an aspect of interest with a view to making a contribution to our knowledge and understanding of the issues under study. The title of my thesis is:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

The study examines how geography teachers make sense of and enact the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* learner-centred instructional policy at form 3 or 4 levels as part of the new or updated curriculum. The study seeks to communicate and report on the relationship between instructional policy and actual practice in the classroom.

The study involves:

1. Interviewing the school head as the local overseer of curriculum reform policy. As head of a school in which this research is being carried out, if you so permit, I am kindly inviting you to participate in an interview as a custodian and implementer of the new curriculum policy, the *ZCF 2015-2022* and its associated curricular documents. This helps in building the context in which geography is being taught at form 3 or 4. The interview should take no more than forty-five minutes. I will also seek your guidance on the choice of a form 3 or 4 teacher participant.
2. The use of self-reflective journaling whereby the participant teacher reflects, in writing, on his or her experiences in implementing the new curriculum with particular reference to the use of learner-centred pedagogy in geography teaching and learning. In addition, the teacher is to respond to a vignette or a hypothetical situation related to learner-centred teaching and also to complete a simple checklist on the learner-centred instructional practices.
3. Observing and audio-recording three of the selected teachers' geography lessons, in a way that does not disturb the classes, so as to find out how and if he/she implements learner-centred pedagogy. The classroom observations will be arranged based on teacher's timetable and with your concurrence as head of the institution
4. A post-lesson-observations interview, at a time convenient to the participant geography teacher, for purposes of understanding and probing his/her

understanding and implementation of learner-centred pedagogy. The interview is to be guided by data from the observed lessons and is expected to last no more than 60 minutes.

5. Document analysis through a desk study of the flagship documents to do with the ZCF 2015-2022 reforms such as; relevant educational circulars, ministerial statements and the updated curriculum, syllabus documents and any relevant school level documents. This helps in portraying the policy milieu guiding the enactment of learner-centred pedagogy stipulated by the new curriculum.

I undertake to observe confidentiality and to protect participants from physical and/or psychological harm. Participants will be asked to voluntarily take part in the study and may withdraw at any time should they so wish. No names of the school and participants shall be used in any reports of the research. Pseudonyms will be used instead. I will provide a draft report on the interview so that you can verify my interpretations and claims.

Upon completion of the study, I undertake to provide the Ministry of Primary and Secondary Education (MoPSE) with a copy of the research report and to share my findings with policy makers, local level policy implementers, curriculum practitioners and researchers.

If you grant me permission to undertake the research, I can then seek 'consent to participate' from the selected form three geography teacher.

I hope my request will meet with your favourable consideration.

Yours sincerely,

Manasa Munashe Madondo, Cell: +263 712516659 (E-mail: manasamadondo@gmail.com)

If you agree to participate in the research interview please sign the accompanying consent form.

SCHOOL HEAD PARTICIPANT CONSENT FORM

If you agree to participate in the study entitled:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

Please complete the consent form below.

- I hereby give free and informed consent to participate in the abovementioned research study.
- I understand what the study is about, why I am participating and what the risks and benefits are.
- I give the researcher permission to use an audio-recording device. (Yes/No)
- I give the researcher permission to make use of the data gathered from my participation, subject to the stipulations he has indicated in the above letter.

Name of School: Province: District

School Head's Name: School Head's Signature: Date:

Researcher's Signature: Date:

Appendix 11: Invitation to Form 3 or 4 Geography Teachers to Participate in a Research Study

University of Zimbabwe,
Department of Curriculum & Arts Education,
P.O. Box MP 167,
Mt Pleasant, HARARE.

.....
Mr/Mrs/Ms/Dr
.....

Re: Invitation to Participate in a Research Study –Form 3 or 4 Geography Teacher

Dear Sir/Madam

My name is Manasa Munashe Madondo. I am presently studying for a PhD degree with the University of the Free State (UFS). As part of my degree programme, I am conducting research for a thesis is entitled:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

The study examines how geography teachers make sense of and enact the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* learner-centred instructional policy at form 3 or 4 levels as part of the new curriculum. The study seeks to communicate and report on the relationship between instructional policy and actual practice in the classroom.

You have been identified as one of the form 3 or 4 geography teachers whose teaching and classroom practices I can observe and audio-record so as to learn and understand how teachers implement the requirements of the new geography syllabus at middle secondary level. The study has potential to benefit geography teaching and learning by contributing to knowledge of practices on which successful curriculum implementation, based on inputs and views of the ‘chalk face’ implementers of the curriculum like you, can be realised.

