

**GUIDELINES FOR THE REVIEW AND RE-FORMULATION OF
THE SOUTH AFRICAN WHITE PAPER ON E-EDUCATION (WHITE PAPER 7)**

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**Thesis submitted in fulfilment of the requirements for the degree
of
DOCTOR OF EDUCATION (DEd.)
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)**

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December 2023

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DECLARATION

I, **Kabeya Tshimanika**, also known as Marie Claude, hereby declare that the content of this dissertation/ thesis represents my own independent work which I do, further, attest that has not previously been submitted, elsewhere, for academic examination towards any qualification. The content of this dissertation/ thesis represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.



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ABSTRACT

This study used a qualitative historical research approach to analyse the context of formulation for the South African e-Education policy document, referred to as White paper 7 (WP7). The researcher conducted a multidimensional assessment of the policy itself, including the socioeconomic and political context of its formulation. There is dearth of research on the causes of WP7 failure despite its inability to reach the set objectives and goals by 2013. The known existing studies on WP7's failure exonerate it and its context of formulation. The causes of failure are, in the main, attributed to other factors, such as teachers' inability to use technology and their reluctance to the cause.

The study relied on two main sources of data, including data collected through semi-structured interviews (SSI) with purposefully selected participants, and the analysis of key documents relating to WP7. Both sources of data were subjected to critical discourse analysis which involved the application of The Habermas Theory of Communicative Action (TCA) - Validity Claims (VC).

Findings from the study reveal that the post-apartheid socioeconomic and political context of South Africa significantly influenced the formulation of WP7. With regard to policy as *process*, the study found that WP7 formulation failed to follow conventional or orthodox public policy formulation process. This may have led to its textual perspectives having the hallmarks of a symbolic policy, characterised by the lack of dedicated financial resources, amongst others. From its *discourse* perspective, it is found that WP7 remained in the rhetoric of the defunct curriculum 2005 (C2005) (Inclusive of its principal tenet the Outcomes-based Education (OBE)) and the discourse of HIV/AIDS while the master curriculum, from which it derived its existence, evolved. Finally, although it is found that, WP7, in terms of the Validity claim tests, was comprehensive enough, it, however, failed the truth, sincerity and legitimacy claim tests.

In light of the aforementioned, and following the ultimate aim of the study to develop guidelines for WP7 review and reformulation, the researcher developed guidelines which are proposed to the Basic Education sector, in line with the expansion of the lifespan of WP7 to 2030, to align it with the National Development Plan (NDP). Inclusive to the guidelines is a proposed web-based application for the operationalisation of the newly reviewed and reformulated e-Education policy.

ACKNOWLEDGEMENTS

First of all, I give praise to the Almighty God, who reveals His presence to us through His son, our Saviour, the Lord Jesus Christ, our "guide in times and circumstances." This is a testament of my awareness of the fact that I could not have accomplished anything without His constant presence in my life, which serves as a tangible testament to His love and protection for the less fortunate. May His blessings extend to all those who played a part in this accomplishment.

With deep gratitude and appreciation, I would like to express my heartfelt thanks to the following individuals who, in various ways, played a significant role in my accomplishment:

- Professor Agnes Chigona and Dr. Osman Sadeck, my supervisor and co-supervisor, your unwavering guidance, valuable advice, accessibility, prompt responses, and exceptional intellectual wisdom have been the driving force behind my achievement. Please accept my gratitude and thankfulness that words cannot really express fully and let the Lord reward you handsomely;
- Professor Yusuf Sayed, your invaluable assistance, especially in addressing policy matters during the proposal phase of this study, was truly inspiring.
- Dr. Moses Moyo and Dr. Caroline Magunje, your critical reviews, insightful feedback, and constructive comments greatly enriched my work.
- My fellow participants in the writing retreat group, your amazing support and contributions have been invaluable throughout this journey.
- Colleagues, both current and former, from the Basic Education (DBE), Western Cape Education Department (WCED), Gauteng Department of Education (GDE), Northern Cape Department of Education (NCDoE), and SchoolNet, please accept my thanks and gratitude for generously agreeing to participate in this study. Without your collaboration, this achievement would have not been possible.
- My colleague and supervisor, dear friend Gideon Oliphant, our daily conversations and shared experiences related to our respective studies served as a major source of motivation and significantly contributed to this achievement.
- All my former colleagues and friends, especially Dr. John Ostrowick, Anny Mohale and Dr. Marie Grace Villanueva (MG), your advice and suggestions were incredibly helpful.
- My colleagues Messrs. Layton Wildt and Oupa Maine, your assistance and contributions to the development of the web-based toolkit, for the proposed operationalisation of the reviewed and reformulated WP7, are greatly appreciated.
- A special thank you to Dr. Primrose Bimha for providing language editing for this thesis.

In conclusion, I want to express my gratitude to those who have been my constant source of strength and inspiration. They are the reason I strive to improve and the ones I live for. I am specifically addressing you, Vio La Tshimsette Tshimanika. You have been by my side through all the ups and downs, from our early days of love to the present, and you have witnessed and significantly contributed to my educational journey. My heartfelt thanks go out to you.

I also want to extend my appreciation to my sons, Shaun, Lloyd, and Bradely Tshimanika, and my angel Prim K. Tshimanika. You have endured my extended absences over the past four years, and I am grateful for your understanding, support, and love. This achievement should serve, without any pressure, as a source of motivation to continually strive for excellence in whatever path you choose to follow.

May this accomplishment serve as a source of inspiration to pursue knowledge throughout our lifetime, have unwavering self-belief and always strive towards the realisation of individual and collective objectives.

DEDICATION

This PhD thesis is dedicated to:

- My late father and role model, Constantin Kabeya Tshilundu Kamwa Ka Zubu, and my dear mother, Marie Jeanne Kapinga Kabanga. I extend my deepest gratitude for your invaluable contributions to my life, particularly for illuminating the path of education as the most profound means for the holistic development of an individual. I will forever be indebted to you for the enduring values you've instilled in us;
- My siblings, Eugenie Kabanga Mudibu, Dr. Delly Kaninda Mutshi, Kaba Kabanga Bukaka, Lamas Kabongo Bwatu, Bokul Pepe Ndomba, Emerance de Lux Bupela Bwabu, and Cadet Donatien Mutombo and their respective families. I express my profound appreciation for the unwavering support that stems from our strong family bond. This achievement is dedicated to all of you, to us, and to our respective families. May it serve as an enduring source of inspiration and a model for our future generations;
- I want to express my gratitude to my grandparents, Kaninda Mutshuka and Kabanga Mudibu, as well as Kabanga Bukuka and Bupela Bwabu. This achievement serves as a testament of your great work in the upbringing of my parents and the enduring legacy that we are compelled to carry forwards.

RESEARCH OUTPUT

One of the outputs of this study is the published peer-reviewed article, titled “the Influence of Policy Formulation Contextual Factors on Implementation: South African White Paper 7 as a Case in Point”. The article was collaboratively written by the researcher and his two co-supervisors and published in July 2022 by the Electronic Journal of e-Learning (EJEL), volume 20(4), and pages 386-399 (international accredited journal). The article delves into the relationship between policy formulation contextual factors and their impact on policy implementation, with a specific focus on the South African White Paper 7 (WP7).

The publication sheds light on how the socioeconomic and political factors prevailing during the time of WP7's formulation significantly influenced both the content of the policy and its subsequent implementation. For those interested in reading the full article, it is available at the following link:

<https://academic-publishing.org/index.php/ejel/article/view/2305>

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LIST OF ACRONYMS

Abbreviation	Meaning
ANC	: National African Congress
APPs	: Annual Performance Plans
Ars	: Annual Reports
C2005	: Curriculum 2005
CDA	: Critical Discourse Analysis
CF	: Conceptual Framework
CI	: Context of Influence
CP	: Context of Practice
CPA	: Critical Policy Analysis
CPUT	: Cape Peninsula University of Technology
CRD	: Conflict Resolution Diagram
CRT	: Current Reality
CTP	: Context of Text Production
DBE	: Department of Basic Education
Des	: Desirable effects
DoC	: Department of Communication
DoE	: Department of Education
DWP7	: Draft White Paper 7 (Green Paper)
EC	: Evaporating Cloud
EC/ CRD	: Evaporating Cloud/ Conflict Resolution Diagram
ELRC	: Education Labour Council
F2F	: Face to Face
FET	: Further Education and Training
FRT	: Future Reality Tree
GDE	: Gauteng Department of Education
GEAR	: Growth, Employment and Redistribution
GET	: General Education and Training
Gr	: Groundedness/ number of quotations coded by a code
GRR	: Guidelines for the Review and Reformulation
GS	: Code Groups
HEDCOM	: Head of Departments Committee
HC	: Hypothesis of Causality
HIV/AIDS	: Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HOD	: Head of Departments
IADB	: Inter-American Development Bank

ICT	: Information and Communication Technology
ICT	: Information and Communication Technologies
IDRC	: International Development Research Centre
IG	: Interest Group Actors
IH	: Intervention Hypothesis
INTVEE1-11	: Interviewee (Participant) 1 to 11
ITPPM	: Institutional Theory of Public Policymaking
MTEF	: Medium Term Expenditure Framework
NAIGs	: Negatively Affected Interest Groups
NCDoE	: Northern Cape Department of Education
NDP	: National Development Plan
NEDLAC	: National Economic Development and Labour Council
NPS	: Negotiated Political Settlement
NQF	: National Qualifications Framework
OBE	: Outcome Based Education
PAA	: Political Administrative Arrangement
PAIGs	: Positively Affected Interest Groups
PAP	: Political Administrative Programme
PBs	: Policy Beneficiaries
PEDs	: Provincial Education Departments
PP	: Public Policy
PPM	: Public Policymaking
PPs	: Public Policies
PRT	: Prerequisite Tree
RDP	: Reconstruction Development Programme
RQ	: Research Question
RNCS	: Revised National Curriculum Statement
RTPPM	: Rational Theory of Public Policymaking
SA	: South Africa
SI	: Structured Interview
SMART	: Specific, Measurable, attainable, rational and time-bound
SOEs	: State Owned Enterprises
SSI	: Semi-Structured Interviews
STI	: Science, Technology and Innovation
TGs	: Target Groups
TL	: Teaching and Learning
TOC	: Theory of Constraints

TT	: Transition Tree
UDEs	: Undesirable Effects
UNAIDS	: Joint United Nations Programme on HIV/AIDS
US	: United State of America
USI	: Unstructured Interview
WCED	: Western Cape Education Department
WP7	: White Paper 7

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This study sought to develop guidelines for the review and reformulation of the South African White Paper on education, referred as White Paper 7 (WP7). The study was informed by the researcher's observation of consistent failure to achieve the goals envisaged in the South African e-Education policy (White paper seven (WP7) (Howie & Blignaut, 2009; Mooketsi & Chigona, 2014; Padaychee, 2017). WP7 sought to ensure that "...every South African learner in the general and further education and training bands became Information and Communications Technology (ICT) capable by 2013" (DoE, 2004: 17). In the absence of any known study that interrogates WP7 itself and its context of formulation, this study sought to identify socioeconomic and political factors which could be attributed to failure with regards to formulation, content, and implementation challenges. Ultimately, the study developed guidelines for the review and reformulation of WP7 in view of its continual use.

A set of seven (7) interrelated questions guided the initial stages of the study. They formed the basis for developing the final focussed main research question and research sub-questions for the study. The initial questions included the following:

- 1) What socioeconomic and political context led to the formulation of WP7 (explore and understand the context)?
- 2) How did the socioeconomic and political context of WP7 formulation contribute to its widely reported failure to reach set objectives and goals by 2013?
- 3) Who were the formulators of WP7 (identification of key policy actors involved in the formulation of WP7)?
- 4) What ideological views and ideas did the actors (formulators) hold regarding the integration of ICT in education (context of compromised policy)?
- 5) How did their (formulators) ideological views influence the policy? (Context of influence - content and implementation).
- 6) What are the findings and lessons to be learned from the exploration of the context of formulation and context of implementation? (Empirical evidence and literature review)
- 7) How can an understanding of the socioeconomic and political context, the findings, and lessons learned, assist in developing guidelines for the review and reformulation of WP7? (Ultimately the main unit of inquiry of this study and ensuing proposed solution).

The findings of this study have revealed that:

- 1) The post-apartheid socioeconomic and political context significantly influenced the formulation of WP7;
- 2) With regard to the policy as *text*, WP7 was found to be typical of symbolic policy whose intention was the implementation of what the *text* claims to implement;
- 3) In relation to the policy as *process*, it is established that WP7 followed unconventional formulation process;
- 4) With regards to the *discourse* perspective, WP7 was found to still be anchored in the rhetoric of the defunct curriculum 2005 that was premised on the outcomes-based education (OBE) as its core tenet;
- 5) Findings related to the validity claims tests suggest that regardless of concerted efforts to comply with the four validity claims, including the comprehensibility, the truth, the sincerity, and the legitimacy claims, WP7 failed to pass the validity claims tests.

1.2 CONTEXT OF THE STUDY

The fact that the introduction of Information and Communication Technology (ICT) in education featured amongst the very first policies developed within the first ten years of post-apartheid South Africa (SA), may be regarded as a signal of a new approach to education offerings. It further displays a certain level of understanding of the role that ICT in education could play in the country's holistic transformative agenda. As such, an impression was created that the new ruling party viewed ICT as critical tools for levelling the ground in terms of the education offerings and the acquisition of the needed skills and knowledge for the 21st century (DoE, 2004). It is in this context that WP7 envisions the transformation of learning and teaching through the use and integration of ICT in education (DoE, 2004). The policy (WP7) aimed to materialize or realize the said transformation by accomplishing its goal. This was in the context of education policies perceived as capable of "...altering, reimagining and reshaping" education (Lindgren, Hult, Segerholm & Rönnerberg, 2012: 570).

1.2.1 Problem Statement

The complete range of reasons and contributing factors behind the failure of White paper 7 (WP7) to achieve its predetermined objectives remains unclear and is not yet comprehensively understood. This lack of understanding is compounded by the absence of any dedicated study that investigates the context in which WP7 was formulated, with the aim of elucidating the depth and impact of this context on the apparent inability of WP7 to attain its stated goals and

objectives. Consequently, there exists a notable gap in our knowledge regarding WP7 and its shortcomings.

Current known study did not interrogate the policy’s (WP7) context of formulation, inclusive of the socioeconomic and political context of the time of its formulation, to establish whether such a context could have contributed to the implementation challenges and failure thereof. This study endeavoured to close the gap as it attempted to understand the socioeconomic and political context of WP7 and how it could have influenced both the policy content and its implementation thereof.

Ultimately, and in line with the study’s objectives and aim, the study sought to make use of the lessons learned through an understanding of the context of WP7’s formulation and, develop guidelines towards the review and reformulation of WP7. This involved delving into historical records, identifying key individuals and factors that shaped this history, and extracting pertinent insights for a comprehensive and explanatory analysis of the situation. The researcher conducted a situational analysis to aid in the interpretation and development of prospective solutions. Figure 1.1 below illustrates the study's overarching purpose.

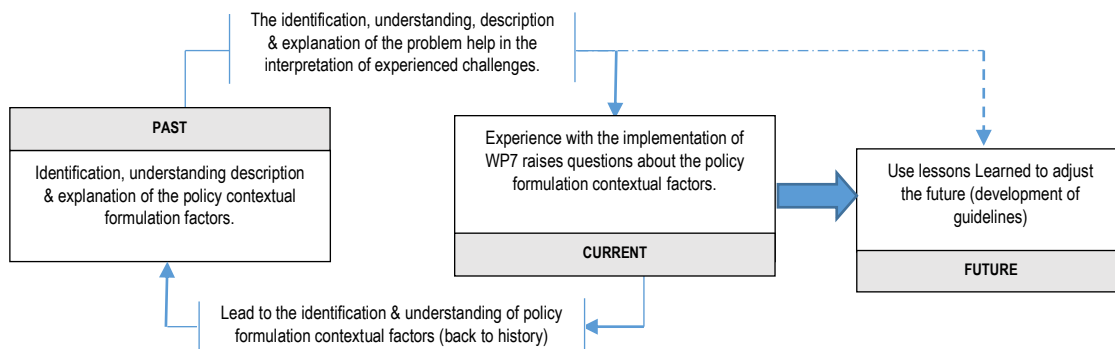


Figure 1.1: Logical flow of the research study by the Researcher

1.3 RATIONALE FOR THE STUDY

Approximately twenty (20) years (2004-2023) since the publication of WP7 and ten (10) years (2013-2023) since its expected outcome, WP7 is reported to have failed to reach its goals (Howie & Blignaut, 2009; Mooketsi & Chigona, 2014; Padaychee, 2017). This is regardless of some widely publicised initiatives undertaken over the years by the departments of education in Gauteng and the Western Cape (two of nine provinces in South Africa), in particular. Howie and Blignaut (2009), for instance, found that the progress made in ICT implementation between 2004 and 2009 was very minimal.

Teachers and school principals, in comparison to their counterparts in Chile, were still inclined to the traditional vision of pedagogy that, to some degree, considers the introduction of ICT in teaching and learning as disruptive or an 'add-on'. More recently, Padayachee (2017) established that ICT uptake remained low, with the frequency of usage per tool ranging between 18% for reflective dialogue, to 41% for discourse tools, while data-sharing usage was only at 29% and experiential tools at 26%. Yet the attainment of any policy goals is dependent on the accomplishment of strategic policy objectives.

The aforementioned indicators of WP7's implementation failure emanate from comparative analysis studies that contrasted the policy's (WP7) own inter-related three phases, timebound and "...a multiyear programme of action" (DoE, 2004: 38) with the recorded achievements. The studies include: (a) the study by Howie and Blignaut (2009) on South Africa's readiness to integrate ICT into mathematics and science pedagogy in secondary schools; (b) a survey of ICT integration in South African schools by Padayachee (2017) and separate studies by (c) Dlamini and Coleman (2017) and (d) Behar and Mishra (2015).

Though not explicitly stated, all these studies assessed the implementation of e-education in South Africa. The last two studies - the study by Dlamini and Coleman (2017) and the one by Behar and Mishra - in particular concluded that the concept of integrating ICT in education, in SA, was no different from, or equated to the mere delivery of technology and related hardware to schools. This, concluded the studies, is an indication of failure to transform teaching and learning as envisaged by WP7 (Dlamini & Coleman, 2017; Behar & Mishra, 2015). The study by Mooketsi and Chigona (2014) sharply departed from comparative analyses by investigating WP7's contextualisation during implementation. Mooketsi and Chigona (ibid.) found that WP7 was not amenable to contextualisation.

It is, however, necessary to highlight the fact that enacted public policies embody the context of their formulation which is sealed/coded behind the compromised texts, dominated by the discourse of the most powerful at the time. Any policy text is, therefore, a representation of policy actors' agreed compromises, that, however, do not guarantee the smooth implementation even though the context of formulation impacts on the implementation (Osman, 2002; Rivzi & Lingard, 2009; Knoepfel et al., 2011). Neglecting this aspect when evaluating a policy's stated objectives in comparison to its actual implementation can create a significant gap. This oversight may lead to a misdiagnosis of the problem, potentially triggering a cycle of interventions that fail to address the underlying issue effectively.

This research sought to understand inherent WP7 formulation flaws and establish their impacts and contributions to WP7's failure and, to ultimately propose guidelines for the review and reformulation of the policy to address the problem. Not comprehensively understanding the causes of WP7's failures may be tantamount to a misdiagnosis of the problem, thereby leading to interventions that do not address the real problem. Such a situation may create an endless cycle of interventions that lead to continuous failure, given the fact that the real problem would not have been addressed. The interrogation of the WP7 and the context of its formulation conducted in this study was undertaken through multidimensional perspectives of the policy, which is, looking at the policy from its process, texts, and discourse perspectives.

1.4 RESEARCH AIM, OBJECTIVES AND QUESTIONS

This section outlines the research aim, questions and objectives of the study.

1.4.1 Research Aim and Questions

This research aimed at developing guidelines for the review and reformulation of the South African policy on e-Education, referred to as White Paper Seven (7).

The following main research question guided the study:

How has the WP7 formulation context affected its quality and implementation that is necessitating the development of guidelines for its review and reformulation?

In order to answer the main research question, the following sub- questions were deemed relevant:

- 1) What socioeconomic and political context factors led to the formulation of WP7 and how might they have influenced WP7 implementation failure?
- 2) What were the fundamental ideological views of the key role-players regarding the integration of ICT in education and how did they influence and contribute to the policy failure?
- 3) How did the process of WP7 formulation influence its text, process, and discourse perspectives, to the extent of eroding its communicability and contributing to its widely reported implementation failure?
- 4) How can WP7 be reformulated for an effective implementation going forwards?

1.4.2 Research Objectives

In view of the research aim and the formulated research questions, the following are the objectives that this study aimed at attaining. In other words, this study sought to:

- 1) Understand the socioeconomic and political context that led to the agenda setting and formulation of WP7;
- 2) Establish the extent to which the context of formulation influenced WP7's reported failure;
- 3) Understand how if at all dominant views and ideas found expression in the policy text and discourse;
- 4) Establish how some of the ideological views of key WP7 formulators/ actors contributed to its reported failure/ challenges;
- 5) Identify, both, key policy actors that influenced the formulation of WP7 and their views and ideas on "e-education/ ICT integration";
- 6) Understand the process of WP7 formulation;
- 7) Establish the influence that WP7 formulation process had on its as text, process and discourse;
- 8) Ascertain of the level of communicability of WP7 with regard to its comprehensibility, sincerity, truthfulness and legitimacy;
- 9) Establish the influence/ impacts of WP7 formulation process on its implementation;
- 10) Make a substantive contribution towards the redevelopment of the WP7 on e-Education by reviewing and developing guidelines for the cause.

1.4.3 Linking Research Questions and Objectives

In alignment with the aim of the study and the research questions, the objectives of the study were linked to the research question. Table 1.1 below depicts, for each sub-question, the investigative action(s), the objective(s), and the instruments used.

Table 1.1: Research questions linked to research objectives.

Main Research Question		
<i>How has the WP7 formulation context affected its quality and implementation that is necessitating the development of guidelines for its review and reformulation?</i>		
Investigative action/s	Objective/s	Instrument/s
Research Sub-Question 1: What socioeconomic and political context factors led to the formulation of WP7 and how might they have influenced WP7 implementation failure?		
Identify and determine the existing legislation, educational policies, political agenda, goals, etc. that were current at the time of WP7 inception.	<ul style="list-style-type: none"> To understand the socioeconomic and political context that led to the agenda setting and formulation of WP7. To establish the extent to which the context of formulation influenced WP7's reported failure. 	<ul style="list-style-type: none"> Document analysis; Interviews.
Research Sub-Question 2: What were the fundamental ideological views of the key role-players regarding the integration of ICT in education and how did they influence and contribute to the policy failure?		
<ul style="list-style-type: none"> Establish who the key policy actors were. Determine their political/educational/commercial standing and interest in WP7. Investigate their ideological views regarding the integration of ICT in education. 	<ul style="list-style-type: none"> To understand how, if at all, dominant views and ideas found expression in the policy text and discourse; To establish how some of the ideological views of key WP7 formulators/actors contributed to its reported failure/challenges; To identify key policy actors that influenced the formulation of WP7 and their views on "e-Education/ ICT integration". 	<ul style="list-style-type: none"> Document analysis; Interviews.
Research Sub-Question 3: How did the process of WP7 formulation influence its text, process, and discourse perspectives, to the extent of eroding its communicability and contributing to its widely reported implementation failure?		
<p>Analyse WP7 in terms of:</p> <ul style="list-style-type: none"> Text Process Discourse <p>Apply validity tests:</p> <ul style="list-style-type: none"> Clarity/comprehensibility Truth Sincerity 	<ul style="list-style-type: none"> To understand the process of WP7 formulation; To establish the influence that WP7 formulation process had on the three policy's perspectives, including the text, process, and discourse perspectives; To establish the influence of WP7 formulation process on its implementation; To establish the level of WP7 communicability in relation to its comprehensibility, sincerity, truthfulness and legitimacy. 	<ul style="list-style-type: none"> Document analysis; Interviews.
Research Sub-Question 4: How can WP7 be reformulated for an effective implementation going forwards?		
Use data findings and lessons drawn from WP7's context of formulation and literature on PPM to develop guidelines for the review and reformulation of WP7	To make a substantive contribution towards the redevelopment of the policy on e-Education.	<ul style="list-style-type: none"> Data findings; PPM literature; Web-based application

1.5 THEORETICAL CONTEXT OF THE STUDY

This study was theoretically premised on several theories that gravitate around the notion of policy as a process, text, and discourse (Lingard & Rivzi, 2009). They include:

- 1) The institutional theory of public policymaking (ITPPM);
- 2) The rational theory of public policymaking (RTPPM); and
- 3) The theory of constraints (TOC).

The three notions of public policies and the three theories applied to the study find expression in the conceptual framework (CF) of the study which forms the backbone of the study by tying all its sections together. The use of an amalgam of theories was based on advice from Anyebe (2018: 8) who advances that "... it is wise not to be bound too dogmatically to one approach. A good rule for the policymaker is to be eclectic and flexible, and to draw from theories that seem most useful for the satisfactory and fair-minded description and explanation of policies". The following sections provide a brief count of each of the theories.

1.5.1 Institutional Theory of Public Policymaking

It is necessary to use aspects of the Institutional Theory of Public Policymaking (ITPPM), following the literature's contention that public policies do not operate in a vacuum. They are instead conceived, formulated, and implemented within certain political and administrative systems embodied by existing institutions that have rules and regulations (Anyebe, 2018; Venter & Landsberg, 2007). Regardless of their sphere of operation that can be inclusive of the entire public space, each of them is situated within an institution that is a custodian of such specific policy. As such, they ought to be aligned with the rules and customs of the host institutions. Institutional Theory of Public Policymaking advocates for policy alignment to institutional rules, standards, and routines that are intrinsic to the institution's legitimacy and form the foundation for the organisation's decision-making process (Scott, 2004; Lammers & Gracia, 2017; Anyebe, 2018).

1.5.2 Rational Choice Theory of Public Policymaking

The Rational Choice Theory of Public Policymaking (RTPPM) is grounded in the concept of maximum social gains that give full powers to policy actors to make policy choices (Anyebe, 2018; Hanekom, 1987). While at first glance the RTPPM may not have been found to be appealing in the context of post-apartheid policy formulation, in practice, policies are often considered based on their cost-benefit value. RTPPM promotes the weighing of different alternative solutions. It resonates with the central notion of public policies, i.e., policy as

process, texts and discourses embodied by democratic principles.

1.5.3 Theory of Constraints

The drive and need for change that characterise this study informed its grounding into the Theory of Constraints (TOC) which to a degree conceptually and practically epitomises system *change* (Sabbaghi & Vaidyanathan, 2004; Youngman, 2009; Şimşit et al., 2014; Mabin, 2015) that this study believes can be applied in the review and reformulation of WP7. Alongside the ITPPM and RTPPM, the TOC is an integrative aspect of the conceptual framework (CF) of the study. It particularly finds expression in the context of practice (CP) of the CF and more so in its evaluative section which feeds back to the context of influence (CI), thereby affirming the cyclic perception of the policymaking process.

The Theory of Constraints (TOC) has existed for more than three decades, through which it has evolved drastically and has been used in many sectors for improving systems performance. It is a methodology adopted to determine the most important limiting/constraining factors that hamper the achievement of goals and to then address the limiting factors systematically to pave way for set goals to be achieved. Şimşit, Günay, Vayvay (2014: 930) describe the TOC as, "...a management philosophy which is focused on the weakest links in the chain to improve the performance of systems".

1.6 OVERVIEW OF THE LITERATURE

The choice of the literature reviewed for the study was informed by the CF, which is theoretically grounded in the notion of public policy as process, text, and discourse. The review of the literature commences with the context and process of public policy formulation (PPF). Following the dictates of the CF, the context of policy formulation is discussed and presented in a manner that follows the structure of public policymaking which is linear and cyclic at the same time. In its linear representation, the process is thought to unfold from one context to the other. That is, from the context of influence (CI) to the context of text production (CTP), then the context of practice (CP). The fact that the latter (CP) feeds back to the CI for policy improvement and adjustment, justifies its cyclic representation. The literature review further presents and discusses accounts and contentions on some key considerations of public policies including "symbolic" policies. According to Rivzi & Lingard (2009: 8) symbolic policies are distinguishable by their lack of "consequence materials" (lack of dedicated resources including financial and lack of human capital resources). Such policies, however, have milestones and timebound targets which naturally have no prospect of being achieved.

The next issue explored by the literature review revolves around the understanding of the socioeconomic and political context of WP7 formulation era. Besides the well-publicised socioeconomic hardships of the time and the aftermath of post-apartheid's political complexities, the literature review discusses the three discourses that were prominent during the period. They include: (a) the global discourse on ICT integration in education which South Africa could not be indifferent to in view of the agenda of the time (equity, justice and redress); (b) the discourse of curriculum change that called for type of curriculum that is centered on imparting, in learners, competitive and critical thinking attributes, able to facilitate their personal growth and the growth of the country at large; (c) the discourse of HIV/AIDS that created an atmosphere of fear in the light of the projected loss of teachers, hence the need to proactively find solutions to such, ahead of time.

1.7 OVERVIEW OF THE RESEARCH METHODS AND DESIGN

The research methodology, methods and design of the study were informed by insights from Creswell (2014). In the light of the latter, it became clear that the study had to be methodologically an interpretive study, anchored and underpinned by the post-positivism approach to research.

The decision to underpin this study under the post-positivism paradigm was informed by the manner in which the research question was formulated and the type of knowledge sought. This further informed the study's interpretative and descriptive explanatory methodology, which in turn premised its qualitative approach and methods. The latter (qualitative approach) was premised by the historical phenomenological strategy given the historical nature of the study. Qualitative methods directed the technique of data collection and analysis. Data was collected through semi-structured interviews and document analysis. Document analysis was conducted through a critical discourse analysis (CDA). The CDA was aligned to Habermas Theory of Communication Action (TCA) – Validity Claims (VC). Chapter four of this report provides a detailed account of all the above.

1.8 SIGNIFICANCE AND CONTRIBUTION OF THE STUDY

1.8.1 Significance

While some of the factors of WP7's failure are documented in various value driven studies, these factors may be incomplete as there is no study that has interrogated the policy itself. This is on the backdrop of usual inherent policy contradictions and conflicts that are often and tacitly sealed in the compromised policy texts while still having the potential to arise during implementation and impede the realisation of the policy goal(s) (Lingard & Rizvi, 2009). Not fully understanding all the causes of WP7 failure represents a gap that can be tantamount to misdiagnosis of the problem and consequently miss-interventions.

The significance of this study, therefore, lies on the fact that the study adds an additional cause of WP7 implementation failure in addition to those already established by previous studies. The contribution has the potential to address one of the fundamental problems that might have contributed to WP7's implementation failure. The study provides an opportunity for further interrogation of the policy (WP7) and relevant recommendations for its readjustment (which is paramount for its successful implementation going forward).

1.8.2 Contribution

The contribution of this study is twofold:

- 1) Since WP7 continues to be the only regulatory framework for the integration of ICT in education in SA, the findings and recommendations could assist the sector to avoid achieving the same undesirable results in relation to e-Education, as has been the case since the publication of WP7 in 2004. For as long as policy formulation flaws remain unearthed and not dealt with accordingly, continued failure will persist due to the misdiagnosis of the problem.
- 2) This study makes a significant and major contribution to the field through the development of guidelines for the review and reformulation (GRR) of WP7. The guidelines include a toolkit in the form of a web-based application to assist with the operationalisation of the newly reviewed and formulated WP7. The use of the Theory of Constraints (TOC) to review and reformulation of WP7 could be explored in future instances of policy review.

1.9 CHALLENGES AND LIMITATIONS OF THE STUDY

1.9.1 Challenges

The researcher encountered challenges and limitations that were beyond his control. For example, the data collection was undertaken during the COVID-19 lockdown period. COVID-19 context severely challenged the planned face-to-face interviews; thus interviews were conducted telephonically and via online conferencing tools. This prevented personal human interactions that are useful for a range of reasons (such as facial expression and body language) as noted in research literature. Atieno (2009: 14) contends that “human behaviour is significantly influenced by the setting in which it occurs”. Not having the participants in the face-to-face planned setting may have influenced their behaviour, given the absence of some body language and facial expression and the actual human interaction. This, therefore, may have constituted a challenge that the researcher has to deal with. The researcher was however able to adapt and adhere to stimulating conversation and asking probing questions.

Another major challenge was time lapse between WP7’s formulation (2004), its targeted completion (2013) and the time of conducting this study (2019 – 2023). Due to the time lapse factor, it was difficult to get hold of some of the key actors who were involved in the WP7 formulation process. Furthermore, some of the respondents did not remember some of the facts or processes that took place. The fact that the researcher had an opportunity to work in all the three levels of the education system (school, province and national) served as a mitigation tool, given the fact that they gained some insights from their immersion into the culture of the organisation (Atieno, *ibid.*)

An additional challenge was the inability to access some of the key documents, such as handwritten notes by policy formulation actors and departmental memos pertaining to the formulation of the policy. The quality of the analysis, including the framework used for such analysis to detect or establish corroborations between some of the contentions made by participants to the study, became a key mitigating factor to offset this challenge.

1.9.2 Limitations

This study sought to understand the socioeconomic and political context that prevailed during the period of WP7’s formulation. This was with view to establishing how such contextual factors could have influenced both, the formulation process, and the policy content, and to further ascertain whether these factors were directly linked to reported implementation failures.

As such, the scope of the study was limited and excluded other factors such as interrogating the actual implementation phase which in most instances informs the policy outcome. While seeking to understand a new dimension on the causes of WP7 failure, the study was purely limited to the policy perspective. The researcher did not interview political administrative authorities (in the context of the basic triangle of policy actors, see figure 2.3), thus leaving out key actors (key informants). This represented a further limitation which could have enhanced the quality of data collected and provide another perspective of the study.

Another limitation relates limitations associated with qualitative studies, including the fact that the study's rigor and confidence are expressed from multiple realities given the fact that respondents brought their own subjective realities into the data. The researcher had to be cautious of this so as not to distort the research findings.

1.10 OUTLINE OF THE STUDY

This study is comprised of seven (7) chapters that include the following outlines:

1.10.1 Chapter One: Introduction and Background

This chapter introduced the study by laying its background, as well as outlining its context and rationale with a view to paving the way for the articulation of the research questions, aim and objectives and an overview of the research methodology. The chapter further elaborated on the study's theoretical context from which the conceptual framework of the study was generated. The chapter also provided an overview of relevant literature. It also identified the study's key contributions, challenges, and limitations.

1.10.2 Chapter Two: Literature Review

The focal point of this chapter is the literature on policy development that encapsulates the notion of policy as process, text, and discourse, through a process that involves three contexts of policy formulation. The contexts include: (1) the context of influence (CI) through which power relations are at play for the setting up of the agenda, in the context of limited resources competed by any other able and deserving policy problems; (2) the context of text production (CTP) which is the actual context of policy formulation and production. An important context that determines, from the onset, the policy outcome as it is through it that the legal basis of the policy, together with the required resources and the identification and management of the target groups are determined. This is in addition to establishing the link that should exist between implementing agents and other policy actors and factors; (3) the context of practice (CP) which,

not only, deals with the actual implementation of the policy but also its evaluation, key for the policy review and readjustment.

The section on policy development is concluded by text on key public policy considerations. The section elaborates on the two types of public policies and their differences. They include symbolic and material consequences policies. The chapter further engages with the literature on dominant discourses relating to the time of WP7 formulation, inclusive of the year 1999 to 2004.

1.10.3 Chapter Three: Conceptual Framework

Chapter three presents the conceptual framework of the study. It provides, the overall rationale of the CF and its generative theories. This includes the critical discourse analysis which forms an integrative part of the CF.

1.10.4 Chapter Four: Research Methodology and Design

In chapter four the research methodology and methods are described in detail. The chapter commences by outlining the researcher's positionality vis-à-vis research, which has a bearing on the manner in which the research question was formulated and is indicative of the type of knowledge to be generated by the research. Based on the type of knowledge sought by this research in relation to the research questions outline in chapter one, chapter four contends that the study is interpretive in nature and underpinned by the post-positivism approach to research. In terms of the research methods, data collection and management, the study follows a qualitative approach, grounded by a historical phenomenological strategy, while being descriptive-explanatory in its design, following the study's need for descriptive answers to the research questions. The framework for analysis was informed by Critical Discourse Analysis (CDA), especially the Habermas Theory of Communicative Action (TCA) - Validity Claims (VC).

1.10.5 Chapter Five Findings of the Study

The findings of the research are presented in Chapter five. They are grouped into two major themes that emerged from the data analysis. The themes include: (1) the influence of the socioeconomic and political contexts on the formulation of WP7, and (2) White Paper 7 (WP7) and the ideal speech (validity claims). The first theme of findings reveals WP7 formulation's flaws that were facilitated (as the study found) by the socioeconomic and political context of the time of its formulation and predisposed it to its widely reported failure to reach its goal and set objectives. The second theme of findings, however, reveals that WP7 failed the validity claim tests

1.10.6 Chapter Six: Discussion of Findings

This chapter adds on to the analysis provided in chapter five (5). Considering the fact that the discussion gives meaning to the findings, the structure of the chapter mimics the structure of chapter five based on two major themes, including (1) the influence of the socioeconomic and political contexts on the formulation of WP7, and (2) White Paper 7 (WP7) and the Ideal Speech (Validity Claims). It is this chapter that lays the ground for chapter seven.

1.10.7 Chapter Seven: Contribution, Recommendations and Conclusions

Chapter seven presents the contribution, recommendations, and the conclusions of the study. It proposes the major contribution of the study in the form of guidelines for the review and reformulation (GRR) of WP7. In addition to the GRR, the research proposes the use of a web-based application toolkit for the operationalisation of the newly reviewed and reformulated WP7. The GRR finds expression in the conceptual framework (CF) of the study, particularly its context of practice (CP) - evaluative section which facilitates the feeding back to the context of influence (CI) for the readjustment and reformulation of the policy. Further recommendations include those related to policy issues and the possibility of further research arising from this study. The chapter ends with conclusive notes that give a succinct summary of the research.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The African National Congress (ANC)—the ruling party which came into power following the historical 1994 first democratic election in South Africa—embarked on a transformative policy formulation process that involved all spheres of life, including education. The politically driven policy developments process was mainly aimed at tackling the inequalities imposed by the apartheid system. The exercise (policy formulation process) carried the hallmarks of democratic systems, inclusive of citizen participation. As such, these policies were prone to high level negotiations amongst policymakers/ actors, resulting in compromised policy documents that were riddled with tacit ideological contradictions and tensions. Hammett and Staeheli (2013) argue that post-apartheid policy contradictions resulted from the dilemma of either framing these policies based on the redress perspective or keeping the pragmatic approach by adopting instantaneously the neoliberal policy position to ensure global competitiveness and relevance. This was a balancing act between the morally relevant need for an equitable society needed for all citizens and the awareness of the danger of placing the country in irreversible financial turmoil in the case of a welfare state.

Any envisaged successful implementation of compromised policies requires, however, a thorough understanding of their context of formulation to grasp the nature and the complexity of the compromises made. While Rivzi and Lingard (2010: 15) argue that “...policies exist in context [and] have a prior history, linked to earlier policies, particular individuals and agencies”, Neiman and Stambough (1998) stress the fact that embracing democratic policymaking is not on its own an assurance of the attainment of policy outputs and outcomes. On the contrary, it contributes to policies’ intrinsic ideological contradictions that may serve as a hindrance to the attainment of set objectives.

In view of the study research questions, aim and objectives, this literature review sought to understand the socioeconomic and political context of WP7 formulation, the orthodox policy formulation process and all the dynamics surrounding such process. That is, understanding the formulation and existence of public policies from their three perspectives: policy as *process*, policy as *text* and policy as *discourse*.

In other words, the choice of the literature reviewed in this study was to a large extent informed by the study’s aims and objectives, the research questions and study methodology. The approach informed the grouping of the literature review into the following three sections:

- 1) The context and process of policy formulation;
- 2) The socioeconomic and political context of South Africa (SA) during the period of WP7 formulation (key for the understanding of the causal relationship between the context of policy formulation and its implementation thereof);
- 3) The summary of the literature review.

2.2 THE CONTEXT AND PROCESS OF POLICY FORMULATION

The context and process of policy formulation and development is always a complex enterprise as it takes into consideration matters pertaining to what a policy seeks to address which includes the determination of key policy actors and the political, sociocultural, and economic context (Ball, 1993; Rivzi & Lingard, 2010; Ball et al., 2011; Cahn, 2012). Simons, Olssen and Peters (2009 citing Coombs 1970)—contend that there is always an interplay between politics and policies throughout the process of policy development even though the policy under development might not be about politics per se. It is in this context that Osman (2002), following policy scientists' conception of public policy as a process rather than just as text and discourse, contends that *the-process-nature* of public policies is justified by their disposition to negotiations and compromises which substantiates public policies' political inherency. Gumede (2008: 8) further argues that "...political dynamics significantly, at least intuitively, impact on public policy or rather, they would inevitably have some role".

The principal stages of any public policymaking process include the following, although the number of stages sometimes varies (Barkenbus, 1998; Ozga, 2000:2; Howlett and Ramesh, 2003; Lall, 2007; Jann and Wegrich, 2007; Knoepfel et al., 2011; Benoit, 2013; Giorgi, 2017):

- 1) *Problem identification* (PI) stage through which the social problem, for which the formulation of a policy is sought, is clearly identified;
- 2) *The Agenda-setting* (AS) stage that involves power relations, dynamics, and dominance, to the extent of influencing the context and the determination of agenda pertaining to the actual formulation of the policy;
- 3) *Policy formulation and Text production* (FTP) stage: constituting the actual context of policy formulation and the eventual text production;
- 4) *Policy Implementation* stage (IS) that constitutes the context of practice which speaks to the actual realisation of the policy goal(s) and objectives. In other words, the implementation stage encompasses the enactment of the policy; and

5) *Policy evaluation* (ES) stage which assists with the assessment of the policy accomplishments, including the policy impacts in terms of its outputs.

Since there is no firm agreement amongst policy experts and analysts on the number of policymaking stages, Knoepfel et al. (2011: 31) propose five questions for policy developers and analysts to consider when dealing with the matter. The five questions are noted in Table 2.1 below, adapted from Knoepfel et al. (2011).