The study involves:

1. The use of self-reflective journaling whereby you as the participant teacher reflects, in writing, on your own experiences in implementing the updated curriculum with particular reference to the use of learner-centred approaches in geography teaching and learning. This would be throughout the term and is on the basis of some given guidelines. In addition, you will also be asked to respond, through a one page account, to a vignette or a hypothetical situation related to learner-centred teaching and to complete a simple, 10-15 minute, checklist on the learner-centred instructional practices.
2. Observing and audio-recording three of your geography lessons in a way that does not disturb the classes so as to find out how you implement the new geography

syllabus. The classroom observations will be arranged on the basis on your timetable and with the concurrence of school authorities.

3. Carrying out a post-lesson-observations interview on the lesson transactions at a time convenient to you. The interview is expected to last no more than 60 minutes and with your permission, an audio recording device will be used to capture this post-observation interview.

4. Other aspects of the study, which will not require your input, involve document analysis of important documents to do with the *ZCF 2015-2022* reforms and interviewing selected reform policy custodians and implementers such school heads, the district inspectorate and Curriculum Development and Technical Services personnel .

I undertake to observe confidentiality and to protect participants from physical and/or psychological harm. There are no foreseeable risks for taking part in the study. Participation in the study is entirely voluntary and you may withdraw at any time should you wish to do so. No names of the district, school, teacher and learners shall be used in any reports of the research. Pseudonyms will be used instead. A draft report on the observed lessons and the interview will be availed to you as a participating teacher so that you can authenticate that it captures what exactly transpired.

Upon completion of the study, I undertake to provide the Ministry of Primary and Secondary Education (MoPSE) with a copy of the research report and to share my findings with geography teachers, policy makers, curriculum planners and designers, local level policy implementers, curriculum practitioners, researchers and other stakeholders.

I hope my request will meet with your favourable consideration.

Yours sincerely,

Manasa Munashe Madondo, Cell: +263 712516659 (E-mail: manasamadondo@gmail.com)

If you agree to participate please sign the accompanying consent form.

TEACHER PARTICIPANT CONSENT FORM

If you agree to participate in the study entitled:

Curriculum Reform and Classroom Practice: Teaching Geography in the Zimbabwe Curriculum Framework 2015–2022.

Please complete the consent form below.

- I hereby give free and informed consent to participate in the abovementioned research study.
- I understand what the study is about, why I am participating and what the risks and benefits are.

- I give the researcher permission to use an audio-recording device. (Yes/No)
- I give the researcher permission to make use of the data gathered from my participation, subject to the stipulations he has indicated in the above letter.

Participant geography teacher's Name:

Participant geography teacher's Signature: Date:

Researcher's Signature: Date:

Appendix 12: Guide on Teacher Self-Reflective Journal Writing

Purpose and instruction

My name is Manasa Munashe Madondo and I am with the Department of Curriculum and Arts Education at the University of Zimbabwe. I am currently pursuing Doctor of Philosophy (PhD) studies with the University of Free State (UFS) on the teaching and learning of the new or updated geography curriculum at form 3 level. You have been identified as a key participant for my study. As part of generating data for the study, I am using a self-reflective journal technique. The main idea behind the self-reflective journal is to have a personal record of your experiences in teaching the new geography syllabus at form 3 level with particular reference to the use of learner-centred teaching approaches. I kindly invite you to record your experiences in the notebook provided on the issues identified below. However, apart from the identified issues, feel free to comment on any aspect you consider important to the implementation of the new curriculum. This self-reflective journal writing should be throughout the three months of the term and for the duration of the study. Please feel free to write your responses as either just points or as continuous prose.

A) Retrospective reflection: Initial encounters with the new curriculum

- 1) Describe your initial reactions and feelings when you knew that you had to teach the new geography syllabus at form 3 or 4? Why did you feel that way?
- 2) What departures and new things do the new geography syllabus necessitate from your established content or knowledge, teaching and learning approaches, values and beliefs as a teacher? Explain your response.
- 3) What were your reactions and feelings on the need to use learner-centred teaching in the new geography syllabus?
- 4) Has there been any staff development, induction or coaching to prepare you in teaching the new geography syllabus? Please explain.

B) Continued implementation: Beliefs and actions in teaching form 3 or 4 geography.