Table 2.1: Sequences of a public policy: Adapted from Knoepfel et al. (2011)

Policymaking context	Context of Influence (CI)		Context of Text Production (CTP)	Context of Practice (CP)	
	1 st phase	2 nd phase	3 rd phase	4 th phase	5 th phase
Terminology	Problem Identification (Universal-Institutional Agenda)	Agenda setting (Decision Agenda)	Formulation and adoption of the policy programme	Policy implementation	Policy evaluation
Analyst's main questions	How is an awareness of the problem reached?	What are the factors that will make the government act in response to the problem?	What are the solutions proposed and accepted by the government and parliament? On the basis of which processes are these solutions formulated?	Have the decisions of legislature and the government been implemented?	What are the direct and indirect effects of the policy?
Content	Glancing the Universe Agenda, sifting for Systemic and eventually for the Institutional Agenda	Sifting the Institutional Agenda for the Decision Agenda	Definition of the 'causality model'	Application of selected solutions	Determination of eventual policy effects
	Problem perception Definition of the problem and identification of possible causes	Outline and formulation of causality model	Definition of suitable and acceptable solution(s) to the defined problem	Action of administrative implementation agents	Evaluation extent of impacts, effectiveness, efficiency, relevance, relative to the original problem
	Representation of the problem	Responses of public powers to problems recognised as being the necessary object of a policy	Filtering between ideal solutions and available resources		
	Request of public action		Selection of instruments		

These stages of policy formulation can be grouped into three distinct but interrelated contexts that include:

- 1) The *context of influence* (CI), inclusive of both the problem identification stage and the agenda setting;
- 2) The *context of text production* (CTP) that encompasses the formulation stage and the actual production of the policy text; and
- 3) The *context of Practice* (CP) includes the implementation and the evaluation stages.

Figure 2.1 below outlines the three contexts of policy formulation:

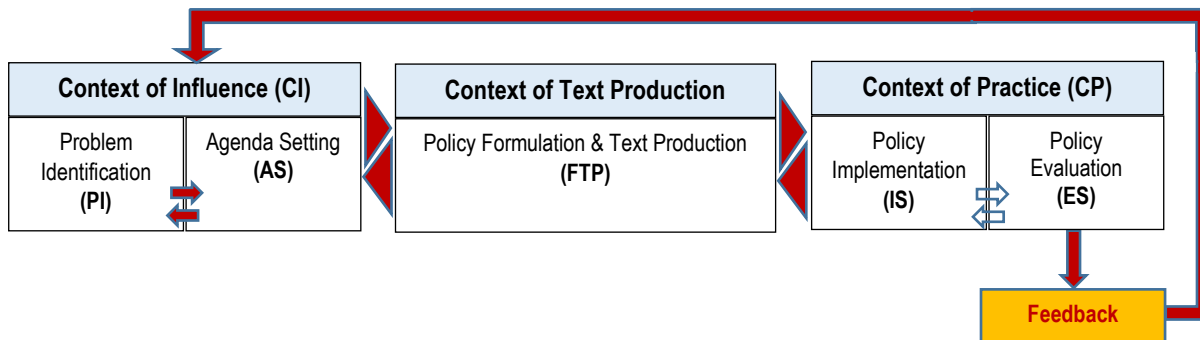


Figure 2.1: Policymaking process as linear and cyclic

The process is conceptually *linear* (from the CI to the CP, having passed through the CTP) while *iterative* or *cyclic* within and between contexts (Bowe et al., 1992; Bridgman & Davis, 2004). The literature contends that this representation (linear or/ and cyclic) is just an approach “... used to plan and analyse the different phases of policy development” (Giorgi, 2017: 13). It is in this context that some researchers contend that the process of policymaking is not linear, per se, nor it is cyclic (Young & Quinn, 2002; Knoepfel et al., 2011) as in practice some stages may run concurrently or they may run either in “... inverse order or in a rapidly skirted manner” (Benoit, 2013: 1). Muller (1990: 33), for instance, suggests that the sequential nature of policymaking should not be read in its literal form as it is just a form of representation that gives meaning to “...a continuous flow of decisions and procedures” while at the same time having some element of sequence. According to Knoepfel et al. (2011) the linear or cyclic representation should only be construed as symbolic representations aimed at providing an easy explanation on the decisions taken in the context of a policy.

Overall, the theoretical status of the policy cycle framework has been challenged over the years, even though the process has continued to be utilised by policymakers and analysts (Jann & Wegrich, 2007). As a result of the socioeconomic and political context of policymaking, which involves high levels of dynamism and continued negotiations unfolding throughout the policy discourse, conceptual shifts are evident (Birkland, 2019; Hall, 2018). According to Ozga (2000:2), a policy is not just the printed product, but it is also the process that is discursively negotiated by different actors taking into consideration the political, sociocultural, and economic contexts. Ball (2015) contends that the iterations between the context of practice (CP) and the context of influence (CI) leading to policy reformulation “... is not always linear and rational”. Instead “... policy work is often a piecemeal process of ‘fixing’ problems”, hence the within context and between contexts back and forth or loops.

In line with Figure 2 (above) which depicts the five stages of policy formulation and further shows how they may be grouped into the three contexts of policy formulation, the following sections elaborate more on each of the contexts.

2.2.1 Policymaking: Context of Influence

The context of Influence (CI) encompasses both, the problem identification (PI) and the agenda-setting stages which are discussed below.

2.2.1.1 Problem Identification Stage

By virtue of being the stage through which a collective social problem needing collective or public solutions is identified, this is a critical stage in any policy formulation process (Theodoulou & Kofinis, 2004). Knoepfel et al. (2011) consider this stage as the one that triggers a collective need for which the whole policymaking process is to unfold. Selden and Helms (2006: 163) see this stage as the one through which the identified problem(s) is/are "...transformed into policy inputs". It is, through this stage that the state engages in setting up a policy through the identification of any matter at the origin of "... social disputes and conflicts" and in order to set "... the rules of the game" to solve the problem (Offe, 1984:106 in Ball, 1993: 13). According to Bacchi (2009: ix), "...it is important to make the problems implicit in public policies explicit, and to scrutinise them closely", noting that the assumption is that they are implicit under the impression that their nature already symbolises the desire to change "something [that] needs to change".

For Jann and Wegrich (2007), the recognition of a policy problem serves as the genesis of policymaking. Birkland (2019) contends that the identification and recognition of a policy problem is a paramount and political, as it is directly linked to a political decision which affirms such a problem as a policy problem. Knoepfel et al. (2011) further argues that the ability to clearly identify and articulate a potential social problem needing public attention is already a key determinant in the search for possible solutions and envisaged outcomes. Researchers are, however, unanimous that such identification of the policy problem should be a result of a consensual agreement amidst different actors' representative of different interest groups (Knoepfel et al., 2011; Birkland, 2019; Ralarala, 2019).

According to Knoepfel et al. (2011), the consensual agreement for the PI should be the result of a commonly constructed, understood, and accepted definition of a public problem that is to be a subject of policy formulation. Selden and Helms (2006:7) contend that "...policy begins with a situation that people see as a problem", inclusive of "... the perceptions, representations, interests and values of the actors concerned on an individual basis or as part of organised groups" (ibid: 7).

It is in this context that Knoepfel et al. (2011) argue that a public problem is naturally a political problem that has emanated from civil society concerns, discussions, and debates. Garraud (1990: 20)—also quoted by Knoepfel et al. (2011)—proposes the following three conditions for a social problem to graduate to the status of public policy problem:

- 1) “the constitution of a demand emanating from particular social groups”;
- 2) “the development of a controversy or public debate”; and
- 3) “The existence of a conflict between organised social groups and political authorities”.

The inscription of an identified public problem into the agenda-setting for an eventual policy formulation to address the problem requires that the following three conditions be met or fulfilled (Kingdon, 2011; Torres, Vargas & Paavola, 2020):

- 1) The recognition of the problem by policy actors as a public problem;
- 2) The availability of solutions to the problem;
- 3) Political acceptance of problem.

Overall, Knoepfel et al. (2011) believe that there must be an appreciation, realisation and an affirmation of a desired state of affairs that the collective wishes to be at. Such desired or wished for state of affairs have to be compared with the current state, with a view to determining and appreciating the material difference that exists and how it is detrimental to the concerned parties. The realisation of the difference between the two states of affairs and harm of the difference are not sufficient to justify the formulation of a public policy to deal with the matter given the fact that not all public problems are subjects of public policy enactment (Knoepfel et al., 2011). It is here where the political dimension comes into play through the political processing of the problem at hand and also its prominence in public discourse and the media. The media, according to Cahn (2012), controls the public discourse to the extent to defining the social reality and policy agenda and its outcome, thereof. In the same vein Jann and Wegrich (2007) advance that the media creates the urgency of matters to which it is inclined to, based on its own ranking. Thereafter it presents these matters as reality and push and influence for their inclusion into the public agenda for eventual policy formulation.

Key to any identified public problem to get attention for policy formulation includes, amongst others, the clarity and unambiguous way the problem is defined and articulated. Subroto (2012: 5) refers to this as the “final indicator” of the problem identification stage which is expected to provide the “sense of broad agreement in society”. This final indicator outlines, amongst others, the negative effects that the current state of affairs is causing on the possible and potential

identified policy beneficiary actors. It is in this context that research points out five characteristics that must be considered, in articulating and arguing for the inclusion of a public problem into agenda-setting for an eventual policy formulation. The five characteristics include the following:

- 1) **Severity of the identified problem** (Knoepfel et al., 2011): This is about demonstrating the imperative nature of the problem. Mortensen (2014) contends that the measurability and severity of the identified problem have the potential to entice public policy actors and the state to attend to the problem given societal expectations and the problem visibility.
- 2) **Perimeter of the identified problem:** This is about demonstrating the degree to which the affected actors are negatively impacted and affected by the identified social problem. The considerations to be given to this dimension include the linkage between the affected actors, their political weight and how visible they are, politically. Knoepfel et al. (2011: 133) believe that the "...dimension of a problem is closely linked to its public visibility". They further highlight the fact that politically, public policy actors are likely to be less supportive if the affected actors are limited in number and are also geographically located in the outskirts of the perimeter of public interest (Knoepfel, et al., 2011; Hoornbeek & Peters, 2017);
- 3) **Novelty of the identified problem:** This is about the manner in which the problem is presented or labelled. It is about demonstrating the originality and freshness of the problem, with an understanding that the more public policy actors perceive the presented social problem as new, the higher the consideration of the problem (Knoepfel et al., 2011). According to research, completely new public problems are extremely rare. What matters is how the problem—whether new or old— is presented (Knoepfel et al., *ibid*; Hoornbeek & Peters, 2017).
- 4) **Crisis situation** (Also referred to as "*the urgency of the problem*"): This is a suggestion that the identified social problem should be articulated in a manner that shows crises of some sort but in a very simplistic fashion. A crisis is always likely to get prompt attention from public actors. The cause of the crisis should be identified given the fact that when the cause of the problem is identified, the identification of the target group whose behaviour needs alteration is identified as well (Hoornbeek & Peters, 2017)
- 5) **Problem Qualification:** This is about presenting the problem with supporting data, including statistical data, with funding cost implications, clearly delineated with negative or positive effects. Such a presentation of the problem stands a chance of being listened to (Hoornbeek & Peters, 2017).

The final result of problem identification is the formulation and publication of a green paper. This is a discussion paper that government publishes with the view to elicit public discussion on the matter. It also serves as public consultation document (Subroto, 2012). Table 2.2 below, adapted from Subroto (2012) sums up the problem identification stage of policymaking process.

Table 2.2: Problem identification stage and its contours

Policy Actors	Resource Strategic	Intermediate control	Final Result	Final Indicator
The Government: often represented by an appointed Ministerial task team	<ul style="list-style-type: none"> Perception on the matter Interest on the initiative 	<ul style="list-style-type: none"> Change in perception on the matter and the interest of the interest groups. Change in initiative interest 	Green Paper is published for societal inputs	Sense of broad agreement in society is obtained
Interest groups/ Pressure groups	Opposing perception on the matter	Change in opposing perception on the matter and government interest		
Media	Press coverage on the matter	Perception gap on the matter		
The public at large	<ul style="list-style-type: none"> Opinion discourse on the matter Need of information on the matter 	<ul style="list-style-type: none"> Change in discourse intensity. Information fulfilment 		

2.2.1.2 Agenda-Setting

Linearly, the end of the PI stage gives way to the Agenda-Setting (AS). It is through the AS stage that openness and transparency amongst all actors, including politicians, media, and the public at large, is expected. This suggests, inevitably, the existence of power struggles amongst the actors involved (Turnpenny et al., 2015). According to Birkland (2019), AS is a critical stage through which both the problems and the alternative solutions either gain or lose the attention of public policy actors, as a result of vicious competition amongst actors and/or competing interested groupings. As such, Birkland (ibid: 201) refers to the AS stage as a “campaign” or a “... set of underlying motives or ideals of a particular individual or groups”. Cloete and de Coning (2011) view AS as a process through which civil society draws the attention of government and public actors on a social problem that they think requires the formulation of a public policy. They contend that this stage should be viewed as the policy framework stage for planning, prioritisation of issues needing public policy formulation and also galvanising support in favour of the problem at hand.

Moving from PI to AS is a deliberate attempt to get specific matters tabled on the political agenda. It is during this process that policymakers critically scrutinise issues produced during the PI stage to make decisions on the essence of the matter for the formal and official political agenda (Cook

et al., 1983; Knoepfel et al., 2011). According to Birkland (2019), there are different levels within AS which are depicted by Figure 2.2 below. They include agenda universe, systemic agenda, institutional agenda, and decision agenda.

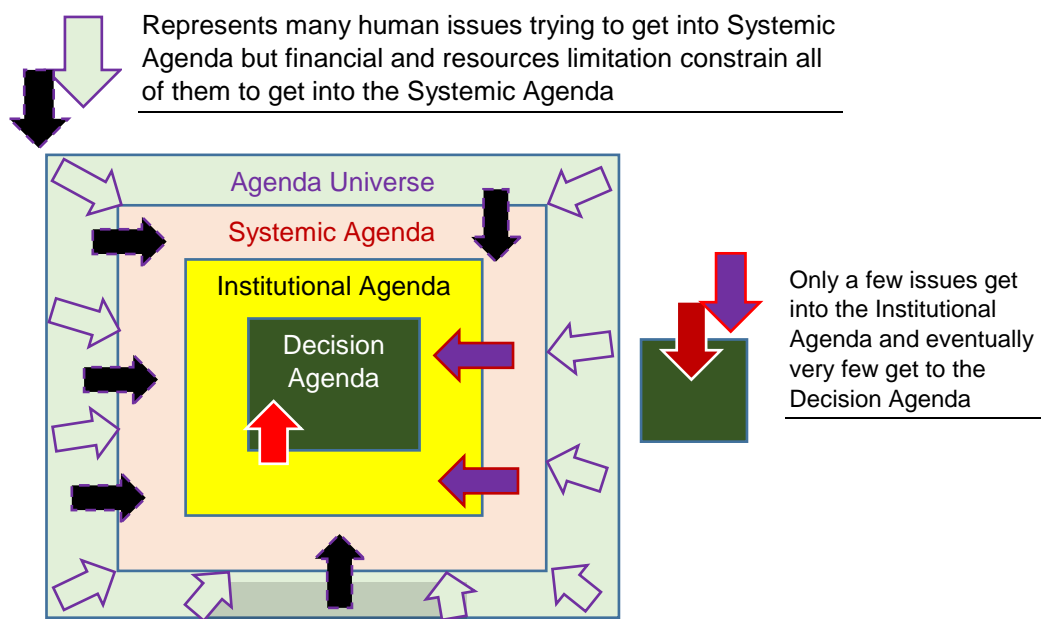


Figure 2.2: Levels within Agenda-Setting, adapted: Birkland (2019:203)

The ultimate destination of such social issues is the decision-agenda. Items that successfully find themselves in the latter (inner square of the Figure 3) are those that are singled out by public actors and “...are about to be acted upon” legislatively (Birkland, *ibid*: 204). To understand how this could happen, we look briefly at the suggested path in Figure 3. That is, from the outer circle square, the *agenda universe* which suggests the limitless universality of social issues that need public solutions.

In fact, items on the systemic agenda are those that would have been sifted from the universe agenda for focused attention to progress onto the institutional agenda. When a particular institution identifies (from the systemic agenda) issues relevant to its mandate, those issues progress to the institutional agenda and can be acted upon at the level of that institution (Birkland, 2019, Kingdon, 2011). The institutional agenda entails the inscription of the social problems needing public attention into the official agenda-setting which according to Birkland (2019) is constrained by resources and the political status of issues. The main White Papers are at this level (Institutional Agenda) of Agenda-Setting. As mentioned earlier, items that reach the decision agenda (inner square) are those that are singled out by public actors and “...are about to be acted upon” legislatively (Birkland, 2019: 204).

Research suggests that in most instances what gets prominence in the decision agenda is contingent on two facts: (a) the fallout of power relations amongst policy actors (Birkland, *ibid*) and, (b) what the media would have shaped (Cahn, 2012). Guo, Vu and McCombs (2012) contend that what the media regurgitate shapes public perceptions, thus it carries considerable weight on what will get onto the decision agenda. A study by Cook et al. (1983: 25), on the influence of the media on judgements, established that "...media presentations influence general judgments of problem importance", to the extent of influencing the "... public views of issue importance". They (Cook et al., 1983) established that governmental policymakers, referred to as "policy elites", were more influenced by media presentations in comparison to their counterparts representing interest groups. The domination of the media's impact on policymakers is further affirmed by a number of studies, including a study by Carpentier (2014: 2). Benoit (2013) validates the assertion by arguing that only issues that are *highly visible* and noticeable in the public arena, which are subject to public discussion, get prominence in the public setting of agenda.

McCombs (2002) defines agenda setting as a channel through which media imparts or imposes its own salient issues to the broader public and ensures that they (issues) are adopted and owned by the public as their own issues, while the policy agenda of politicians is itself influenced by the media's agenda. The following sections elaborate on three types/components of agenda setting (McCombs, 2002).

Components/ Type of Agenda-setting

The components/types of agenda-setting (AS) include: (1) *Media agenda-setting* and (2) *Public agenda-setting*. Each of these is respectively dependent on the mass media news agenda, the public agenda content and order topics and policy responding to media agenda and public agenda.

a) Media agenda-setting

Also referred to as *agenda building*, *media agenda-setting* sums up the efforts and articulations by the media to influence the direction of the policymaking process which according to McCombs (2002) is a lived reality in any public policy making process. This is done through seizing control of the AS in favour of a well-orchestrated narrative and agenda (McCombs, 2002), following the media's networking role between public policies and those entrusted to make them. It includes control and influence of media over publicly elected officials and politicians as the natural interlocutors of policymakers on public issues needing public policy formulation (McCombs, 2002). This situation raises pertinent questions related to the media's narrative presented as public issues/opinion (McCombs, *ibid.*). Some of those questions include: Who really controls the media? Is it true that the media controls

politicians and the elite? Is this a disguised game played by the media, politicians, and the elites to control the masses?

In fact, the media, according to McCombs (2002), is an instrument used by financiers and powerful corporates who own and control the means of production. It (the media) is thus in the control and submission of the ruling elites who are at their genesis purposefully prepared and presented narratives disguised as social concerns needing public policy. Some, however, do not concur with the portrayal of the media as the sinister manipulator of the populations. They, instead, believe that media are credible support to the system, as excellent instruments for the control and conservation of that power. Opposed to this view are those who firmly believe that through mass media the ruling class tacitly imposes its own views on the masses who obediently surrender their powers to the ruling class to dominate them (McCombs, 2002).

b) Public agenda-setting

Mortensen (2014) asserts that beyond media influence, policymakers/public or policy actors also have substantial influence on agenda-setting, to the extent that their influence biases the policymaking process and the outcomes. While it is true that the media influence both agenda-setting and the public at large, clear evidence also points to the fact that the influence of mass media on the public is not a one-directional affair, it is bi-directional or reciprocal (Berkowitz, 1992).

In the light of the above, the importance and how critical agenda-setting is cannot be overemphasised as it is during this stage that power relations amongst different actors are well exhibited (Cloete & de Coning, 2011; Birkland, 2019). Cahn (2012: 200), for example, highlights how congress and parliamentary chairs of committees possess "...disproportionate influence over policy given their power to determine committee agendas". Birkland (2019) on the other hand contends that the power relations' complexity in agenda-setting lies in the fact that different policy actors might be competing for policymakers' attention and consideration to get their issues on the political agenda. The success of media to transfer its own agenda to the public agenda and ultimately to policy agenda is only feasible and possible if an individual's needs for information on a certain topic is congruent with mass media topics. It is during this stage that power relations amongst different actors are well exhibited (Cloete & de Coning, 2011; Birkland, *ibid.*).

Agenda-setting is thus a fundamental and imperative stage of any public policymaking process (Knoepfel et al., 2011). It serves as a context of influence that commences from the problem identification. Cahn (2012: 200)—quoting Lyengar & Kinder (1987)— highlights how certain

pertinent issues of national importance are primed while others of similar importance are ignored on the basis of political considerations [policy actors' intentions] or what the media wants to portray given its ability to shape the reality. The prominence of the agenda-setting stage lies further in the fact that the perceived collective problem(s) is/are filtered and finally acknowledged to be of public interest, thus leading to the formulation of a public policy (Benoit, 2013).

2.2.1.3 Policy Actors

A conceptual definition of a policy actor points to any distinct individual or group of individuals representing a well-defined entity with well-defined values and interests, or a legal consortium or a social group, easily identified by its social grouping (Knoepfel et al., 2011). The authors (Knoepfel et al., *ibid*) are adamant that, even though each policy actor— assembled for the formulation of a particular policy— carries the mandate of the group they represent, they should all support and commit to the common point of interest for which the policy is being formulated.

Selden and Helms (2006: 413) identify policy actors that are linked to phases of the policymaking process, within the context of influence (CI), text production (CTP) and practice (CP). These policy actors include policy “entrepreneurs, policymakers, target populations and winners and losers” (Selden & Helms, 2006: 413). They feature in processes during “inputs” (CI), “production” (CTP), “outputs” and “outcomes” (CP).

The issue of establishing who qualifies to be an actor is an important consideration. According to Knoepfel et al. (2011: 40), one qualifies to be an actor on condition that one belongs to the “... field being studied in so far as his behaviour can be shown to contribute to the structuring of this field”. For Popoola (2016), any citizen or group of citizens may be considered as potential policy actors irrespective of their status of being official or unofficial. Gumede (2018: 8) refers to the unofficial policy actors as “...quasi-autonomous non-governmental organisations ‘quangos’”. Official or unofficial, “... any individual or social group concerned by the collective problem addressed by the policy under consideration is an actor (at least potentially), even if (momentarily) they are unable to undertake concrete action in one or more phases of a public intervention” (Knoepfel et al., 2011: 41).

Concerned by how policy actors ought to be selected, Turnpenny et al. (2015) posit that there are different typologies that may be used for the selection of actors. The model proposed by Howlett (2011) contends that key actors involved in the policy formulation stage should include decision-makers (primarily politicians), knowledge producers, service providers and knowledge brokers. Another optional model postulates that the selection of actors should take into consideration the

location of actors and the level of their individual influence. The latter points to public and private sector insiders and outsiders while the former refers to “core actors” (policy analysts, agencies, official and unofficial policymakers) (Howlett, *ibid*: 33).

Actors involved in policy formulation process are individuals or entities who participate in policy formulation, actively or passively. They include a diverse range, such as government officials, policymakers, experts, interest groups, and stakeholders. Knoepfel et al. (2011: 45) summarise the notion of policy actors through what they refer to as the basic triangle of policy actors. Figure 2.3 below (adapted with permission from Knoepfel et al. (2011: 57)) depicts the basic triangle of policy actors:

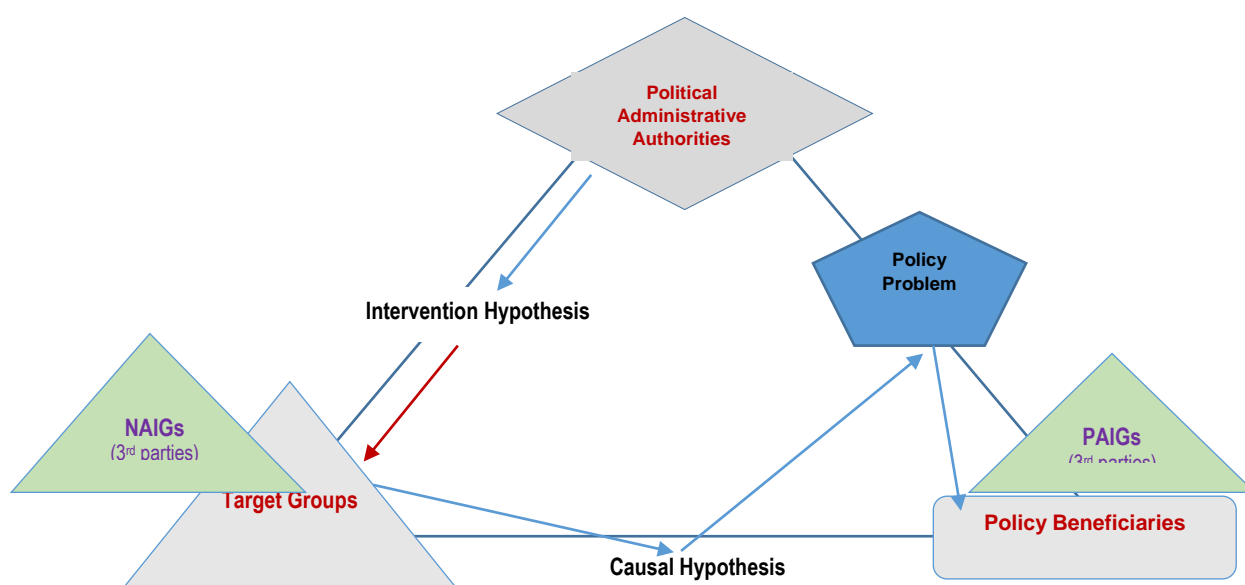


Figure 2.3: Basic Triangle of Policy Actors (Knoepfel et al., 2011).

- a) **Political-administrative authorities:** policy developers and implementers;
- b) **The target group actors:** who may be the cause of the problem for which the policy is enacted but are able to solve it through their behavioural change. Supporting the target group actors, are likely to be the third-party actors who, even though the policy is not aimed at them, may experience the negative effects of its successful implementation; and
- c) **The Policy beneficiary actors:** are those experiencing the negative effects of the problem but cannot change it hence their support for the enactment of the policy and expecting its positive effects. Supporting the beneficiary actors are likely to be the third-party actors who, even though the policy is not aimed at them, may experience the positive effects of its formulation and successful implementation.

Policies are products of intense engagements and interactions involving those referred to as policymakers/policy actors (in a broader sense of the words) who may belong to the public or private sector/non-governmental organisations (Popoola, 2016). While Cahn (2012) refers to these categories of policy actors as formal and informal, respectively, Knoepfel et al. (2011: 41) refer to them as “political-administrative actors” and “socio-economic or socio-cultural” actors, respectively.

The political-administrative actors include (Popoola, 2016):

- 1) *Primary policy* actors who may be legislators, entrusted with the responsibility of making public policies, and
- 2) *Supplementary policy* actors who get their policymaking mandate from the official primary policy actors.

With regards to unofficial actors (socio-economic actors), Knoepfel et al. (2011: 57) unbundle this category into three groups, including the “*target groups*”, the “*end beneficiaries*” and “*third party groups*”. These actors are referred to as non-institutional actors who, regardless of policy being the result of institutional processes, play a critical role of influence in the institutional processes (Cahn, 2012). The following sections outline unofficial policy actors as proposed by Knoepfel et al. (2011):

- 1) **Target group actors:** Individuals or well-structured legally instituted organisations that are considered as the direct/indirect cause of the policy problem. They are referred to as the *target group* given the fact that they are expected to display *behavioural changes* that should be able to impact or facilitate the attainment of the policy’s set objectives. Knoepfel et al. (ibid.) contend that it is the behavioural change that should serve as the trade-off in exchange for some rights from the state or official policy actors.
- 2) **End beneficiaries:** These are actors for which the policy-to-be is enacted. They are the ones who stand to benefit (improved material situation) the most, in the case of successful implementation of the policy or through the attainment of the set objectives. Knoepfel et al. (2011) highlight the fact that given the relatively small numbers of these unofficial policy actors, it is difficult to mobilise and organise them when compared to the target groups. The subtle difference between end beneficiaries and target group actors is highlighted here, one primarily for material gain, and the other for behavioural change.
- 3) **The third-party group actors/ Interest groups:** The third-party group actors are those that represent their own interests that the policy-to-be might unintentionally or

intentionally affect, either positively or negatively. Their support or opposition to the formulation of the policy is therefore informed by how (positively or negatively) their interests will be affected, should the policy be formulated. The way the third-party group is affected may therefore determine their coalition either with the target group or with the end beneficiaries.

In light of the above, Knoepfel et al. (2011) caution policy analysts and policymakers on the potential differences and disputes that might arise between different unofficial actors who participate in the policy formulation on an equal basis yet representing different interests. The identification of the empirical actors and the tacit hypothesis of causality is ultimately to assist policy analysts to detect and disentangle the type of relationship that exists between actors and the extent to which their socioeconomic circumstances will be transformed as a result of successful implementation of the envisaged policy. Failure to identify the hypotheses of causality has been, in most instances, the root cause of some policies' ineffectiveness vis-à-vis what it was intended for. The identification of actors and hypotheses of causality is made possible using the two distinct components of the theoretical construction model that includes *the causal hypothesis* and *the intervention hypothesis* (Knoepfel et al., 2011: 57-58) as depicted by Figure 4 above.

The hypothesis of causality (HC) assists in the identification of the target and beneficiary groups. Knoepfel et al. (2011) recommend that public representatives refrain, where possible, from relying on the same target group actors for critical information. This is to avoid any potential conflict of interests that may obstruct or hinder the capacity of the incentives put in place for their change of behaviour which is key for the successful implementation of the policy. On the other hand, the *intervention hypothesis* (IH) outlines strategies and actual actions to induce change of behaviour from the target groups (TGs) in line with the policy's set objectives. These strategies are actual actions that include concrete (positive or negative) economic incentives offered for negotiations. Part of these incentives may include a collaborative implementation that Salamon (2002) advocates. That is, a strategy that has built-in motivations aimed at enticing the private sector to take a stake in the domains that are traditionally the preserve of government monopoly.

2.2.2 Policymaking: The Context of Text Production

The Context of Text Production (CTP) is the actual context of policy formulation through which both actual policy formulation is conducted and the production thereafter. In contrast with the context of influence, the CTP, particularly its formulation stage, can be construed as an

underworld space. This is due to its requirements for actors with special know-how, inclusive of political and technical skills on the matter pertaining to the policy in making (Howlett & Geist 2012; Turnpenny et al., 2015).

2.2.2.1 Policy Formulation Stage

Policy formulation stage (FS) is one of the critical stages of any public policymaking process (Howlett, 2011). Knoepfel et al. (2011: 151) refer to it as the “*policy programming*” stage. In reference to how critical and important the FS is, Turnpenny et al. (2015: 4) state that “... if the agenda-setting stage is essentially concerned with identifying where to go, the policy formulation stage is all about how to get there”. During this stage, policymakers explore and craft different alternative possible solutions to the identified problem and make them available for consideration (Turnpenny et al., *ibid.*).

Knoepfel et al. (2011: 151) contend that FS comprises of two critical parts including:

- 1) The *political-administrative programme* (PAP) which constitutes “... the legal basis for the objectives, intervention instruments and operational arrangements of the public action”, and;
- 2) The *political administrative arrangement* (PAA) that facilitates administrative decision-making process and all logistics related to the implementation of the policy.

Figure 2.4 below illustrates the above:

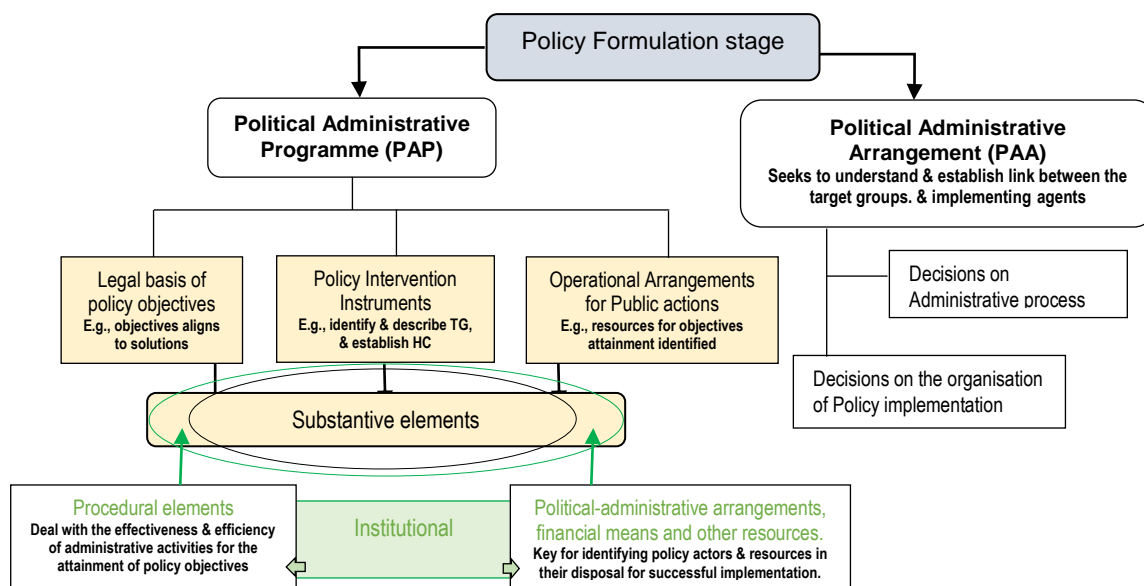


Figure 2.4: Graphical representation of policy formulation stage

The following discussion elaborates on the two main components of the FS, following the model designed by Knoepfel et al. (2011):

1) Political Administrative Programme (PAP)

The political administrative programme (PAP) deals with the legal underpinning of the policy by ascertaining its legitimacy in relation to existing legislation(s). The principal concern of the PAP is to ensure that the policy-to-be and the solution it proposes are located within the legal framework of the law in terms of the policy objectives and the rights and responsibilities of concerned target groups. These are "... the set of regulatory acts and norms that parliaments, governments, and the authorities charged with execution consider necessary for the implementation of a public policy" (Knoepfel, et al., 2011: 151).

According to Knoepfel et al. (2011), there are the three core functions that are attributed to the PAP. They include the following:

- (a) To determine the extent to which the policy objectives are commensurate with the evaluative standard (normative objectives) of the envisaged solution to the problem;
- (b) To ensure that the envisaged tools for reaching policy objectives are identified and their roles and responsibilities established (discerning and describing the target groups, establishing the hypothesis of causality); and
- (c) To understand operational matters such as ensuring a clear identification of resources needed for the attainment of the policy objectives.

There are, however, five constitutive elements of the PAP, which can be grouped into two main sets: (I) the Substantive elements and (II) the Institutional elements (Knoepfel et al., 2011: 153-159). While the substantive elements comprise: (1) the "Concrete objectives", (2) the "Evaluative elements", and (3) the "Operational elements" (instruments), the Institutional elements include: (1) the "Procedural elements" and, (2) the "Political-administrative arrangements, financial means and other resources".

The five elements of the PAP, that are discussed in the following section, give expression to the policy implementation's priorities, usually summed up by an action plan outlining the when, where, how, why and by who.

(I) Substantive Elements (SE) of the PAP:

- (a) **The Concrete Objectives:** This element of the PAP is concerned with the need to clearly define and describe the status of the desired state of affairs to serve as the guiding framework for actions. Knoepfel et al. (2011) contend that the concrete objectives function as indicators of policy effectiveness. The legal underpinning of the concrete objectives of a policy is articulated at two different levels, including the legislative (abstract and higher level) and at the regulatory (concrete, quantifiable and measurable target values) levels. The former includes broader and more general terms as opposed to the latter which provides specific details that are written in an enforceable manner (Kosti, Levi-Faur & Mor, 2019).

The articulation of policy objectives that are concrete, quantifiable, and measurable, functions as the basis for the formulation of effective policy indicators that are to be specific, measurable, achievable, and attributable, relevant and realistic and time-bound, timely, trackable and *targeted* (Knoepfel et al., 2011). It is through the specific, time-bound and clearly detailed regulative directives that the successful policy implementation can be seen. A policy formulated with good intentions will be characterised as being embedded with “material consequences” (Rivzi & Lingard, 2009:8). According to Knoepfel et al. (2011), such policy, because of its confidence and certainty in reaching its set objectives, provides protecting cover to policy beneficiaries. A cover that can be activated, in favour of beneficiaries, should it be that the policy does not substantially provide best solutions to the identified public problems. Knoepfel et al. (2011: 144), however, advance that to avoid legal proceedings arising from a material consequence, policy objectives are often—and intentionally so—written and “defined in administrative directive” not in “legally enforceable form”.

- (b) **Evaluative elements:** Given its literal dictionary meaning, *evaluation* presupposes that implementation has taken place. According to Broc, Oiknomou and Dragovic (2019), evaluation can happen at any stage and time of policymaking and analysis process. It is in this context that Knoepfel et al. (2011) believe that the *evaluative elements of PAP* should form part of policy formulation and decision-making. The argument is that evaluation should not only be conceived as an exercise meant to assess the implementation stage as it can as well form an integral part of policy formulation by means of evaluating each cycle of policy formulation.

The rationale of the evaluative elements of PAP can be likened to laying and outlining the rules of the game before the game is played to keep up with policy objectives. In the context of this study, the determination, measurement, and interpretation of policy effectiveness and the attainment of policy objectives can only be debated and agreed upon prior to the policy implementation or prior to whatever is to be assessed takes place. Otherwise, contend Knoepfel et al. (2011: 156), "... a change in the units of measurement sometimes makes it possible to render 'effective' entirely inefficient policies, without any substantial changes being made". The evaluative element of the PAP has the potential to strengthen the achievement and attainment of policy objectives given that the rules of evaluation and how to go about it are known, well-structured and articulated.

- (c) **Operational elements (instruments):** Knoepfel et al. (ibid.) contend that operational elements/ instruments of the PAP "... best characterise a policy" as they (operational elements) craft and scope appropriate interventions for successful implementation. Inclusive to the appropriate interventions to be taken are interventions related to the policy's ability to change the material conditions of targeted beneficiaries. This change of material conditions of the beneficiaries is contingent/dependent on other interventions, such as those targeting the change of behaviour of target groups.

The operational elements of the PAP as such, play a key role in identifying detailed measures towards the attainment of the policy objectives and through various motivations unlock hindrances posed by target groups and those who might be negatively affected by the implementation of such policy. While there are many forms of motivations used as interventions to unlock the hindrances, Knoepfel et al. (2011: 157-158) propose the following four modes of interventions (not mutually exclusive). These are intended to dissuade the affected parties (target groups) from impeding the formulation of a particular public policy. Table 2.3 below contains the four proposed modes of intervention:

Table 2.3: Interventions Modes: Target group change of behaviour

Intervention	Description
Regulatory Mode	The change of behaviour is obtained through the state imposing some bans while concerned target groups are provided with certain rights in exchange to some obligations imposed on them.
Incentive Mode	Mainly financial payments are used or provided to target groups in exchange to their change of behaviour in favour of the policy formulation and attainment of set objectives.
Persuasive Mode	Target groups are enticed to the policy objectives through high level and strategic persuasion acts.
Direct supply of goods and services	Concerned target groups are lured through the provision of goods and services that, perhaps, they couldn't have access to.

(II) Institutional Elements (IE) of the PAP

- (a) **Political-Administrative Arrangement and Resources:** Following the substantive elements, the Political-Administrative Arrangement and Resources (PAAR) of the PAP constitutes a critical exercise that requires specific skills, knowledge, and experience in the domain that the policy is attempting to provide solutions to (Benoit, 2013). According to Cahn (2012) no desired policy outcomes can be realised in the absence, during the formulation stage, without clearly identifying relevant or key policy actors, implementing actors, and the required and adequate or commensurate resources (including human resources) that should be at their disposal.

In an attempt to demonstrate how important the PAAR are, in terms of their contributions to the policy's ability to attain its set objectives and goal(s), Knoepfel et al. (ibid: 160) - in reference to Kissling-Näf (1997) - state that:

“...unsuitable PAAs [with reference to PAAR] can result in considerable deficits in the implementation of objectives defined in the PAP and, as a result, considerably diminish the scope of its substantive elements. Conversely, a particularly well-tailored PAA can trigger an accelerating effect that results in a faster and more advanced resolution of the problem in one region as compared with another constitutes one of the most sensitive points of a policy”.

They (Knoepfel et al., 2011) contend that, regardless of how quantifiable and measurable policy objectives can be, these attributes can easily be eroded/offset by an ill-informed choice of implementing actors and insufficient resources. It is in this context that research points to the fact that any policy that is to be successful in its implementation cannot afford not to avail adequate and commensurate resources to its cause (Benoit, 2013; Ralarala, 2019).

- (b) **Procedural Elements of the PAP:** The procedural elements of the PAP deal with issues of effectiveness, efficiency, respectfulness, and transparent interactions in all administrative activities that involved the formulation of the policy by involved parties. The latter include, amongst others, policy beneficiaries, interest groups and target groups (Knoepfel et al., 2011).

2) The Political Administrative Arrangements (PAA)

Having established the legislative basis of the policy through the PAP, the PAA are concerned with the policy's political administrative arrangements and seek to understand and establish the link between the policy's target groups (TGs) and existing/possible implementing agents. These administrative arrangements (administrative structures and regulations) are paramount for the support and successful implementation of any public policy (Knoepfel et al., 2011; Benoit, 2013; Ralarala, 2019). They represent and constitute the network of public-private actors that are tasked with the implementation of the policy. Policy network, according to Benoit (ibid.), is an amalgam of public actors, representing naturally the government, and policy experts in the domain the policy is exploring, who are viewed as stakeholders.

The interactions between public and private actors creates a political platform of negotiations and compromises through which various involved policy actors influence each other, hence the democratic nature of policy process (Osman, 2002). Thus Osman (ibid: 38) argues that "...policymaking is a rather a complex dynamic process involving a series of actions and inactions of varieties of groups with varieties of interests at different stages". Regardless of public policies' ideological contradictions which result from intense consultations and collaborations (Rivzi & Lingard, 2009), Kendall et al. (2006) insist that policymakers should not shy away from democratic prescripts that call for collaboration and information sharing. They should instead take advantage of the positive attributes that are inherent in any collaborative policymaking process.

Despite the network of public-private actors, the public actors will always be "... the basic units of [the] PAAs". In terms of participation—throughout all the phases of the policy life cycle—both the public and private actors are on an equal footing and this, in the case of the private actors, is applicable only during the period of their active participation (Knoepfel et al., 2011: 192).