- 1) How have misalignments, if any, between your existing ideas on teaching geography and the new geography syllabus been addressed?
- 2) Since you began teaching the new geography syllabus can you say your perception towards this innovation has changed? Explain your response.
- 3) Describe the kinds of personal initiatives and other support you have taken or received to effectively use a learner-centred pedagogy in your form 3 or 4 geography classes?
- 4) What conditions or arrangements, if any, enable you to implement learner-centred teaching in form 3 or 4 geography classes?
- 5) Are your lessons becoming more learner-centred in contrast to being teacher dominated as a result of teaching the new or updated geography syllabus? Explain your response.

- 6) What factors, conditions or arrangements, if any, prevent you from implementing learner-centred teaching in form 3 or 4 geography classes? How have you gone about resolving or tackling these?

C) Free narrative (maximum two pages)

- 1) Jot down a few notes describing your reactions, feelings, thoughts and experiences of implementing learner-centred pedagogy with reference to **any three non-consecutive or well-spaced lessons** which you have taught. Indicate lesson titles and dates.
- 2) Also feel free to comment on any aspect you consider important to the implementation of the new curriculum.

Thank you very much for your valuable contribution and the time you have spared to engage in self-reflective writing about teaching the new geography curriculum.

Appendix 13: Vignette for Form 3 and 4 Teachers on Approaches in Teaching Geography

Introduction

My name is Manasa Munashe Madondo and I am with the Department of Curriculum and Arts Education at the University of Zimbabwe. I am currently pursuing Doctor of Philosophy (PhD) studies with the University of the Free State (UFS) on the teaching and learning of the new or updated geography curriculum at form 3 or 4 level. You have been identified as a key participant for my study. As part of generating data for the study, I am using a vignette or life-experience story technique. Please kindly read through the hypothetical stories below on the conduct of two form 3 geography lessons by two teachers in separate classrooms at a school. Kindly have a short, one page long, real-life-based response to the request at the end.

What Happened in Two Rooms?

One morning, near mid-term, many teenagers are arriving at their school. Among the arrivals are Lameck, Susan, Thulani and Jennifer who are already entering Room 1 and Helen, Pindurai, Busi and John who are making their way towards Room 2. Both rooms are equipped with a variety of teaching-learning materials.

The learners in Room 1 have a very good idea what to expect because their method of learning has not varied since they first came to this room. Today proves to be no exception. Lameck continues to work at his own pace, through a learning package on *Agriculture and land reform in Zimbabwe*. Susan is still grappling with a package on *Mapwork and Geographical Information Systems*. Before long she loses interest and pretends to be working when in actual fact, she lets her mind wander. She asks herself why she bothers to come when it is possible to do so little and when so much of that little could be accomplished elsewhere. Meanwhile the teacher has dispensed a new learning package on *Environmental Management* to Jennifer, who is soon 'tearing' into the package. Jennifer is not all that interested either, but she aims to complete the series of packages before Thulani. By means of this private competition, she adds a little spice to an otherwise tedious task.

After working on his own for a while, Lameck experiences some difficulty. He would like to discuss farming with his neighbours but, as Susan is toying with *Geographical Information Systems* and Jennifer is ploughing through *Environmental Management*, he decides it would be rather futile. So, he waits until the teacher is free and manages to secure a few minutes' guidance before he re-joins the other learners, scribbling away at their self-paced tasks.

An hour or so later there is a short break during which there are a few desultory remarks about last night's African Cup of Nations soccer match and on latest jokes on the social media platforms. In one of the silent pauses Lameck at first thinks it might be fun to organise a mid-term practical joke, but he soon realises that, with so little group rapport, it is not likely to be successful and he abandons the idea. Inwardly sighing a little, he returns to his learning package knowing that when it is completed, he will have many more to come.

Returning to earlier in the day, Helen and her friends have just settled in Room 2. While they have a good idea about the topic they will be studying, often they do not know the exact form it will take. Sometimes their teacher talks with them, making use

of any appropriate teaching-learning materials, and then sets them some relevant problems to solve. Occasionally, they may be involved in a role-playing activity. On other occasions, either as individuals or small groups, they will prepare different aspects of a given topic. Then their separate findings are presented to and discussed by the whole group. This is followed by individual work and the topic is completed by group discussion. What the learners in Room 2 do know is that, as their teacher uses a variety of methods, one day will not exactly be like the previous one.

Today, following some fieldwork, their teacher has decided to initiate a discussion, after some prior warning, on *Sustainable forms of energy and power*. Almost at once, Helen takes issue with some of the teacher's remarks on use of wood fuel by the rural folk. Helen's comments, in turn, encourage Pindurai to speak and discussion, by most of the group, is soon under way. Neither John nor Busi have much to say, nevertheless they are hearing and considering several different points of view.