2.2.2.2 Approach to Policy Production and Type of Policies

1) Approach to Policy Production

According to Rivzi and Lingard (2009), the way policies as text are produced determines their production approach. This involves the production of a policy that follows either an incremental or a rational approach to policy production. An Incremental approach to policy production is one that is developed out of previous policies. Therefore, the development and

change involve improving or adapting the policy to the current conditions. For example, Cuban (1990) argues that new policies that are born out of an incremental approach to policy production and presented as solutions to previous policy failure are often a result of the questioning and critiquing of previous policies or reforms.

The Rational approach to policy development, on the other hand, consists of in-depth prescriptive steps, including different and linear phases "... through policy development, text formulation and implementation" that policymakers must follow as the policy is enacted (Cuban, Ibid: 9).

The approach is centred on aiding governments in developing policies that are technically sound. It is in this regard that Weaver-Hightower (2008: 153) refers to the rational approach as "heuristic". The Rational approach includes six phases (Weaver-Hightower, Ibid:9): (a) problem definition; (b) clarification of values, policy goals and objectives; (c) options' identification with a view to achieving policy goals and objectives; (d) options' assessment (e.g. cost-benefit analyses); (e) a course of action selection; and (f) development of an implementation plan. Knoepfel et al. (2011) propose three elements to rational policy approach and development. They include (a) political decisions on the values to be attributed to a policy; (b) rational determination in each of the six phases of rational approach to policy development; and (c) the impact of organizational bureaucracy on public policies. Above all is the issue of funding and resources that are not only critical but should also be commensurate and appropriate to set objectives if the policy is to be classified as rational policy.

2) Type of Policies: Symbolic and Material Consequence Policies

Rivzi and Lingard (2009) posit that policies are generally "...designed to steer action and behaviour, to guide institutions and professionals in a certain direction". Sometimes, however, some policies are formulated in such a way that they lack "...material consequences" (Ibid: 8). Put differently, those are policies that are developed with no intention or purpose to steer actions; hence no consequences in the case of their failure. These types of policies bear no consensus characteristics around the principal idea for which they were formulated. Such policies are referred to, by Rivzi and Lingard (2009), as "symbolic policies".

Their symbolic nature results from their inability to steer actions and this is manifest, not only, at the level of implementation but it can be detected, as well, throughout all the stages or contexts of policy formulation. To demonstrate how a symbolic policy does not mean what its text claims, Stone (2011: 157) defines a symbol as "...anything that stands for something else. Its meaning depends on how people interpret it, use it, or respond to it".

A symbolic policy is clearly and mainly identifiable by the absence/lack of funding for the policy itself and its implementation thereof (Rivzi & Lingard, 2009). While symbolic policy might or might not have perplex goals, accompanied with an incoherent and illogical implementation strategy, the absence of funding to its cause demonstrates its symbolism. Rein (1983), also Rivzi and Lingard (2009), single out three factors that may signal or indicate the symbolism of a policy, thereby its predictive failure. They include (a) irrational policy goals; (b) the absence or the existence of an irrational implementation that is not backed by an implementation strategy; and (c) the lack or the existence of pseudo funding that is incommensurate to the policy goals and objectives. Further to these characteristics is also the higher level of mediatisation of the said policy. This is logical given the fact that their main aim is to respond to a certain pressure, not to provide a cause of actions as a material consequence would do (Rivzi & Lingard, *ibid.*). While it might appear that symbolic policies, however, do not have effects, this is not true as they might or might not. The question perhaps lies on the type of effects they might have, if any. Are those effects in line with what the policy sought to achieve publicly or these are other hegemonic effects? Rein (1983) contends that some of the effects of symbolic policies can just be the legitimacy they provide to a particular political point of view and more importantly the calming of the pressure for which the policy was developed.

With regards to material policies, they are easily identifiable by (a) their clarity of goals and evaluation mechanism, (b) their commitment to the implementation plan and strategy and; (c) the availability of funding to their disposal for their formulation and implementation (Rivzi & Lingard, *ibid.*). To an extent, material policies do adhere to the fifteen points proposed by Khan (2016) (see paragraph 2.2.3.1.2 (2): factors influencing policy implementation failure and how to contour them) for one to expect successful implementation that speaks to the policy problem.

2.2.3 Policymaking: Context of Practice

Griggs and Boaz (2011) contend that talking of practices implies tacitly referring to actions. All actions are socially and materially constructed. They are often practiced using artefacts and

sometimes presuppose an interaction amongst actors. The context of practice (CP) in policymaking is the process of putting policy decisions into effect or execution and further evaluating their effectiveness, efficiency, and impact of the implementation. In other words, the CP deals with implementation and evaluation issues, following parameters outlined during the policy formulation stage (Benoit, 2013; Pradhan, Su, Fu, Zhang & Yang, 2017). With regards to the evaluative part of the CP, research suggests that post implementation evaluation remains the most objective indicator of policy attainment (Knoepfel et al., 2011; Khan, 2016).

2.2.3.1 Policy Implementation

While there are various ways of defining policy implementation, Knoepfel et al. (ibid.), as well as Pradhan et al. (2017), define the policy implementation phase as one that ensures the attainment of policy goal(s) and objectives/outputs. It is in this context that Khan (2016) is of the view that the ultimate indicator of policy success depends solely on the successful implementation. Furthermore, Bain (1992) cautions against the implicit common assumption suggesting that a well-crafted policy implies successful and easy implementation. Bain's contention is based on the fact that no success of any public policy can be automatically assumed on the basis of its formulation greatness. This is to suggest that well formulated policies "...are not self-executing" (Edwards, 1984: ix in Bain, 1992: 119). They are instead intertwined with their implementation's complexities as opposed to being a mere robotic stage (Knoepfel et al., 2011; Khan, 2016). According to Sadler (1996), cited by Pradhan et al. (2017: 65), a policy is referred to as effective only if it is procedural, substantive, and transactive. That is, respectively, the policy can (a) "...meet its principles and provisions", (b) attain its set objectives and (c) to procedurally "... deliver the substantive objectives at the least cost and in the minimum time possible". It is in this context that Knoepfel et al. (2011) when discussing the policy formulation stage of policymaking that they tagged as "programming stage", highlight the two constitutive parts of the stage, the political administrative programme (PAP)—the substantive & institutional elements—and the political administrative arrangements (PAA).

The following section explores what the literature contends regarding the process of policy implementation:

1) Policy Implementation Process

Policies as text—product of a formulation process that includes higher levels of persuasion and negotiations—embed tensions and contradictions which are hidden behind the compromised text (Rivzi & Lingard 2009; Birkland, 2019; Ralarala, 2019). Smith (1973) argues, however, that embedded tensions manifest themselves during the policy

implementation stage. It is during this phase that formulation tensions and contradictions come to light and are easily traceable throughout the following four components of policy implementation processes (Smith, *ibid*: 197).

a) The idealized Policy

The idealized policy is concerned with the need to have the ideal patterns of interactions that should exist amongst policymakers, as protocol of interactions. The protocol aims to regulate interactions with a view to managing tensions amidst actors that could derail the policy implementation. It further encapsulates fundamental values of the policy implementers which are afterwards subjected to all actors and stakeholders for approval.

b) The implementation organisation

According to Smith (1973), successful implementation of public policies is dependent on the implementing capacity of the concerned government entity. While a concise and action-oriented organisational structure is important as it would facilitate a conducive environment for policy implementation success, a good organisational structure is meaningless in the absence of qualified and experienced personnel (DeCanio et al., 2000).

c) The target groups

The change of behaviour of the target group (TGs) is the aim that represents a condition for the fulfilment of the policy goals (Knoepfel et al., 2011). TGs constitute a prominent and key feature for any envisaged policy implementation process. Weaver (2015) maintains that policy implementation success is heavily dependent on the extent to which the policy is embedded with mechanisms to alter behaviour. The following guidelines are offered to policymakers and implementers (2015):

- i. Anticipation of any issues, including individuals and organisations that might constitute a barrier to the policy reaching its set objectives.
- ii. Mitigate the target groups' challenges that prevent them from complying with the policy. This assists in increasing chances of behavioural changes;
- iii. Concentrate on the most challenging barriers that could potentially affect policy implementation success;
- iv. Consider the heterogeneous nature of target groups to continually adjust compliance measures accordingly.

d) Environmental factors

Policies, regardless of how good they might be, are not implemented in a vacuum, nor are they immune to environmental factors. Policymakers and implementers are cautioned not to be oblivious of policy development tenets and environmental factors related to policy implementation (Smith, 1973). Knoepfel et al. (2011: 192) note how "...target groups may be members of a pressure group whose cooperation is necessary for the realisation of the policy in question". According to Pradhan et al. (2017), cooperation is dependent on the correlation between policy incentives/instruments, and the policy goals. This is on the backdrop that the success of policy implementation is also dependent on the policy tools available, including the target groups (TGs) and incentives aimed at altering their behaviour for the cause.

Further to the handling of the TGs, Knoepfel et al. (2011: 192) also mention the fact that the subject for which a policy exists can, itself, be an environmental factor. That is, the success of a policy might be influenced by the weight of that subject matter. This is especially in view of "...the responsibility that public opinion and public actors attribute to that subject in relation to the public problem to be resolved". It is in this context that Pradhan et al. (2017: 68) state that "...the indicators of effective policy implementation may vary depending on the perceptions of the communities, and their geographical location". In fact, the way Pradhan et al. (2017: 69) define public policies is quite comprehensive and inclusive of all aspects and factors that are key for policy implementation success. They contend that "...the definition of policy can be described as the ability to apply control over the issue being addressed in a defined geographic area in relation to specific social groups, instruments, actors, and mechanisms for successful operation".

2) Policy Implementation Approach

Literature on policy implementation differentiates two policy implementation approaches that include the "top-down (the classic or hierarchical approach) approach" and "the bottom-up approach" (the integrationist or evolutionary approach) (Cerna, 2013: 18). According to Cerna (2013), these two approaches differ in the way policy actor's act and how they relate amongst themselves.

a) The top-down approach to policy implementation

Bain (1992: 110) reports that the conceptual underpinning of the top-down approach, referred to as the "classic or hierarchical model", is rooted in "the machine metaphor of administration" that encompasses "the organisational hierarchy" of Web (1864-1920),

“the separation of politics and administration” of Wilson (1856-1924) and “the Principles of Scientific Management” of Taylor, (1856-1915). The organisational hierarchy presupposes a fundamental belief that a hierarchical and administrative organisational pyramid is the only legal and efficient institution for policymaking and directives. As a result, proponents of this approach consider the decision makers as the most important actors given their central role in the process of policymaking (Matland, 1995). Hupe (2011: 65), top-down approach to policymaking is no different to what may be referred to “... the primacy of policy on paper” which is a suggestion that it is the formulated policy or the directives of a “determine policy implementation” and its success thereof. Following this logic, it is reasonable that more efforts and strategic thinking be dedicated to “... factors that can be manipulated at the central level” of policymaking. It is for this reason that the top-down approach pays more attention to policymaking process as opposed to those who will be affected by the policy (Cerna, 2013: 18). Actors at the bottom of the pyramid are duty-bound to implement, without fail and in an unquestionable manner, all policy prescripts as determined by the hierarchy.

The top-down approach is criticised for its disassociation of policy implementation from political aspects by perceiving policy implementation as a purely administrative process. As such, the top-down approach is said to be “... a separate, neutral, professionalised, and non-political activity that could be carried out on the basis of objective principles of scientific rationality” (Bain, 1992: 111). Bain (ibid: 112) notes five “major preconceptions” that underpin the top-down approach:

- (i) “Policymaking and policy implementation are bounded, separate and sequential”;
- (ii) “These boundaries exist because: (i) a clear division can be distinguished between policymakers and policy implementers. The former set goals which are carried out by the latter; (ii) policymakers are capable of stating policies definitively because they can agree on a priority among different goals; and (iii) policy implementers possess the technical capability, the obedience, and the will to carry out these policies”;
- (iii) “The process of implementation unfolds in a chronological and sequential fashion in which policymaking precedes policy implementation”;
- (iv) “Decisions of implementers are perceived to be non-political and technical in nature” and
- (v) “The legislature has primacy in the process of policy formation and the implementers ought to be an instrument rather than a brain”.

In sharp contrast to the top-down approach is the bottom-up approach discussed below.

b) The bottom-up approach to policy implementation

While acknowledging the key role that central (decision-makers) policymakers play, the bottom-up approach to policy implementation focuses its attention on the local sphere of the policy and those that it is likely to affect the most. They include, in particular, “the target groups and service deliverers” (Cerna, 2013: 18). For Bain (1992:116), the approach “... accords prominence to what is actually done by role players during the implementation stage of the comprehensive public policy process, i.e., how and why groups and individuals act in the way they do during implementation”. In the main, it seeks to empower policy implementers to the extent that it blurs the divide line, advocated by the top-down approach, between policymaking and policy implementation. The approach advocates for the discretion of key implementing actors in the interpretation of the policy and its implementation thereof. In other words, this approach believes that implementing actors ought to be involved in the process of policy formulation as they have the duty to clarify legislative ambiguities, policy contradictions, and any policy or environmental issues that might hinder implementation. In so doing the approach elevates the need for quality policy implementers (Bain, 1992).

Bain (1992) notes the emergence (in South Africa) of the bottom-up approach as an acknowledgement of the importance of policy implementation. He epitomises “...the decentralisation of authority, the allocation of greater managerial independence and the granting of greater discretionary authority to executive departments” (p.117). This suggests a negation of the assumption that the policy implementation phase is just a robotic stage of policy formulation cycle. In the South African context, this is exemplified by the fact that “... one of the main objectives of parliament is to ensure public participation in policymaking and law making” while “...the NCOP1 represents the provinces to ensure that provincial interests are considered in the national sphere of government (Gumede, 2018: 7).

Opponents of the bottom-up approach to policy formulation accuse the approach of usurping the policy control entrusted to elected public representatives. This is due to what Cerna (2013: 19) refers to as an overemphasis on level of local autonomy advocated by the bottom-up approach.

¹ National Council of Provinces

3) Factors influencing policy implementation failure and how to counter them

a) Factors influencing policy implementation failure

Ten (10) possible causes of policy implementation failure are presented below. They include six causes identified by Pressman and Wildvsky (1973), and four noted by (4) Hudson, Hunter, and Peckham's (2019: 2):

i. Six causes of Policy implementation failure identified by Pressman and Wildvsky (1973):

- (1) Faulty of program theory. A policy with very good intention, but lacking "theoretical validity" in a sense that the aim of the policy is wrong or unrealistic;
- (2) Unclear Goals and Objectives. Lack of clarity with regards to the policy goals, targets and objectives is an excellent ingredient for policy failure;
- (3) Lack of Coordinated Planning. Insufficient or ill-conceived implementation plans result in policy implementers being left to their own devices.
- (4) Lack of standardisation. The lack of standard procedure (technical details) to guide policy implementation contributes to policy implementation failure;
- (5) Intra-agency Antipathies. These are internal or intra oppositions amongst different policy actors and implementing agencies. They have the potential to delay policy implementation, thereby leading to policy implementation failure;
- (6) Complexity of Joint Actions. The implementation of any policy requires not only the multiplicity of participants and decisions but also a concerted effort in the management of these multiplicities by people with expertise in the domain. Failure to do so results in policy implementation failure.

ii. Four causes of Policy implementation failure: Hudson, Hunter, and Peckham's (2019: 2)

- (1) *Overly optimistic expectations (OOE)*: Lack of grasp on "policy delivery challenges, to the extent of misjudging "cost, benefits and risks" associated with the policy may be the direct cause or contributing factor to policy failure, according to Hunter et al. (ibid).
- (2) *Implementation in dispersed governance (IDG)*: This occurs when a national policy relies on the complexities of constitutionally decentralised/autonomous

provinces that might have different priorities from the national priorities. This, to some extent, relates to Khan's (date) dissipation of energies. This too appears to be the case in the SA WP7;

- (3) *Inadequate collaborative policymaking (ICPM)*: This is when policymakers fail to have a common drive and understanding of the matter for which the formulation of a policy became warranted. This again appears to be the case in the SA WP7;
- (4) *The vagaries of the political cycle (VPC)*: This refers to a cycle of short-lived projects that are fine-tuned and conceived around the projected short stay in office of the political head. Perceived as easy to formulate while higher in visibility, policy formulation is often linked to political heads who prefer the formulation of new policies during their tenure than embarking in the difficult task of implementing those existing and left-behind policies by the predecessor.

b) How to counter Policy implementation failure

To providing a solution for an envisaged successful implementation of a policy, Khan (2016: 9-10) propose fifteen points guidelines as listed below:

- (1) Good theoretical back-up: Ensure that the policy is grounded on a theory that is valid;
- (2) Policy Legitimation: Ensure the legitimacy of the policy is unquestionable;
- (3) Goals and Objectives: Unambiguous and specific, measurable, attainable, rational, and time-bound (SMART);
- (4) Resources Accumulation: Ensure availability and commensurability assigned to the policy;
- (5) Mobilising Resources and Actions: Ensure that resources are organised through action plans and clarification of performance standards amongst others. All geared towards the objectives;
- (6) Organisation Design and Modification: Ensure that the policy finds expression in the organisation design, otherwise the design of the organisation should be modified accordingly;
- (7) Commitment and Skills of Frontline Implementers: Ensure implementers are up to the task in terms of their internal disposition (i.e., incentivised) and competence;
- (8) Make a check and Balance of discretionary power of the frontline implementers: Ensure the discretions afforded to implementers is balanced;

- (9) **Defined Roles & Responsibilities:** Ensure roles and responsibilities of each actor are clearly defined, explained and the system of accountability is activated
- (10) **Reward & Punishment:** Establish both an incentive and punishment systems for excellent performance and lack, respectively;
- (11) **Monitoring:** Establish a well-structured monitoring and evaluation system;
- (12) **Involvement & Engagement:** Ensure that all relevant stakeholders remain involved and active where possible;
- (13) **Active Leadership:** Ensure that experience and tested leaders are assigned to the policy to provide guidance;
- (14) **Overcoming complexity of Joint Actions:** Ensure that there are systems and protocols of engagements to prevent/mitigate conflicts and contradictions;
- (15) **Choosing correct Location:** Ensure that the environment under which the policy is to be implemented is appropriate and commensurate.

According to Rein (1983)—also referred by Rivzi and Lingard (2009: 9)—there are three factors that determine policy implementation success. They include (a) the lucidity of the policy goals and the extent to which the goals will be effective during policy implementation; (b) the presence and intricacies of the implementation strategy; and (c) the availability of funding that is commensurate to the goals to be achieved.

2.2.3.2 Policy Evaluation

Policy evaluation deals with the “...testing of the empirical validity of the causality model on which the policy is based” (Knoepfel et al. 2011: 221). According to Theodoulou and Kofinis (2004), it is through this stage that policy flaws, including those related to the context formulation, are unearthed. Knoepfel et al. (2011) argue that it is through the systematic evaluation of a policy that policy analysts and all other concerned parties determine whether the policy has reached its intended objectives and has had the intended effects that can be linked to the satisfaction of the policy beneficiaries. The evaluation further includes establishing whether the cost of the policy was commensurate to its outcomes and outputs, and to what extent the target groups’ change of behaviour facilitated the attainment of the policy objectives.

In addition, the evaluation stage of the context of practice (CP) is extremely key for policy enhancement. It is because of it that the perception of the cyclic nature of a policy exists (Pradhan et al. 2017). Broc, et al. (2019: 3) distinguish two dimensions that pertain to policy evaluation that include “summative and formative” dimensions. While the former seeks to establish the effectiveness and efficiency of the policy through “accountability, monitoring target

achievement and assessing cost-effectiveness of the policy measure”, the latter deals with policy enhancement. That is, looking into “what works” and “what didn’t and why”, and how “what didn’t work” can be improved to feedback to the policy cycle. The cyclic perception of public policymaking is an opportunity for retrospective loops between the CP and the context of influence (CI), specifically the evaluation stage and problem identification one. The following sections briefly look at the key policy evaluation criteria of policy effectiveness, impacts, efficiency, relevance, and productive economy.

1) Policy Effectiveness

Establishing whether a policy has been effective is about “...testing the causal hypothesis” (Knoepfel et al., 2011: 230). According to Schwella, (2001: 367) policy implementation effectiveness is “...influenced by societal contextual realities and the needs of the client base” which is very prevalent in South Africa. For Knoepfel et al. (2011), the comprehensive determination of policy effectiveness can be summed-up as the concrete outputs of policy implementation. Broc et al. (2019: 3), postulate that “... effectiveness analysis considers how successful [a policy measure] has been in achieving or progressing towards its objectives”. Pradhan et al. (2017: 68) report that a comprehensive determination of policy effectiveness only occurs with evidence of assessment that is procedural (policy principles and provisions are met), substantive (policy objectives are reached) and transactive (objectives were met at a least cost and minimum timeframe). Knoepfel et al. (2011: 151.) refer to the procedural and substantive evidence as the Political Administrative Programme (PAP) which form “...the legal basis for the objectives, intervention instruments and operational arrangements of the public action”. The transactive evidence forms part of the Political Administrative Arrangement (PAA). Summed up, policy effectiveness is about testing whether the application of the policy has had intended effects given the fact that set objectives always have in mind a change in social reality.

While a change in social reality could be the result of a policy intervention, this review notes that this might not be solely dependent on the policy intervention as it is difficult to establish the causal link between policy interventions and social change. Even though some policy objectives might have not been reached, the mere attempt to implement policy might have controlled the worsening of the identified need for the policy. Not attaining some objectives could thus suggest a misaligned policy contribution (Knoepfel et al., 2011).

2) Policy Impacts

Regardless of how effective a policy might be, Knoepfel et al. (ibid.) contend that a policy may still be regarded as obsolete if the set objectives do not trigger change in the target groups.