At break, for a time, discussion on *Sustainable forms of energy and power* continues before becoming more general. The learners and teacher have developed into a well-integrated group so that a suggestion, during break, for a good-natured mid-term joke is readily adopted. Later it is successfully brought off, to the enjoyment of all.

A casual visitor notices the learners' rooms as follows; Lameck and his classmates use a room numbered 1, but also labelled: *Individualised Learning Room* while Helen and her classmates use Room 2 that is labelled simply: classroom.

Request:

- 1) Assume that you were the third geography teacher in the school described in the story. Referring to how you **currently typically** teach the new or updated form 3 and 4 geography syllabus, in not more than one page, say what Antony Silson would have observed as your real-life-teaching episode.
- 2) In this story neither set of learners had a choice as to which room they could enter in order to learn. But suppose they were to be given a choice in the future. The writer does not know how many would opt for each room, but he knows what his choice would be. Which is your choice and why?

Adapted from Silson, A. (1982). What Happened in Two Rooms? Two Approaches in Teaching Geography, *Teaching Geography*: 7(4), 149.

Appendix 14: Learner-Centred Instructional Practices Gauge - Am I a Learner-Centred Teacher?

Introduction and instruction

My name is Manasa Munashe Madondo and I am with the Department of Curriculum and Arts Education at the University of Zimbabwe. I am currently pursuing Doctor of Philosophy (PhD) studies with the University of the Free State (UFS) on the teaching and learning of the updated geography curriculum at form 3 level. The *Zimbabwe Curriculum Framework (ZCF) 2015-2022* led to the development of an updated or new geography syllabus covering all levels of secondary schooling. The *ZCF 2015 - 2022* advocates a learner-centred teaching and learning approach for all levels and in all learning areas including geography.

You have been identified as a key participant for my study. As part of generating data for the study, I am using a learner-centred instructional practices gauge as shown below. The gauge is an adapted self-evaluation checklist which lists, in the first column, some of learner-centred teacher attributes or behaviours.

Please spare some time to indicate how often you display the identified behaviours in your geography teaching by ticking or crossing in the appropriate frequency category spaces provided. Please be honest in your responses as there is no right or wrong answer and there is no best teaching-learning method.

Possible learner-centred teaching behaviours	Frequency category			
	Nearly always	Frequently	Sometimes	Rarely
1) I prefer a flexible seating arrangement and learner movement that maximises learner interaction.				
2) I make available a wide range of teaching-learning resources and materials for learner use.				
3) I seek to stimulate student thinking when presenting a problem, debatable issue, controversial issue etc.				
4) For a problem, debatable issue, controversial issue etc. I allow learners to react freely and to navigate the course of the lesson.				
5) Learners talk more than I do during classroom lessons.				
6) When I talk, I question not tell.				
7) I intentionally use learners' ideas as a springboard for questions to learners and subsequent learning.				
8) I allow learners can come up with their own answers to my questions.				
9) I encourage students to test how sound their ideas are in the light of experience.				

10) Class dialogue is characterised by courtesy and openness to divergent views.				
11) I allow a natural rather than a rigid structured development and practice of skills during lessons.				
12) I encourage a questioning stance with regards to statements made in class.				
13) I encourage students to explore the implications of holding alternative value and policy positions.				
14) I make students aware of personal, social and political bases for diversity in attitude, values and policies.				
15) I encourage students to take own decisions and positions which they can understand and defend.				
16) I use formative evaluation in classroom to improve learning and not to assess.				
17) I seek to ensure learner experiences success through structured support.				
18) I evaluate students on growth in many aspects of the learning experience in addition to knowledge acquired.				
19) I share results of assessment and evaluation with learners to identify strengths, weaknesses and areas of possible improvement.				
20) I make learners aware that I am engaged in on-going geographical enquiries, and that learning need not stop when one leaves school.				
Responses	Total number (ticks or Xs)	Multiplier	Sub-total	
Very frequently		x 4		
Frequently		x 3		
Sometimes		x 2		
Rarely		x 1		
Total				

To gauge how you fare as learner-centred teacher, use the table entries to: (i) find the sum of responses for each frequency category, (ii) enter the total in the table (iii) calculate your sub-totals by using the designated multiplier (for example, your “very frequently” score is to be multiplied by 4). Finally calculate your total score. This will be a score out of 80. This is a rule of thumb or unscientific guide, but if you get:

- **65-80:** You are a learner-centred teacher who consciously uses ways to promote learner-centred learning and enquiry. You are aware of the need to maintain a learner-centred teaching learning environment in your classroom.
- **45-64:** You know the value of learner-centred teaching which you utilise where and when appropriate issues and materials are available. Watch out on learner-centred teaching opportunities so as to use them with your learners.
- **35-44:** All is not lost keep trying even harder-it will eventually pay off.
- **Less than 34** Ugh! There is always a beginning!

Adopted from *Teaching Geography. The Schools Council Curriculum Development Project: Geography 16-19 (United Kingdom) in its Project News of July 1980.*

Appendix 15: Lesson Observation Guide

Preliminary remarks

My name is Manasa Munashe Madondo and I am with the Department of Curriculum and Arts Education at the University of Zimbabwe. I am currently pursuing Doctor of Philosophy (PhD) studies with the University of the Free State (UFS) on the teaching and learning of the new or updated geography curriculum at form 3 and 4 level. You have been identified as a key participant for my study. As part of generating data for the study, I am kindly asking to observe and audio-record three of your form 3 or 4 lessons. Each observation is for the duration of the lesson which, I understand ranges from thirty-five to forty minutes for a single lesson. Please note that the identity of the school, your identity as a participant and that of learners and classes observed as part of this study will be kept confidential. Only fictitious names will be used in the research report.

Section A: Lesson observation.

Researcher notes the following details.

School

Class **Number of learners** **Date**

Time

Lesson

Topic

.....

Researcher to comment on the presence or absence, use and impact of the following practices in the observed lesson and in the accompanying audio-recorded transcription. **NB. The researcher to use specially designed landscape sheets for writing down observations.**

Possible learner-centred classroom practices	Presence/absence and how used	General impact on learning
1) Link from prior to new knowledge made meaningful to learners.		
2) Orderly class, learners showing intrinsic discipline and shared purpose.		
3) Time or lesson duration allows teacher to anchor lessons through learner-centred teaching.		
4) Intrinsic learner involvement.		
5) Knowledge applied in relevant ways for individual learner/accommodates individual learner needs.		
6) Use of learner experiential learning.		

7) Activities and assignments relevant to learners' lives.		
8) Focus on higher order thinking skills including relevant problem-based learning/critical thinking.		
9) Use of a wide variety of methods that actively engage learners.		
10) Multiple approaches used to accommodate learner diversity and choice.		
11) Learner questions encouraged and respected.		
12) Learner questions and actions shape the learning process and not subvert it!		
13) Use of questions to promote learner-centredness.		
14) Scaffolding provided and based on individual learner needs.		
15) Chance to engage in learner independent inquiry provided.		
16) Meaningful collaborative engagement or cooperative learning e.g. dyad-based work or small group work utilised.		
17) Guiding role adopted through teacher non-intrusive approach to facilitate pre-eminence of learner interests, preferences, learning styles etc.		
18) Learners take centre-stage with teacher as facilitator and contributor (not director or authoritarian of knowledge).		
19) Teacher authoritative and in control but not authoritarian.		
20) Teacher displays a caring, non-reprimanding and friendly manner!		
21) Learners involved in active learning utilising critical incidents of		

interactive decision-making.		
22) Reflective, critical and high-level thinking chances and exercises provided to learners.		
23) Learners able to diagnose their strengths and weaknesses as they have responsibility for learning.		
24) Use of assessment to promote learning and inform future practice.		
25) Focus on processes and development of connections rather than teaching content loaded with detail.		
26) Organising content around current themes and real-life issues rather than around structure of subject or discipline i.e. discipline-based.		
27) Hands-on activity and independent research and not through passive knowledge accumulation from existing store of knowledge.		
28) Language use, tasks and methods promote positive self-image in learners.		
29) Assessment meaningful and reinforcement strategies that involve learners.		
30) A wide range of teaching-learning resources and materials (multi-media) for learner use at the design, use and evaluation stages.		
31) Interactive learner exchanges on the basis of teaching-learning resources and materials/media.		
32) Making learners aware of the changing nature of knowledge, being proactive and self-driven.		

Section B: In the light of the observed lesson, the researcher to give reasoned comments to the following questions.