Regarding the impact of a non-materialisation of a policy's anticipated benefits, Albritton (1979: 577) refers to such policy as one that "has no clothes". The envisaged social change represents policy impact which "... measures the suitability of the normative objectives of a policy in terms of the real behaviour of target groups" (Knoepfel et al., 2011: 228). This study's review contends that policy impacts are measured by comparing the planned impacts (through the set objectives) with the actual impacts resulting from the implementation encapsulated in the Action Plan. Such comparisons are made possible by unambiguous and measurable performance indicators. The successful production of any policy is rendered null, should the envisaged social change fail to occur.

3) Policy Efficiency

Policy efficiency is concerned with the evaluation of the extent to which policy outcomes are commensurate with the resources assigned to the policy (Knoepfel et al., 2011; Broc et al., 2019). As such, policy efficiency ought to be considered only after effectiveness is established. In essence, measures of policy efficiency and effectiveness are concerned with evidence of what could have been achieved with less resources, or what more objectives and effects could have been attained with the same resources. This is crucial as the identification of appropriate resources and the cost of these resources are key elements for the successful implementation of any public policy.

Ralarala (2019) has argued that the success of any public policy cannot be construed in the absence of adequate and commensurate resources. It is in this regard that Albritton (1979: 559) points out the discontinuities that often exist between policy decisions and policy outcomes, reflecting "...government spending programs where increases in expenditures frequently are unrelated to program effectiveness".

Although policy efficiency is a challenging exercise as it calls for the comparison of two things of different nature, Knoepfel et al. (2011: 233 citing Rossi and Freeman 1993), speak of two methods used in evaluative policy efficiency. They include (1) "Cost-benefit analyses" and (2) "Cost-utility analyses", commonly referred to as "Cost-effectiveness analysis". With cost-benefit, the achieved benefits are first quantified to compare things of the same nature. This helps for comparison with the policy cost that is or can be monetised (Bleichrodt & Quiggin, 1999; Knoepfel et al., 2011). The policy cost, however, is said to be less rigorous (Knoepfel et al., 2011) and "...has no foundation in economic welfare theory" (Bleichrodt & Quiggin, 1999: 1). With the cost-utility, the establishment of objectives' efficiency (in terms of cost) is arrived at by comparing "... different measures (for example, speed limits, road widening,

mandatory wearing of seat belts on back seats). That is in terms of the achievement of a specified effect—for example, reduction of the number of road deaths by a defined proportion—(Knoepfel et al., 2011: 233)”. It is through these methods that the extent to which a policy might be in terms of its efficiencies can be determined.

4) Policy Relevance

According to Knoepfel et al. (2011: 234), a policy is referred to as relevant only if the social problem(s) that necessitated its formulation find(s) expression in the policy’s set objectives. That is to the extent that—with the correct application of such policy—there is a likelihood of addressing the social problems for which the policy was enacted. The criterion for policy relevance therefore pertains to an assessment of a policy’s set of objectives against the social problem(s) that the policy attempted to address/resolved. Broc et al. (2019: 3) state that “...relevance looks at the relationship between the needs and problems in society and the objectives of the intervention and hence touches on aspects of design”. Knoepfel et al. (2011) argue that the evaluation of policy relevance is a delicate exercise because policy objectives emanate from political compromises that are not necessarily the results of rational engagements amongst policymakers and actors. As such, relevance may be compromised as objectives might have not been in sync with the real social problems that needed to be resolved.

2.3 SA SOCIOECONOMIC & POLITICAL CONTEXT: WP7 FORMULATION PERIOD

The year 1994 heralded the end of an apartheid era and ushered in a democratic South Africa. The new democracy sought to end the institutionalised unequal society for a dreamed society which was to treat its citizens equally regardless of their race, gender, and ethnicity (US Department of State Archive, 2001–2009; National Economic Development and Labour Council (NEDLAC), 2017). The official end of apartheid, however, did not appear to make a dent to the dire socioeconomic conditions of South Africans, especially the previously disadvantaged population (Chisholm, 2012). The so-called transformative policies that advanced the principles of equity, equality, justice, and redress did not seem to have produced expected results (Motala & Pampallis, 2002; Kon and Lackan, 2008; Singh, 2010; Chisholm, 2012; Kanjee and Sayed, 2013). In the year 2000 a report by the National Economic Development and Labour Council (NEDLAC) set out the continued unabated status of inequalities in the country. According to Pillay (2001: 3), NEDLAC 2000 noted that South Africa was still experiencing “...high incidences of absolute and relative poverty”, to the extent of witnessing the emergence of “... new kinds of inequality”, as well as “...a high and rising level of unemployment, coupled with negative formal sector employment”.

Many believe that the growing socioeconomic discontentment and political tensions are indicative of the omnipresent nature of apartheid legacies - entrenched and continued inequalities amongst South Africans. Gallo (2020) opines that the legacy of apartheid, with no exception to the education space, is still present more than twenty-six years since the advent of democracy in 1994. Serious disparities amongst citizens, characterised by abject levels of poverty, can still be identifiable along racial lines (Siyongwana & Chanza, 2017; Chisholm, 2012).

Transformative education policies that were aimed at curbing apartheid born inequalities, while promoting equal access and quality education for all, have produced the opposite of their intent. McKeever (2017: 114) contends that "... educational differences have served to perpetuate inequality over time in a society that no longer allows for the explicit denial of opportunity by race". This leads to the suggestion that the post-apartheid transformative policies failed to deliver what they were formulated for (Sayed, 2000; Chisholm, 2012). The South African Voluntary National Review Report (2019) on the implementation of the 2030 Agenda for sustainable development admits that despite such policies, 25 years later, "... South Africa has the most unequal school system in the world" (SA Implementation of the 2030 Agenda, 2019: 58). In 2010, Singh (2010: 209) stated that "... despite Government's emphasis on the importance of ICT in fostering equitable growth, enshrined in the Reconstruction Development Programme (RDP) and Growth, Employment and Redistribution (GEAR) documents, these policies have largely failed to deliver on promises of a more equitable society". Later, Mosehlana (2018: 695) highlighted the fact that ICT policies in South Africa, at least "...between 2001 and 2015", have failed to establish an ICT environment ecosystem amongst government institutions.

2.3.1 Discourse of Information and Communication Technology (ICT) In Education

South Africa's post-1994 discourse on the role of education is based on the idea that education is one of the key instruments for the holistic transformation of the country from apartheid to a democratic society (Gumede & Biyase, 2016). Chakraborty et al. (2018: 1) describe education as a fundamental machinery that has the power to transform society. The pre-1994 apartheid regime successfully used the power of education to pursue its racial segregation mission (Gumede & Biyase, 2016). Nelson Mandela (July 13, 2003) stated that "...education is the most powerful weapon which you can use to change the world".

The ANC believed and predicated that there was no way it could achieve its set goals and objectives in the absence of concerted efforts to empower people "... through education and training" (African National Congress (ANC), 1992). The ANC understood that restoration of people's dignity, empowerment, and true liberation, be it socioeconomic or political, could not be

envisaged and envisioned without access to quality education and training. Aftab and Ismail (2015: 43) refer to education and training as "...the prerequisites of the mainstream system" while Ibanga (2016), inspired by Julius Nyerere's (Former President of Tanzania, 1962-1985) philosophy of education, parallels the extent to which a country is said to be developed based on the quality of its education system.

Education, uses a host of tools, referred to as "...agencies of education" (Chakraborty et al., 2018: 1) to pursue and reach its (education) purpose, be it social, cultural, or developmental change. South Africa's transition to democracy occurred during the height of the ICT revolution which is said to have "...accelerated pace of globalisation" and "...fuelled the dramatic spread of ICT applications across sectors and nations" (Dale & Khuong, 2016: 3). The power and the ability of ICT to facilitate the modernisation of education, nurture the development of the needed contemporary skills and knowledge, and further help in the fight against citizens' inequalities, positioned ICT as tools of choice for the transformation agenda. Thus, the South African Education sector could hardly ignore the ICT revolution and its potential benefits. Aftab and Ismail (2015) believe that the appropriate use of ICT in teaching, learning, and administration of education, have the potentials to assist in the fight against poverty and inequalities. Sutherland et. al. (2004) insist that it is not ICT that enhances teaching and learning, but instead it is their appropriate and pedagogical use that helps improve both, teaching, and learning.

The identification of ICT as tools for social and economic transformation preceded the South African advent to democracy of 1994. This, to some extent, justifies the prominence of the discourses of ICT in education that predated the publication of WP7 and formed part of its formulation context. Prior to 1994, the ANC's 5th National Policy Conference discussion document focused on basic education, higher education and training, health, science, technology, and innovation (STI) (ANC, 2017). The 1993 International Development Research Centre (IDRC) commissioned report: "Towards a science and technology policy for a democratic South Africa" is cited as evidence of pre-1994 commitments to STI. Contrary to the apartheid administration's advancement of technology with the sole purpose to "...serve the needs of state security and the suppression of most of the population" (International Development Research Center (IDRC), 1993: 4), technology was envisaged, in the democratic era, to be a critical tool for "...economic efficiency or social equity" (IDRC, *ibid*: 5). The shrinking and dying apartheid economy, in a way, stirred the introduction of computers in education, with a view to stimulate much needed inclusive economic growth (Government Gazette, Act No. 64 of 2001; Vandeyar, 2015).

Dlamini and Coleman (2017), as well as Behar and Mishra (2015) assert that the integration of ICT in education, especially in Africa, has become synonymous with the mere delivery of

hardware to schools, often following the prescripts of service providers, and the ticking of the boxes by officials as having integrated ICT. This explains the proliferation of computers and other ICT devices in education spaces in the past few decades, which in most instances bring about short-lived excitement before collecting dust and becoming redundant and replaced for new cycle of redundancy, while profiting those in the business of selling computers. According to Sutherland et al. (2004) the non-realisation of the promise of ICT' contribution to enhanced teaching and learning is due to the lack of full understanding of their pedagogical use. Behar and Mishra (ibid: 74), citing a 2005 World Bank study on "the efficacy of classroom ICT", reiterated the fact that there is no conclusive evidence thus far "... to suggest that investment in classroom ICT delivers substantive returns". They further cited a 2013 study from Peru, on a laptop distribution project (Inter-American Development Bank (IADB) aimed at ascertaining their (laptops) contribution towards improving learning outcomes. The study found no such evidence (improved learning outcomes). Instead, it is only learners' competence in the use of computers that was found to have increased. This led to doubts being raised about the impact of ICT in education (Olaore, 2014).

With regards to the power of ICT in education, Dlamini and Coleman (2017) observed that failure in ICT in education implementation cannot be attributed to the tools (ICT). Instead, it should be attributed to their ill-conceptualisation which in most instances is devoid "...of formal research and theorisation" and "...education needs", hence their ill-utilisation. While the provisioning of ICT devices to schools takes center stage and leads ICT interventions, "pedagogical ICT integration" is at the margin or completely ignored (Dlamini & Coleman, ibid: vii). This is despite the observed correct articulation of the pedagogical role of ICT in education by policy documents of various African countries (Alnoaimi, et al., 2014).

Behar and Mishra (2015) argue for a shift from investing in the learners to investing in teachers through teachers' professional development on the integration of ICT in education. They believe that the current "... lack of emphasis on the teacher is the main reason that the much-hyped investments in educational technology that seek to go directly to the learner have not paid off" (ibid: 74). The SA Department of Basic Education (DBE), in its latest action plan unambiguously states that "... in basic education, the most enduring apartheid legacy is probably the unequal system of teacher training. Addressing this will continue to require effective in-service training" (Department of Basic Education, 2020: 5).

2.3.2 The Discourse of Curriculum Change

The role of education in the fight against inequalities and poverty was well understood by the new post-apartheid democratic government. Msila (2007) views the drive for educational transformation as a premeditated act aimed at a total reverse of apartheid misdeeds. This is evidenced by the desire for "... educational reform and curriculum change" (Gumede & Biyase, 2016: 69; Office of the President, 1995).

The National Qualification Framework (NQF) (Office of the President, 1995) includes, amongst its 5 objectives, the acceleration of "... the redress of past unfair discrimination in education, training and employment opportunities" as means to contributing to "... the full personal development of each learner and the social and economic development of the nation at large" (Office of the President, 1995). The transformation of education was a major policy agenda item for the post-apartheid government which sought to reverse the use of "education as a means of undemocratic social control" to it becoming an instrument for social change, and the development of equitable and just society (Msila, 2007: 146). Chisholm (2005b) speaks of the immediate syllabus changes to remove apartheid's discriminatory language prior to the launch of Curriculum 2005 in 1997. Gumede and Biyase (2016 citing Jansen & Taylor 2003)—claim that the design of the post-apartheid curriculum sought to produce active citizens who were to be the standard-holders of the aspirations of the new democratic constitution. This was in line with the "interests, values and histories" of the winners of the 1994 elections. For them, education and its curricula served as a "...political statement" (Chisholm, 2005a: 194). Referring to rapid curriculum changes in the post-apartheid era, Ken and Volker (2004: 196) advance that "...the new curriculum was, as in the past, intended to serve as an instrument for the new political vision". It is in this context that Msila (2007: 146) argues that education in its nature was never a conceived to be a neutral act, instead it is always political.

Wahlström (2018: 654) contends that the faith bestowed in education to galvanise social change and development depends on the content taught (packaged as curriculum). This includes, in the case of the post-1994 curriculum, the ability to facilitate the shaping of "autonomous citizens", capable of achieving personal goals while contributing to the public good and the community at large. In this regard, Jansen and Sayed (2001) speak of a curriculum that dictates a type of content that is tailored to achieve the interests and desires of the dominant forces.

Gumede and Biyase (2016) postulate that the introduction of curriculum 2005 (C2005) stands out as the best starting point when the post-apartheid curricula change is discussed. Underpinned by the Outcome-Based Education (OBE) as its philosophical tenet (Chisholm, 2005b), C2005

embodied the post-apartheid government's desire to transform the ill-socioeconomic conditions of the majority of South Africans. It grounded itself in principles such as "...non-racism, non-sexism, democracy, equity and redress" (Ken & Volker, 2004: 196) and found expression in the NQF. C2005 envisaged a total transformation of the education system, "... from passive rote learning to creative learning and problem solving through active participation in the learning process" (Msila, 2007: 149).

Curriculum 2005 (C2005) did not, however, survive the onslaught for both academics and practitioners. The key criticism was that C2005 was far too complex in its implementation structure and lacked content clarity. According to Maodzwa-Taruvunga and Cross (2012), C2005 was outdated and hindered its own attainment. Ken and Valker (2004) believed that the implementation of C2005 (heavily reliant on the availability of resources and well-trained teachers) resulted in the reinforcement of apartheid educational inequalities rather than their reversal. Relating to these sentiments, Jansen (1999: 146-147) consistently believed that C2005 was doomed to fail because it was inspired by "... political imperatives which had little to do with the realities of classroom life".

The opposition to, and frantic debates that ensued upon the release of C2005 led to its revision in 2000, just a few years after its launch in 1997 (Chisholm, 2005b). The revision gave way, in 2002, to the Revised National Curriculum Statement (RNCS). The RNCS did not in essence do away with the outcome-based education as the core principles of the C2005. Instead, the RNCS was a replica of C2005 but attempted to make implementation simpler through the much more "...streamlined curriculum for the 21st century" (Curriculum 2005 Review Committee report, 2000). The review committee for C2005 contended that its implementation was fraught with challenges, some of them caused by the curriculum's own questionable structure and design, inadequate teacher training and the lack of insufficient learner support materials. Despite the wide public criticism on the decision to keep OBE as the tenet of the RNCS, the review committee argued that there was "... overwhelming support for the principles of outcomes-based education and C2005" (Curriculum 2005 Review Committee report, 2000).

The education fraternity was not satisfied with the RNCS and this led, in 2009, to the appointment of a task team by the current Minister of Education, Angie Motsekga, to review the implementation of the RNCS. Referring to research, the task team contended that the OBE tenet was problematic, to the extent of being indistinct with regards to what exactly learners had to learn in order to produce the desired outcomes (Department of Basic Education (DBE), 2009). The task team for the revision of the RNCS concluded that the RNCS did not bring about expected outcomes. Attempts to simplify and clarify C2005 through the RNCS succeeded as C2005's

inherent confusions remained unabated and still found expression in the RNCS. Teachers and departmental officials failed to make a “shift from C2005 to the Revised National Curriculum Statement” (RNCS) as a result of persistent confusion (Department of Education, 2009: 12). The task team further highlighted the dichotomy of keeping OBE as the core principle of RNCS, whose success was yet to be empirically proven. In conclusion, it was therefore proposed that the DBE gets rid of OBE as the core tenet of the National Curriculum Statement. This is what resulted, since 2012, in the implementation of the current National Curriculum Statement, widely known as the Curriculum and Assessment Statements (CAPS).

2.3.3 HIV/ AIDS Discourse in South Africa during the Period of WP7 Formulation

The human immunodeficiency virus and acquired immunodeficiency syndrome, popularly known as HIV/AIDS, reported to have started in 1981 (Eisinger & Fauci, 2018), reached its apogee during the 1990s. This coincided with South Africa’s democratic transition negotiations. The transition occurred during the early post-apartheid period (Bachmann & Booyesen, 2003). The HIV/AIDS pandemic affected populations across the world, with South Africa and the rest of Southern Africa being the most affected. The pandemic posed health, developmental and socioeconomic threats in the region (Haacker, 2002).

Cited by Haacker (2002), the joint United Nations programmes on HIV/AIDS (UNAIDS) states that in the year 1999, one out of five adult South Africans were HIV infected (19.9%). The impact of HIV/AIDS on the health of South Africans led to increased mortality (Bachmann & Booyesen, 2003; Louw, Shisana, Peltzer & Zungu, 2009). Economically, the situation exacerbated the country’s “...existing poverty” levels, especially amongst the underprivileged population” (Bachmann & Booyesen, 2003: 1). Epstein (2004) states that because the estimation of living with HIV/AIDS (between the time of infection and death) was estimated to only ten years, an increase in mortality was observed during the early 2000 as a result of those who were infected during the 1990s starting to succumb. Table 2.4 and 2.5 below depict, respectively, the demographic impact of HIV/AIDS in South Africa, between 1998 and 1999 (International Programs Center at the U.S. Bureau of the census, 2000 in by Haacker, 2002: 5), and the same demographic by the end of 2003 (near to the publication of WP7). While in 1999 the prevalence of HIV in adults is 19.9%, by the end of 2003 the adult prevalence was 21.5%, an increase of more than 1.5%.

Table 2.4: Demographic impact of HIV/AIDS in SA (1998-1999) (Haacker, 2002)

Country	Total population, 1999 (In Millions)	People living with HIV/AIDS, 1999 (In Millions)	Adult HIV prevalence rate, 1999 (In percentage)	Estimated AIDS deaths, 1999	Life expectancy at birth, 1998 (In years)	Life exp. At birth, "no AIDS", 1998
South Africa	39,796	4,200	19.9	250,000	55.7	65.4

Table 2.5: SA 2003 HIV/AIDS demographic indicators

Country	People living with HIV/AIDS		HIV Prevalence Among Adult (Percent)	AIDS Deaths Among Adults and Children in 2003 (In thousands)
	Adults & Children (In Millions)	Adults (In Millions)		
South Africa	5 300	5 100	21.5	370

Further details on the HIV/AIDS discourse can be found in appendix A that provides a depiction of the situation at the time for the whole of Southern Africa. Table A1 of Appendix A outlines the demographic impact of the disease (HIV/AIDS, its prevalence and associated trends during the same period (WP7 formulation).

2.4 SUMMARY OF CHAPTER TWO

The aim of the study was to develop guidelines for the review and reformulation of WP7 in view of its extended mandate to 2030. The researcher was informed by a thorough review of relevant literature on the socioeconomic and political context that prevailed and influenced the formulation and the content of WP7. The literature reviewed revealed that the context of policy formulation does have bearing on both, the policy content, and the implementation thereof (Rivzi & Linguard, 2009). The absence of any study that interrogates the context under which WP7 was formulated and how such a context might have contributed to WP7's failure to reach its set objectives and goal by 2013 justified the need to understand its formulation context. It is this context that informed the choice of the literature review for the study. The conceptual framework for the study is characterised by three contexts of public policy formulation: the context of influence (CI), the context of text production (CTP) and the context of practice (CP).

The context of influence (CI) implies the need for policy formulation based on the identification of a social problem. The review emphasised that not all qualifying potential policy problems reach the agenda setting table, and consequently the policy formulation stage. This is due to the limitations associated with public resources, especially fiscal ones. There are various competing and able policy problems and not all of them are addressed. The literature review further pointed out that some public policies are formulated without clearly and unambiguously identifying the policy problem. Yet the justification of their formulation is naturally dependent on the articulation of the said policy problem. In addition to concerns associated with the identification of the policy problem, power relations also play a key role in the matter. The literature noted the influential role played by the media and governing parties throughout the life cycle of a policy. Their influence is characterised by dominant voices, compromises, and contestations. In and amongst many other factors related to power relations factor, the literature emphasised significance of policy actors. Key to policy actors' discourse included, amongst others, the identification of the target groups (TGs), the hypothesis of causality (HC) and the crafting of intervention hypothesis (IH) that is able

to cause change of behaviour of the target groups. An aspect that is paramount for the successful attainment of the policy objectives and goal(s).