- 1) Describe the particularities and complexities of each teaching situation for example; class size, the availability of resources, time allocation for lesson, support to teacher from other teachers and the school, the teacher's social interaction in the school etc. Comment on how these impact on teacher's understanding and use of learner-centred approaches.
- 2) Does the demonstrated approach place the responsibility for learning in the hands of actively engaged learners?
- 3) Can you say the teacher correctly understands and implements the learner-centred instruction recommended by the *ZCF 2015-2022* related new geography curriculum?
- 4) Overall, what is your verdict on the lesson observed with regards to the teacher's use or adoption of learner-centred pedagogy?

Appendix 16: Interview Guide with Teacher Participants

Introduction

My name is Manasa Munashe Madondo and I am with the Department of Curriculum and Arts Education at the University of Zimbabwe. I am currently pursuing Doctor of Philosophy (PhD) studies with the University of Free State UFS) on the teaching and learning of the new or updated geography curriculum at form 3 and 4 level. I thank you most sincerely for consenting to take part in this research and for allowing me to sit in your lessons to observe you teach. I kindly request that you spare some time, which will be at most an hour, so that we can talk about the three lessons that I observed you teach.

You are kindly informed that the conversation in this interview will be audio-recorded and I need to reiterate that all the information gathered in this research is for purposes of the research only and that it will be kept safe until it is destroyed after a period of at least a year. I will provide or discuss a draft report on the interview and the observed lessons so that you can verify my interpretations and claims. The identity of the school, your identity as a participant and that of learners and classes participating in this study will be kept confidential. Only fictitious names will be used.

Instruction

Please kindly respond to the questions to the best of your knowledge and ability.

Section A: Teacher participant details

Could you kindly supply the following details about yourself?

1. What are your professional qualifications?

College Teaching Diploma

☐

Trained graduate

☐

Other specify _____

2. What other subject other than geography do you teach?

3. In which one of the following age ranges do you fall?

Below 25

☐

26-30

☐

31-35

☐

36-40

☐

Above 40

☐

4. For how many years have you been teaching?

Below 5

☐

6-10

☐

10-15

☐

16-20

☐

Above 20

☐

5. Of these years, how many have you spent here at this school?

Below 3

☐

4-6

☐

7-9

☐

10-12

☐

Over 13

☐

6. For how many years have you been teaching geography at form 3 or 4 level?

Below 5 ☐ 6-10 ☐ 10-15 ☐ 16-20 ☐ Above 20 ☐

7. Which best represents your current post(s) of responsibility at this school?

Ordinary teacher ☐ Head of Department ☐ Senior Teacher ☐

Deputy Head ☐

Other specify _____

8. Do you have any of the following involvement with the wider education system?

Examiner of public examinations ☐ National geography syllabus panel member ☐

Writer of textbooks ☐ Member of Teachers' Union ☐

Other specify _____

Section B: Teacher and the new updated curriculum

- 1) Briefly describe your encounter and experiences with the new and updated *ZCF 2015-2022* curriculum and the related Geography Syllabus 4022.
- 2) 'A new curriculum at times leaves teachers disgruntled.' What is your take on this with respect to the new geography curriculum? Explain fully.
- 3) In your experience, what departure(s), if any, has the new curriculum brought to geography teaching and learning? **Probe:** How their prior knowledge, beliefs and experiences (on content, methods, assessment etc.) shape construction of new understandings and hence the whole implementation process.
- 4) As a geography teacher, how different is the new syllabus from the old syllabus with respect to: content, methods, assessment and overall thrust?
- 5) Are you comfortable with the changes brought in by the new curriculum in geography? Please explain your response. **Probe:** Do you understand the reasons behind the changes? Explain.
- 6) How have you been prepared to handle the new curriculum? **Prompts:**
 - Availled with relevant policy documents needed for implementation. Please name these documents and say how helpful they have been. **Listen** to teacher interpretation of policy stimuli.

- Aailed with updated/new syllabuses
 - Aailed with updated textbooks.
 - Given other materials for use: **Specify.**
 - Have been in-serviced at school, district or provincial level as to how to implement the new curriculum.
 - Have had to develop myself so as to cope with the demands of the new geography syllabus. (**Probe:** how so? Acquiring relevant literature, attending short courses etc.)
- 7) Can you say you were adequately prepared or inducted to teach the new geography syllabus resulting from the ZCF 2015-2022 reform? Please explain.
 - 8) How would you describe your uptake of the new curriculum in geography? (**Probe:** Smooth? Deep-end experience, Haphazard? Etc.). **Listen** for explanations.
 - 9) Do you see yourself as successfully implementing the new curriculum? To what factors do you ascribe your response?
 - 10) Are there, in your opinion, reasons hindering the smooth teaching of the new form 3 and 4 geography syllabus? Please explain.
 - 11) What, in your understanding, explains the need for the current changes in the content and methods in geography and in education generally? To what do you ascribe such understanding? **Prompts:** In-service training? Availability of relevant information? Own efforts? Involvement in the process leading to these changes?