The other two contexts of public policymaking (PPM), including the CTP and CP, were also discussed due to their critical nature in the process of policy formulation. With regards to the CTP, the literature reviewed contended that the CTP is comprised of two constitutive elements: the Political Administrative Programme (PAP) and the Political Administrative Arrangement (PAA). The PAP constitutes the legal basis of the policy under formulation through which the identification of the policy objectives and goal(s), as well as the availability and sustainability of resources needed for the successful implementation, need to be clearly stated. Through the PAA, policymakers are to understand and establish the link between the target groups (TGs) and those who will be tasked with the implementation phase of the policy. Through the context of practice (CP), inclusive of the actual issues pertaining to the implementation and the policy evaluation that feeds into the CI, the cyclic nature of PPM is realised.

Also discussed, succinctly, were issues pertaining to the type of public policies, including the symbolic (SP) and material consequences policies (MCP). The difference between the two is based on the tacit intention of policymakers or the political authorities behind policy formulation's intention. Symbolic policies, for instance, are those that are tacitly developed with no intention of implementation. They are development centers around the appeasement of the masses who are made to believe, by the formulation of the policy, that something in their favour is about to happen. As such, whatever is stated as objectives and goals cannot be expected to be attained, even though there might be some pockets of directionless implementation as a result of unbudgeted and sporadic funding. In contrast to SP, Material consequences (MCP) policies are those that encapsulate a real and genuine desire to solve a problem that cannot be resolved in the absence of a policy. Their process of formulation is of meticulous nature and inclusive of all aspects of policy formulation cycle. This is in addition to their clarity of purpose and articulation and commitment to the provision of adequate resources to their cause. The non-implementation of a material consequence policy leads to consequences, such as disciplinary actions against those entrusted with their implementation, on the basis that they have been provided with all that was needed for the successful implementation. While material consequence policies are equipped with built-in compensation mechanisms that can be triggered in case of non-implementation, symbolic policies lack such legal basis as, from the onset, they do not mean what they state.

Concerned by the desire to gain insights regarding the socioeconomic and political context that prevailed during the period of WP7 formulation, the review further looked at the prominent discourses of the time of WP7 formulation (in between year 1999 to 2004). They included: (a) the

discourse on the integration or introduction of ICT in education, (b) discourse on curriculum change and (c) the HIV/AIDS discourse.

The literature review has suggested that there was indeed influence of ICT in education discourse that was crisscrossing the world and its impact on the formulation of WP7. This discourse, however, in the case of WP7 formulation, was misconstrued and driven by non-pedagogical motives. The period is also characterised by considered turmoil and instability of curriculum while the prevalence of the HIV/AIDS discourse exposed the two antagonistic views of WP7 policymakers with regards to the role of ICT in education.

CHAPTER 3: CONCEPTUAL FRAMEWORK OF THE STUDY

The construction of the conceptual framework (CF) of this study was driven by the objective of systematically addressing the research question and ensuring the appropriate research methodology. It draws upon a combination of theories, including the Institutional Public Policymaking Theory (IPPMT), Rational Public Policymaking Theory (RPPMT), and Critical Discourse Analysis (CDA) with a focus on Habermas' Theory of Communicative Action (TCA), Validity Claims (VC), and the Theory of Constraints (TOC). These theories are integrated within the framework to explore the multifaceted nature of public policy as a *process*, *text*, and *discourse*. The CF further served as a theoretical lens through which this study examined the intricate interplay between various concepts, actors, and discourses within the realm of public policy. It offered a structured approach that permitted or facilitated the analysis and interpretation of collected data from both the participants to the study and identified relevant documents. Furthermore, the CF of this study provided a framework for understanding the complexities inherent to policy development and implementation.

The inclusion of IPPMT in the CF is justified by the need for any public policy to adhere to the institutional rules, standards, and routines that form the core principles of an institution. The use of RPPMT principles is justified by imperatives of modern public policies, to remain obedient to democratic principles throughout the process of public policymaking (PPMP). The core tenet of RPPMT presupposes the notion of public policy as *process*, *text*, and *discourse*, as each of these dimensions embodies and allows for contradictions and tensions which are the expression of democratic principles.

This study recognises that WP7 (as a text document) and its formulation contexts do not operate in a vacuum but find resonance within an institution that operates with rules, standards, and routines. These rules include policymaking issues such as context of influence, text production, and context of practice. It is within these policymaking issues and rules that the socioeconomic and political contexts of WP7 formulation, that this study seeks to identify and understand, are to be looked at through the lens of WP7's host institution which legitimises the policy (Meyer & Scott, 1983; Scott, 2004). This justifies, once more, the underpinning of the CF on the IPPMT and further positions it as the backbone that echoes and justifies the research problem, questions, aim and objectives (Camp, 2001; Adom, Hussein and Agyem, 2018: 438).

Critical Discourse Analysis (CDA), with a specific focus on the Habermas Theory of Communicative Action (TCA) and Validity Claims (VC), is included into the CF to better

comprehend the historical formulation contexts of WP7 and elucidate its present challenges. According to Janks (1997), this approach acknowledges that social practices are intricately linked to particular historical contexts and serve as mechanisms for both reproducing and contesting existing social relations, as well as serving different interests.

Finally, the theory of constraints (TOC) was also included in the CF of this study with view to providing insights into the potential constraints and bottlenecks inherent to the policy formulation that may have hindered the successful implementation of WP7 such as resource constraints, policy barriers, or organizational limitations. TOC is a management philosophy that focuses on identifying and resolving bottlenecks or constraints within a system to improve overall performance. Including TOC in the conceptual framework allowed for a comprehensive analysis of the factors that may have contributed to the challenges faced by WP7 and helped to inform recommendations for addressing these constraints that should be taken into consideration by the guidelines for the review and reformulation of WP7 that this study intended developing.

The subsequent paragraph, paragraph 3.2, delves into an examination of each of the above-mentioned theories that form the foundation of the conceptual framework of this study while paragraph 3.3 presents the graphical representation of the said CF.

3.1 THEORIES UNDERPINNING THE CONCEPTUAL FRAMEWORK

This section of the study presents, in more details, the above-mentioned key theories that underpin or serve as the foundational pillars to the conceptual framework of this study. These theories have been carefully selected and integrated together to form a comprehensive and robust framework for addressing the research question and guiding the research methodology.

3.1.1 Institutional Public Policymaking Theory (IPPMT)

The Institutional Public Policymaking Theory (IPPMT) is concerned with the need to adhere to institutional rules, standards, and known institutional routines and traditions that are intrinsic to an institution and through which the institution's legitimacy is sought (Lammers & Gracia, 2017; Anyebe, 2018). In other words, IPPMT is preoccupied with the institution's socioeconomic and political aspects from which the institution's legitimacy is derived (Meyer & Scott, 1983; Scott, 2004). Lammers and Barbour (2006) define an institution as an amalgam of well-established, formalised and legalised practices that may include rules, traditions and other rational beliefs that would have stood the test of time and would have acquired features that exceed those of an organisation.

Central to IPPMT is the notion of legitimacy which is perceived by the public policy theory as a form of “social acceptance that results from adhering to regulative and normative organisational policies as well as cognitive norms and expectations” (Lammers & Gracia, 2017: 197). The prominence, resonance and strength of IPPMT is rooted in the entrenchment and unavoidable rules-oriented modern society that humans have come to internalise and accept to live with (Lammers & Gracia, *ibid*: 196). For Scott (2004) IPPMT recognises the legal personality and centrality of an institution, therefore its legal responsibility to set rules which clearly determine behaviour and the conduct of all who are associated with the organisation.

Rules, standards and institutional routines and traditions form the foundation for an organisation’s decision-making process. Scott (*ibid*) contend that institutional rules and regulations emanate from societal underpinnings. Sanchawa (2015) sums IPPMT as the public policy theory through which “public policy is determined by government institutions, which give policy legitimacy, legal obligations that command loyalty of citizens and universality”.

Neiman and Stambough (1998: 449) contend that it is inconceivable to think of any implementation of public policies in the absence of public institutions that give legitimacy to the policy in question. They assert that “...the consequences of implementing policies are mediated through a host of institutional, behavioural, and process-based contexts”.

Institutional rules and regulations can be classified into three groups, namely: regulative, normative, and cognitive rules or social phenomena. Regulative rules are those formal and legally organised rules aimed at entrenching and instilling the rules and laws that must be adhered to. Normative rules are all unofficial societal norms and attitudes considered as appropriate, that have the potential to become intrinsic and accepted by the society based on their spread within the society. Cognitive rules or social phenomena, however, refer to individuals and are intrapersonal. They are self-enforcing and confirming, even though they might not be true from societal perspective.

3.1.2 Rational Public Policymaking Theory (RPPMT)

The Rational Public Policymaking Theory (RPPMT)—also referred to as “social-choice”, “public-choice” or “formal theory” (Anyebe, 2018: 15)—assumes that actors, more so public actors involved in policymaking, have a host of policy options from which they can make a choice that is appropriate to the matter at hand (Hanekom, 1987). This theory is based on the concept of maximum social gains which suggests that the gains or benefits that the policy-in-making is to

achieve (in terms of the social good it seeks to address), should outweigh the cost of making that policy (Hanekom, 1987). The theory is premised “...on economic principles such as the cost-benefit analysis” (Anyebe, 2018: 15). As such, it advocates the rationality of the policy which is determined by means of forecasting. This entails (a) establishing a positive value or outcome (taking into account money values and non-monetary values) as the difference between the values or policy outcomes and the cost of making the said policy, and (b) ensuring that the positive value is greater than any other policy alternatives.

RPPMT has a host of disadvantages which make it difficult to implement in developing countries, such as South Africa. These disadvantages include, amongst others, its tendency to be blind to the “...political environment in which public policy must be carried out” and its exclusion of critical values such as equity and responsiveness (Anyebe, *ibid.*). These deficiencies, in the case of this study, are mitigated by other aspects of the study’s CF which bring about core tenets of IPPMT which speak to the political environments and the inclusion of critical values.

3.1.3 Policy as a process

Policy as a process is realised through the context of influence (CI), context of text production (CT) and context of practice (CP) and it resonates well with the RPPMT as a democratic process. The diagrammatic representation of the CF (Figure 6) suggests that the notion of policy as a process is linear (sequentially from one context to the other), while cyclic as well, given the numerous feedback loops. They are both internal to each context (including the stages within each context) as a result of the evaluation conducted during the context of practice. The cyclic nature can be attributed to high levels of persuasion, negotiations and power struggles associated with democratic public policymaking processes.

3.1.3.1 The Context of Influence (CI):

The ideological, socioeconomic, and political direction and content of any public policy are shaped during the context of public policymaking (Selden & Helms, 2006: 161). The context of influence (CI) serves as a platform for power relations, struggles and compromises. It is through the CI that the social problem for which the need to formulate a public policy is identified and the policy agenda crafted. The Context of influence (CI), as a process, finds expression in the policy as *text* and *discourse* during problem identification and agenda setting. The encryption of the problem and agenda pave way for the commencement of the Context of Text Production (CTP). The media and those who control it define the social reality (Cukier, Bauer & Middleton, 2004). The

Influence of the media in the CI positions the media's agenda for elevation to the public policy agenda.

3.1.3.2 The Context of Text Production (CTP)

This context comprises both, the actual policy formulation, and its eventual text production. It encapsulates and depicts "... the process of transforming public demands (identified through problem identification) into outputs" (Selden & Helms, 2006: 163). This is where ideological compromises are encrypted and concealed into the policy text. The resulting policy text is ultimately a compromised document of concealed ideological differences representative of dominant forces (Smith, 1973, Knoepfel et al., 2011).

The CTP will help in determining the rapport of forces that existed in the CI (policy as process) through an investigation of the text production which emanated out of the identified problem and set agenda. Thus far, the policy as process, text and discourse, provides insights relating to (a) socioeconomic and political factors, (b) ideological views of the key policy formulators, and (c) can be used to establish how the ideological views influenced all the three dimensions of a public policy.

3.1.3.3 The Context of Practice (CP)

According to Bain (1992), the policy implementation stage is perceived as the easiest stage of policymaking process yet it is not. The linear representation of the context of practice (CP) following the context of text production is sound. Policymaking CP involves policy formulation, implementation, and evaluation. Traditionally and practically, a document (text) is produced following discussions regarding what the document is going to be about and notes on what actions are to take place from the document. Secondly, the document is actioned (implementation/practice). This leads up to a third stage during which an evaluation of the practice takes place.

It is through an assessment of the current state of affairs (implementation) that we get to see what worked and what did not. It is through engaging with policy as a process that we get to understand why some aspects worked and why some did not. Many of the previous value-driven assessments conducted on WP7 found expression in the CP. The added dimension this study brings is that of looking at the influence of the formulation context employing this CF.

3.1.4 Policy as texts

Osman (2002: 38) refers to public policies as "...broad statements that reflect future goals, aspirations and guidelines for carrying out those goals". The CF acknowledges the notion of public policies as *texts* that are often the foundation for decision-making and actions. Policy *texts* often reflect, not only the discourse of the time of formulation, but also the power dynamics of that time. Ball (1993: 13) contends in this regard that "... policy texts enter rather than simply change power relations". Regardless of Ball's (ibid.) contention, policy texts remain compromised documents, even though the reality is that the strongest makes less or fewer compromises while the weakest makes more. It is throughout these compromised documents that government attempts to repel conflicts from various different interest groups that more often differ in ideological underpinnings (Ball, 1993; Bell and Stevenson, 2006; Chisholm, 2005b; Rivzi & Lingard, 2010; Ralarala, 2019).

The CF is justified as a tool for revealing concealed compromised ideological contradictions and tensions in WP7's text with a view to understanding WP7's implementation challenges. All texts are prone to differing interpretations, and WP7 is no exception. Being a compromised document, policymakers do not have full control of meanings that users attach to the texts, and this increases the chances of implementation challenges (Ball, 1993). Being a compromised documents also means that policymakers do not have full control of meanings attached to the texts which, however, gives rise to differing interpretations of the texts, thereby increasing the chances of implementation failure (Ball, 1993).

3.1.5 Policy, as a discourse

Larry (2001) refers to "discourse" as any human species' written and spoken communications taking place through a particular mode and context of communication. In this context, discourse is a written and spoken coded type of language associated with ICT in education, developed by an intellectual and social grouping. Language, viewed from a Critical Discourse Analysis (CDA) perspective, ignites *discourse* and when language is around an idea, it produces a debate and debates are illuminating (Wall, Stahl and Daynes, 2014). It is in this context that Ball (2015: 2) - quoting Butler (2005:22) - speaks of policy discourse as a framework that facilitates human thinking and engagement on their institutional-self, themselves, and others, to the extent of forming "... a 'regime of truth' that offers the terms that make self-recognition possible".

According to Dittmer (2010: 275), discourse is nothing more than the use of language, including "...other forms of communication, such as body language, interactions, symbolic acts, etc." Ball (1993), however, insists that discourse is more complex than the use of language. It further involves the power relations amongst actors which eventually dictates a form of discourse, hence its prominence in a related public policies. It is public policies that structure, prescribe and direct the management of public goods and our lives, and we submit to those who control and dominate policy formulations. These perspectives of policy as discourse policies are "... represented differently by different actors and interests" (Ball, 1993:11). As such, Bowe, Ball and Gold (1992) contend that policymakers cannot, with certainty, be sure that those entrusted with policy implementation will, regardless of how best they might try, decode the meaning of policy texts.

This justifies the call by Lall (2007) for the need to conduct a discourse analysis to scrutinise the policy *texts* to derive the real meaning of the texts. Ball (1993) argues, in this regard, that there is no such thing as real meaning in view of the compromised nature and the blurriness of the produced texts. The importance of policy as discourse is important for this study as it seeks to determine the selection of participants and to understand the discourse (voices and power of the strongest) of the time of WP7 formulation which directed its implementation/actions. To understand the interplay between the text and its interpretations and implementation, this CF includes critical discourse analysis through Habermas TCA as the framework for analysis.

3.1.6 Overview on the Theory of Constraints (TOC)

The Theory of Constraints (TOC) has been in existence for more than three decades and has evolved to be used in many sectors for improving systems performance. In its most prosaic sense, the TOC not only helps detect or identify factors that might be constraining the achievement of set objectives and goals but also and methodically helps in addressing those obstacles with a view to eventually attaining the set objectives and goals. It is described as "...a management philosophy which is focused on the weakest links in the chain to improve the performance of systems" (Şimşit, Günay, Vayvay, 2014: 930). Various researchers have noted that there is always at least one weakness that causes a bottleneck for system effectiveness and efficiency (Sabbaghi & Vaidyanathan, 2004; Youngman, 2009; Şimşit et al, 2014).

In the context of the TOC, the success of any system should not be limited to the attainment of the overall objectives and goal of such an individual system, but it should, instead, be able to gauge the extent to which the inputs (the achieved objectives and goal) of that individual system do contribute to the overall outputs of the organisation (Şimşit, Günay, Vayvay, 2014). In other

words, if particular policy outcomes are considered successful, yet such successes do not contribute to the system-wide success, then the policy outcomes cannot be regarded as successful. Such a case demonstrates grave misalignment between that particular policy of an organisation with the overall system-wide's goal and objectives.

The key constructs of the TOC that form part of its thinking process include the following:

- (1) Current Reality Tree (CRT);
- (2) Evaporating Cloud/ Conflict Resolution Diagram (CRD);
- (3) Future Reality Tree (FRT);
- (4) Prerequisite Tree (PRT); and the
- (5) Transition Tree (TT).

To ease the “complexity of policy constraints”, the five constructs are summarised into the following three thinking process proposed by Goldratt (1992) and also referred to by Sabbaghi and Vaidyanathan (2004: 9). The three thinking process include:

- (1) What has to change? (Inclusive of CRT & EC/ CRD) in relation to which constraint(s)/ bottleneck(s)?
- (2) What should it change to? (Inclusive of FRT)? What should be done to eradicate the constraints?
- (3) How to change (inclusive of PRT & TT)? How do we implement the change (convert those ideas into effective action and reality)?

Figure 3.1 (below) by Sabbaghi and Vaidyanathan (2004: 10) depicts the above thinking process of the TOC, which is embedded in the CF, with a view to using the theory to inform the review and reformulation of WP7.

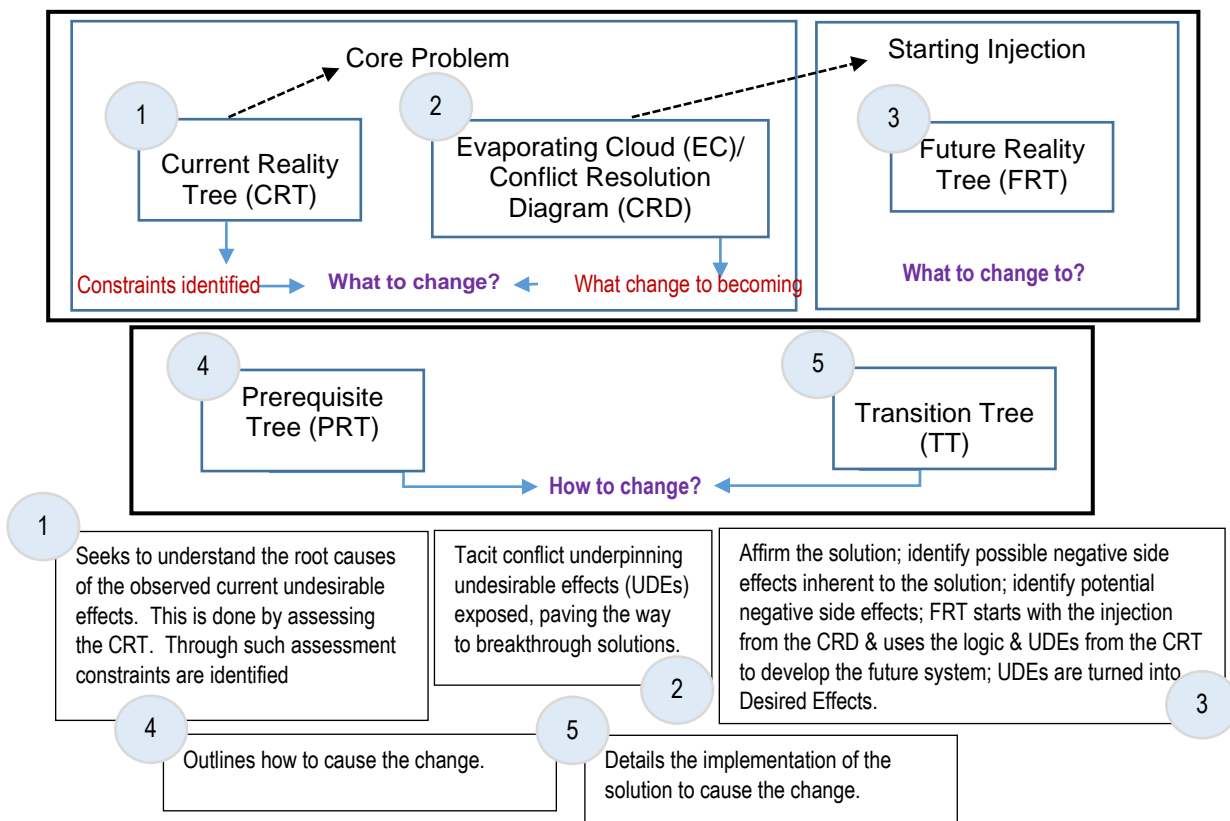


Figure 3.1: TOC thinking process by Sabbaghi and Vaidyanathan (2004: 10)

The following sections briefly describe each of the constructs:

3.1.6.1 The Current Reality Tree

Following identified effects (referred to as “undesirable effects [UDE]”) of a system’s failure to attain its own set objectives and goal(s), the current reality tree construct (CRT), according to Sabbaghi and Vaidyanathan (2004: 10), offers a platform for establishing the causes of such conditions. Key to the exercise is the grasping of the problem for which the system was initiated. It is through it that the identification and understanding of what needs to be changed, for the optimal operation of the system and its eventual attainment of the desired outcomes, will emerge.