Section C: Comments on observed lessons. *Since the interview is based on the lessons observed, its substantive content and scope is best formulated after the lesson observations.*

In this part of interview, I am making a follow-up from the three lessons I observed you teach. Please think back to those lessons and kindly share with me some thoughts on your teaching the new and updated geography curriculum.

For the lesson on _____

With Form 3 or 4 _____ on _____ 2017/2018.

- 1) What did you want your learners to get out of the lesson? (**Probe:** The goals vis-à-vis their alignment to teaching approach)

-
-
- 2) Tell me any **two** reasons for using the method or methods that you used in the lesson.

(a) _____

(b) _____

- 3) What would you do differently if you had a chance to re-teach the lesson and why?

- 4) In your opinion, under which what circumstances do you think your learners learn best? (**Probe:** Teacher-directed lesson, learner-centred lesson etc. Explain your response.).

- 5) Does the approach you used represent your normal instructional approach or a departure from it? Please explain. (**Listen for:** teacher understanding of the change, persistence of habits, etc.).

- 6) *If the teacher demonstrated a teacher-dominated lesson, ask:* Why did you prefer this approach in contrast to learner-centred pedagogy ? (**Listen for:** links to established practices, biographic variables, time and content constraints, teacher understanding of new curriculum etc.).

- 7) *If the teacher demonstrated a learner-centred lesson, ask:* What considerations made a learner-centred approach possible? (**Note:** how has this been influenced by requirements of the new curriculum, policy messages? Pre-existing practices?).

- 8) *If the teacher combined aspects of learner-centred and teacher-dominated instruction, ask:* What considerations made you use such an approach? Explain. (**Probe:** Own understanding, any special considerations etc.).

- 9) As a teacher teaching the new Geography Syllabus 4022, what are you expected to do during the teaching learning process? (**Probe:** What is the teacher's role? Has that (your) role teacher changed, if at all, with the introduction of new syllabus? **Note:** any examples, specific content themes in geography and understanding of new curriculum).

10) Let us talk about your lesson with respect to the following processes; that is whether these were either part of the lesson or not? How much of the following processes could you say were part of your lesson? Please kindly explain your response.

- Guided by how learners expected to acquire knowledge. (**Probe:** Method and processes used).
- There was active learning/ it was an interactive lesson.
- Relationships i.e. between learner and teacher and, between learners themselves showed mutual respect.
- Learners were allowed a sense of autonomy/decision making.
- Opportunities to reflect on teaching and learning were given in the lesson.
- Learners were allowed to show responsibility and accountability.
- Emphasis was on deep learning and understanding.

11) Describe how you enabled your learners to cope with the geography curriculum? (**Listen for:** teacher-initiated adjustments or changes to curriculum, methods etc. to suit learners).

12) In your opinion, what factors promote or can promote the use of learner-centred instruction in geography? (**Prompts:** dominant teacher beliefs, nature teacher training, calibre of learners, availability of teaching-learning materials, etc.)

13) In your opinion, what factors militate against the smooth/wholesale use of learner-centred instruction in geography? (**Prompts:** dominant teacher beliefs, nature of teacher training, calibre of learners, availability of teaching-learning materials, etc.)

14) If you were to advise the authorities (school level or other) on the implementation of the new curriculum, what would you say?

15) Please comment on any other issues about the new geography curriculum which we have not touched on, but you feel should be discussed.

Thank you very much for your valuable contribution and the time you have spared to answer my questions.

Appendix 17: Interview Guide for Policy Custodians and Implementers

Target interviewees:

- Senior personnel Curriculum Development and Technical Services (CDTS)/Curriculum Development Unit (CDU),
- District Education Inspectors,
- School Heads.

Introduction

My name is Manasa Munashe Madondo and I am with the Department of Curriculum and Arts Education at the University of Zimbabwe. I am currently pursuing Doctor of Philosophy (PhD) studies with the University of Free State (UFS) on the teaching and learning of the new geography curriculum at form 3 and 4 level. I thank you most sincerely for consenting to be interviewed for this research. I kindly request that you spare some time, which will be at most forty-five minutes, so that we can talk about the *Zimbabwe Curriculum Framework (ZCF) 2015-2022* educational reform and its implementation in schools.

Please kindly note that the information gathered from this interview is for purposes of the research only and that your identity as a participant in this study will be kept confidential. Only fictitious names will be used in the report. I will provide a draft report on this interview so that you can verify my interpretations and claims.

Instructions

Please kindly respond to the questions to the best of your knowledge and ability.

Interview questions for CDTS Principal Director or assigned staff

- 1) Could you kindly narrate how teachers have been involved in the (i) curriculum review exercise, (ii) validation of the *ZCF 2015-2022* document and (iii) the resultant syllabus design and development process?
- 2) How inclusive of schools and teachers has been the process of trial testing and validation of new syllabuses? (**Probe:** To what extent can such involvement lead to effective *ZCF* enactment?)

Interview questions for CDTS Principal Director or assigned staff, District Education Inspectors and School Heads

- 1) Which are the main policy documents and related official papers that guide the implementation of the *ZCF 2015-2022* process? **Prompts:** *The Zimbabwe Curriculum Framework 2015-2022, The new Secondary School Geography Syllabus, Curriculum Policy: Secretary's Circular No. 2 of 2017, Teachers' Guide, Geography Textbooks on new Curriculum, The continuous assessment framework.*
- 2) How accessible have these policy documents and related official papers been to schools and the classroom teacher? Explain with respect to geography teaching and learning. (**Listen to:** Whether schools and teachers got the new

syllabi in time, in what form, that is, as electronic copies or hard copies? What was the distribution process like?)

- 3) Describe the kinds of induction or in-service training individual geography teachers received to understand and effectively teach according to the guidelines and requirements of the *ZCF 2015-2022* and the new geography syllabus. (**Prompts:** What is your response to claims that the new curriculum was imposed on unprepared teachers who lacked requisite policy guidance, pedagogical training, continuous assessment skills and curriculum materials such as syllabuses and relevant texts?)
- 4) Describe any support you continue to render to geography teachers as they enact the new instructional requirement of using learner-centred teaching. (**Prompts:** Ministerial newsletters, in-service workshops, learning support materials.)
- 5) In respect to geography teaching and learning, would you say the policy requirement to use learner-centred pedagogy has been successful? (**Probe:** Please explain to what it owes its fate of either success or partial success or failure.)
- 6) What do you see as (i) promoting and (ii) hindering the realisation of learner-centred pedagogy in middle level secondary school geography teaching and learning?

Thank you very much for your valuable contribution and the time you have spared to answer my questions.

Appendix 18: Document Analysis Guide for Learner-centred Pedagogy for Middle Secondary School Geography

Dimension for analysis	Specific aspect of focus
1. Background information on document	• Title • Source or author • How document was collected • Circulation or availability • Dates of issue, expiry • Other aspects - specify
2. Purpose	• General information on new curriculum • Policy guidance, consistency • Pedagogical issues/vision of learner-centred teaching • Configurations of document as curriculum to meet specific learner needs • Layout and detail on curriculum dimensions • Internal consistency and congruence analysis • Other relevant issues - specify
3. Stipulations on ZCF 2015-2022 issues/Aspects of learner-centred instruction highlighted	• Learning teaching standards • Life skills, competences and learner exit profiles • Teacher roles and authority • Learner roles and responsibilities • Community/stakeholder roles • Approaches to teaching and learning • Nature of assessment, learner involvement
4. Nature of knowledge, teaching and learning approach embodied.	• Details of content, outcomes, competences, learning methods, assessment etc. • Content as fixed body of information, bounded, described and taught vis-à-vis content as fluid, changing overtime. • Content organised around real-life/current issues and not subject-based? • Emphasis on the active and reflective nature of learning and learners.

5. Contextual milieu of reform afforded by the document: Comment on the usefulness and relevance of document in clarifying and enabling understanding and

enactment of the new and updated geography curriculum linked to the *ZCF 2015-2022*.

Some of the documents for analysis include: *The Zimbabwe Curriculum Framework 2015-2022*, *The new Secondary School Geography Syllabus 4022*, *Curriculum Policy: Secretary's Circular No. 2 of 2017*, *Geography Forms 1-6*, *Secondary School Level 2015-2022 Teacher's Guide*, *Geography Textbooks on new Curriculum*, *New Curriculum Media Releases and Statements*.