In the context of this study, the reported failure of WP7 to reach its set objectives and goals constitutes the UDE of WP7 whose causes have been revealed by various value-driven studies as already stated in this report. These include: teachers’ reluctance to integrate ICT into their teaching, lack of connectivity in schools, slow uptake of ICT, among others (Howie & Blignaut, 2009; Padayachee, 2017). Following the very same UDEs of WP7, this study sought to establish

further causes of WP7 CRT and their underpinnings, but from the policy formulation influence perspective.

3.1.6.2 The Evaporating Cloud (EC) / Conflict Resolution Diagram (CRD)

In addition to the identification and understanding of the causes of system failure UDEs, it is extremely important to dig deeper to expose “hidden conflicts and underlying assumptions” of the UDEs. The evaporating cloud (EC) or conflict resolution diagram (CRD) provides a platform for conducting such a thorough investigation through which the “breakthrough solutions” are to start emerging. These are solutions that epitomise the sought “*what to change to*”. In other words, the EC/CRD construct assists in identifying the “specific needs” and “action” of the opposing sides in the conflicts and their “common goal”, thus paving the way for breakthrough solutions (Sabbaghi and Vaidyanathan, 2004: 10; Gupta & Kerrick, 2014).

3.1.6.3 The Future Reality Tree (FRT)

The FRT stage starts with the injection from the EC/CRD and uses the logic from the CRT to develop the future system. That is, turning the undesirable effects (UDEs) into Desired Effects (DEs). At this stage of the process, these solutions would still be raw, isolated, and unpackaged. Furthermore, there is no certainty that they are free of undesirable built-in side effects (inherent to any new solution) which need to be identified and dealt with, before they become new stumbling blocks to the attainment of the set objectives (Gupta & Kerrick, 2014; Sabbaghi & Vaidyanathan, 2004). It is during FRT that the desired outcomes and outputs are also plotted.

3.1.6.4 The Pre-requisite Tree (PRT)

Using the pre-requisite tree (PRT) construct, a thorough assessment of the newly designed/ plotted future reality tree can be conducted to identify obstacles that might be inherent to future solutions. One can also develop, for each identified obstacle, an immediate or corresponding objective in order to overcome associated obstacles (Sabbaghi & Vaidyanathan, 2004; Youngman, 2009; Şimşit et al., 2014). In so doing the PRT assists a great deal, in the planning of the implementation of solutions crafted which outline how to cause the change. This includes establishing which planning is important as failure to plan well may invalidate or undermine the plotted future solution.

3.1.6.5 The Transition Tree (TT)

The Transition Tree (TT) construct details the implementation of the solution to cause the change. Taking over from the PRT, the TT assumes that the crafted solutions for which it has the responsibility of developing a detailed implementation plan for, are cleansed. That is to the extent that any obstacles which could hinder the realisation of the designed solutions are addressed (Mabin, 2015). It is in during this phase, in a case of policy formulation, that due diligence is taken with regards to the crafting of a detailed implementation plan that takes into consideration appropriate resources, including human resources, fiscal and otherwise, dedicated to the implementation of the policy.

3.1.7 Critical Discourse Analysis and Habermas' Theory of TCA-VC

3.1.7.1 Critical Discourse Analysis (CDA)

Critical Discourse Analysis (CDA) is one of the oldest fundamental models for analysing discourses— in their written or spoken forms—with intent to uncover hidden and embedded ideologies, power relations and their dominance (Johnson, 2014; Sharififar & Rahimi, 2015). CDA stems from the field of human communications. It is used as strategic instrument for distortion and manipulation of others. Yet communication—through any means, i.e., language as its instruments—is aimed at facilitating mutual understanding and the coordination of actions through “... reasoned arguments, consensus, and cooperation” (Habermas, 1984 in Bolton, 2005: 1; Cukier & Thomlinson, 2005). Habermas refers to such communication as an ideal speech situation.

Sriwimon and Zilli (2017) as well as Cukier and Thomlinson (2005), however, contend that CDA interrogates, analyses, and exposes how languages and texts (instruments of communication) are used by social powers to abuse the powerless and dominate them. This is done through concealing the deeds, in most instances, by means of public policies or other means of communication. Sharififar and Rahimi (2015) argue that revealing or illuminating discourses' hidden ideologies, including their hegemonies, which are embedded in text, is the major concern of CDA. Thus, it demonstrates how languages, texts and any communication tools are instruments that embed deep rooted ideologies for the manipulation of the masses but also for the production and reproduction of ideologies (Sriwimon & Zilli, 2017; Hasan, 2016). Fairclough (1995) posits, in this regard, that hegemonic ideologies that are reproduced in texts, including in research disciplines, can be easily assessed and unmasked by appropriate application of CDA.

This study is theoretically premised on the notion of public policy as process, text and discourse which is in congruence with Fairclough's (1995) contention about the three levels of analysing a discourse. They include analysis of discourse as: (a) text which requires a descriptive analysis, (b) a practice which speaks to the process of text production, distribution, and consumption, and (c) a social practice as it relates to the relationship between social structures (reality) and the rationale behind the production of text.

3.1.7.2 Habermas' Theory of Communicative Action (TCA)-Validity Claims

To answer the research questions, a critical analysis of WP7's process of formulation and its content was essential. The Habermas' Theory of Communicative Action (TCA) – Validity Claims (VC) (Habermas, 1984; Habermas, 1984 in Cukier et al., 2009) was identified as the appropriate framework of analysis for this study. This was premised on the grounds that all discourses, whether written or spoken, intrinsically imply "Validity Claims" which create material conditions for understanding a discourse and critically analysing it (Cukier et al., 2009). It presupposes an ideal communication situation which is inclusive of: (a) an ideal speech situation that is communicative and intended to achieve mutual understanding between parties in communication and (b) an ideal speech that is strategic and intended to achieve success for the speaker (spoken or written). While the former is likely to produce cooperation among communicating parties, the latter is likely to produce various outcomes including hostile ones. Figure 3.2, adapted from Cukier et al. (2009: 178), depicts the intricacies of "Communicative and strategic action" and "distorted communication" which form the two folds of an ideal speech.

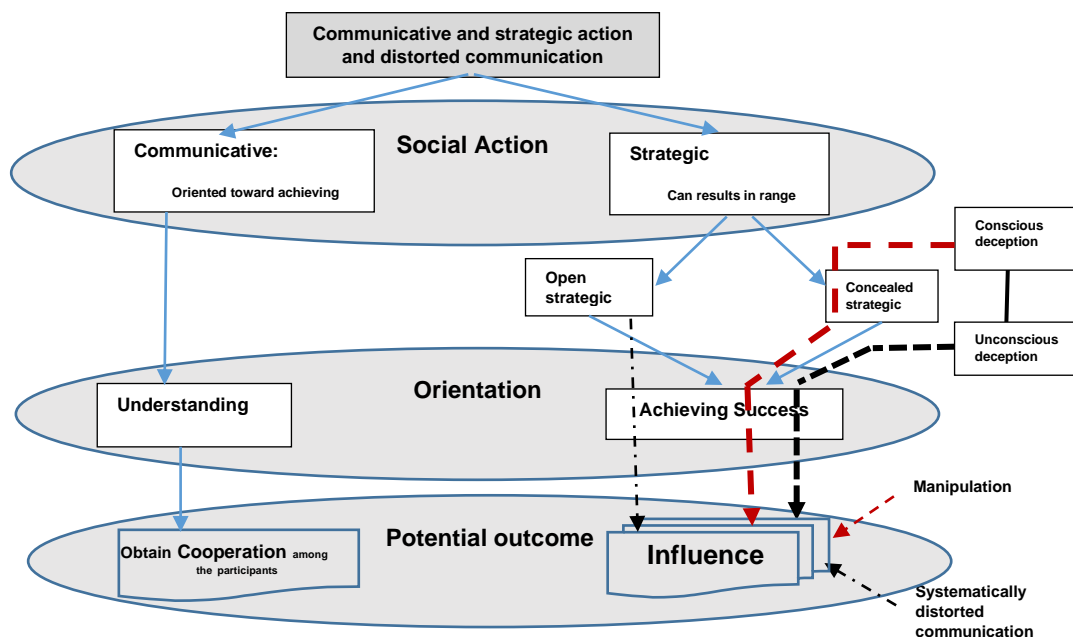


Figure 3.2: Communicative, strategic and distorted communication

Habermas' (1984) communicative and strategic action and distorted communication (Cukier et al., 2009) is consistent with Ball's (1993) contention. That is on how policies are relentlessly contested through battles about different contradicting influences, tensions, and ideologies whose representations are encrypted/coded. They require decryption to be well understood since there is a likelihood of miscommunication or distortion of the message.

It is in this context that Habermas (1984) in Cukier et al. (2009) posit that everyday communication (spoken, written or symbolic) tacitly implies "Validity Claims". That is through our every communication, there is always an attempt to be:

- 1) Clear (comprehensibility claim), through our grammar, logical and lexical semantics, in order to be well understood;
- 2) Objective, by stating or conveying what is universally factual or truth (truth claim);
- 3) Legitimate (legitimacy claim) in view of legally accepted norms in relation to one's social structure, and;
- 4) Authentic or portraying some level of sincerity (sincerity claim).

An ideal speech situation, however, is arrived at only on condition that the four characteristics of "Validity Claims" hold true. That is, the two parties in communication (the speaker and the listener) agree on the validity of the claims constituting the discourse. Otherwise, contention should be

declared to set up mechanisms to facilitate understanding and eventual agreement (Chigona & Chigona, 2008: 47). For Habermas, understanding, analysis, questioning and unearthing of true meanings of any communication depends on the *Validity Claims* (VC) given the fact that every communication implies that the existence of Validity Claims. This is to say, the analysis of texts, according to Habermas, should test the validity of each *validity claim*. Ball (1993) contends that policy interpretations and translations that inform policy implementation constitute the process of decrypting the encrypted texts that could have been consciously or unconsciously encrypted during the policy enactment phase. It is this decryption of the text that TCA-VC is concerned about. This study, through TCA-VC, sought to decrypt encrypted WP7 formulation's inherent compromised contradictory ideologies which might have contributed to its implementation challenges, and consequently the non-attainment of its objectives and goals.

Table 3.1 below contains clear guidelines on how to conduct a Validity Claims (VC) tests:

Table 3.1: Guidelines for conducting a Validity Claims (VC) tests

Competence	Three world concept	Claim	Criteria for ideal communication	Explanation	Potential distortion	Validity test	Speech elements for empirical analysis
Linguistic		Comprehensibility/clarity	What is said is audible (or legible) and intelligible.	Clarity of the claim (grammar, logical and lexical semantics).	Confusion	i. Is the communication sufficiently intelligible? ii. Is the communication complete? iii. Is the level of detail too burdensome for the reader or hearer?	Completeness of physical representation. Syntactic and semantic rules.
Communicative	Objective	Truth	The propositional content of what is said is factual or true.	Claim should stand the test of factuality and objectivity.	Misrepresentation	Is evidence and reasoning provided sufficient?	Argumentation.
	Subjective	Sincerity	The speaker is honest (or sincere) in what she says.	Detect the speaker's intention (through inference not observation).	False Assurance	To what extent is what is stated consistent with the manner in which it stated?	Use of connotative language/ Hyperbole Metaphors/ Jargon and the rationale of such use.
	Social	Legitimacy	What the speaker says (and hence does) is right or appropriate in the light of existing norms or values.	Claims should be in line with socially accepted norms in line with the social milieu.	Illegitimacy	Are competing "logics" (e.g., Stakeholders) equally represented?	Use of "experts" and "authorities" to support the legitimacy of the claim.

3.1.7.3 Ideal Speech Principles and the Operationalisation of the TCA

1) The Three Principles of an Ideal Speech Community

Cukier et al. (2009) propose the following three fundamental principles and four steps as features for applying the ideal speech, i.e., the universal pragmatics, to the analysis of discourse or any texts:

a) Principle 1: Assuming Ideal Speech Community

It is proposed that through this principle (Assuming Ideal Speech Community) the analyst has:

- i. To assume/take a position that the text under investigation is naturally oriented towards achieving *mutual understanding*;
- ii. To ensure that (albeit the position taken [previous bullet]) each text is duly tested in order to establish the veracity of the validity claim;
- iii. To be wary of the fact that discourses should not only be considered as communicative but also as redeemable when implicit validity claims are contested. Wall et al., (2014) state in this regard that the assumption of the ideal speech community presupposes *framing deceptive communication* as an instance of hegemony that can be challenged to re-establish an ideal speech community).

b) Principle 2: Assuming any Deception is Primarily Unconscious

While deceptive communication can be conscious or unconscious, the analyst is:

- i. To assume that any deceptive communication is unconscious, i.e., not deliberate. This is done to prevent the analyst shifting their attention to individual/institutional ideologies rather than those contained in the texts under investigation (Cukier et al., 2009; Wall et al., 2014). This, however, should be seen as an attempt to exonerate the critical analysis of individual/institutions, in cases where they are subjects of the investigation. CDA is suited for critiquing institutions and their hegemonies as well (Fairclough, 1995; Wall et al., 2014).

c) Principle 3: Test all documents/ texts for Each Validity Claims

- i. The analyst is compelled to subject the text under investigation to each of Habermas Validity Claims in order to establish whether there is deceptive communication or

not. Any detected failure has to be taken seriously and suggestions for improvement provided.

2) Steps for operationalizing the Theory of Communicative Action (TCA)

Research suggests that Habermas never provided any unequivocal guidance on how to operationalise the application of TCA (Chigona and Chigona, 2008) but many scholars have done so. For instance, Cukier et al. (2009) propose the following steps to operationalise Habermas TCA-Validity claims:

a) Defining the corpus (principled collection of authentic texts) of data to be analysed

- i. This step entails the description and explanation of the context of each unit of analysis. To do so Cukier et al. (2009) suggest that first, a description of the unit of investigation (that may include the research participants) be undertaken;

b) Content analysis and coding procedure

- i. First identify the "...empirical observations pertaining to the validity claims with a view to determining the frequency of use for each specific argument";
- ii. Proceed to the textual analysis through coding to identify the dimensions of the speech that signify each validity claim. This is to establish meanings. Fairclough (2003) in Johnson (2014) suggests that the entry point into the analysis should be the identification of what he terms as "cruces" (the moments of crisis in the data or texts (policies) to be analysed).

c) Reading and interpreting the empirical observations

- i. It is during this step that the search for any implied Validity Claims is conducted and tested following the model suggested by Cukier et al. (2009) as depicted by Table 7 (above: p.75). This exercise helps identify empirical observations that negate the validity of claims made in the texts. Fairclough (1995) refers to it as textual interpretation.

d) Explaining the findings

- i. Findings emerging from the interpretation of the empirical observations are explained.

3.2 THE CONCEPTUAL FRAMEWORK OF THE STUDY

The conceptual framework (CF) of the study, represented in Figure 3.3 below, illustrates the expressions derived from the theories examined in the previous section (section 3.2).

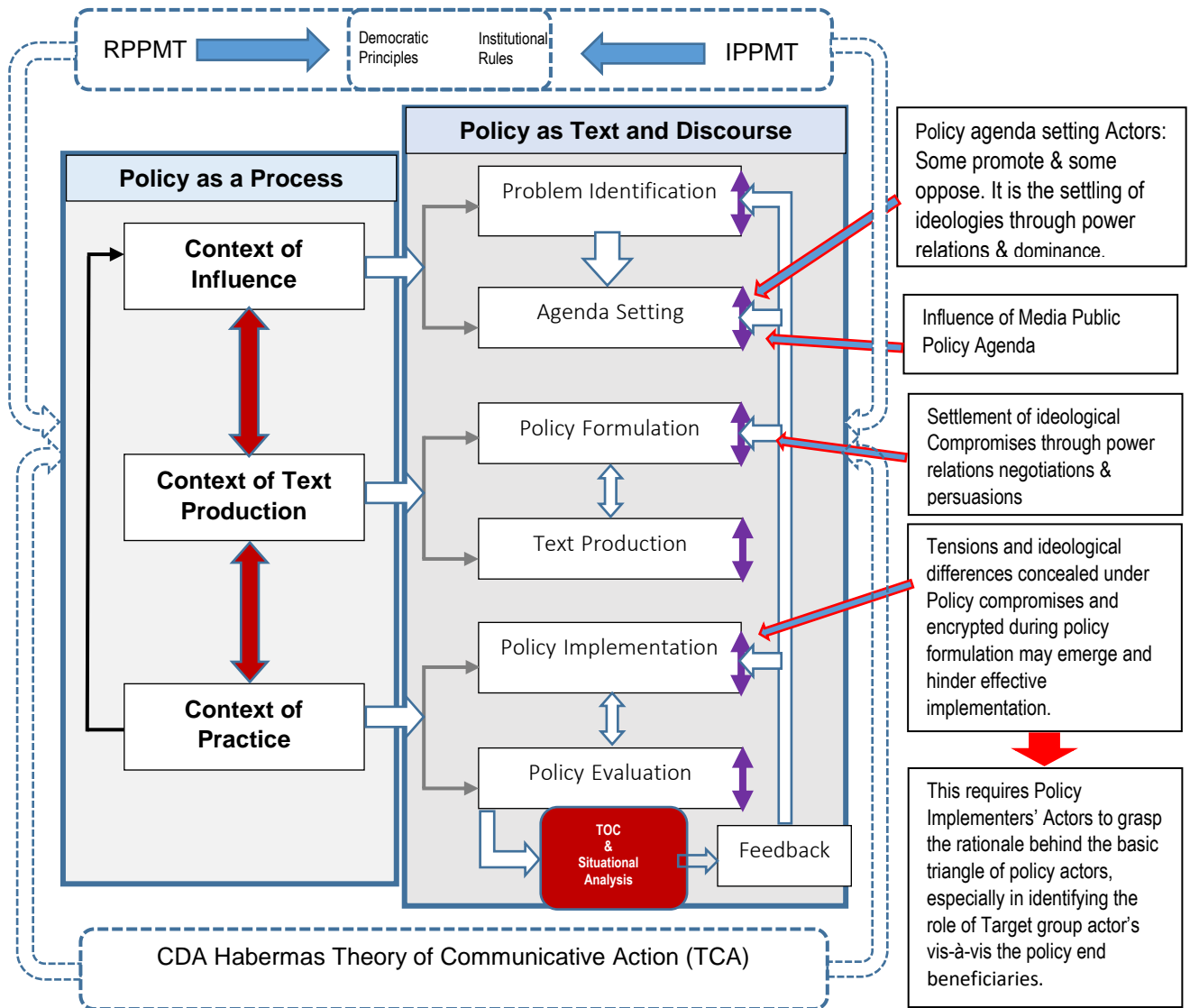


Figure 3.3: The Conceptual Framework of the Study

3.3 SUMMARY OF CHAPTER THREE

Informed by the study's aims and objectives, as well as the literature review, the conceptual framework (CF) of this study established itself as the backbone that directed the undertaking of this study. It is in this context that through an amalgam of theories that were found to be responsive to helping answer the research questions that the CF directed the choice of:

- 1) An appropriate literature review which provided insights on contextual formulation factors. The review provided insights on the critical aspects of policy formulation in general, and points relevant to the context of WP7's formulation;
- 2) The research methodology section explained factors associated with the study design and approaches, strategies for data collection, data analysis and interpretation. The CF further helped in revealing the researcher's positionality, vis-à-vis research.
- 3) A match for purpose framework for data analysis, the critical discourse analysis (CDA), especially the Habermas Theory of Communicative Action – Validity Claims (TCA-VC) which was found to be critical for both data analysis and interpretation. Arising from the notion of policy as process, text and discourse embodied into the CF, CDA was identified as the correct theory for unravelling WP7's concealed contradictions, compromises and tensions, in its three dimensions (of text, process, and discourse). This assisted in understanding WP7 context of formulation, key for the attainment of the study's aim.
- 4) The Theory of Constraints (TOC) deemed appropriate for anchoring the development of guidelines for the review and reformulation (GRR) of WP7 given its alignment with the study's drive to understand, from WP7 formulation perspective, what *did not work* as a basis to projecting *what to change* to and *how*.

The following chapter (chapter four) presents and discusses the research methodology and design by outlining strategies and approaches used to, effectively, answering the research questions.

CHAPTER 4: RESEARCH METHODOLOGY AND DESIGN

This chapter begins by providing a brief overview of accepted research paradigms. Thereafter, it discusses the researcher's self-identification or positionality with regards to knowledge generation, and research in general. Reflecting on the researcher's positionality in relation to research is critical for any scientific study as it reveals the existing relationship between one's ideological underpinnings and the way the research question is formulated (Creswell, 1998). Research suggests that the disclosure of the researcher's positionality vis-à-vis research helps in establishing whether the research question and the research to be undertaken are congruent with the researcher's belief about knowledge and its generation (ontological, epistemological, and axiological beliefs) (Creswell, 1998; McGregor & Murnane, 2010). Chisholm (2005b: 82) contends in this regards that:

"... the relationships between subject and object, or the researcher and researched, are intimately linked...the obligation is on the researcher to profess their standpoint, connection with, and understanding of the events being described and analysed... particularly important when the subject is a process connected with the state and policy".

The chapter elaborates on the study's inclination to a specific paradigm which speaks to the philosophical tenets underpinning such a paradigm. It describes the research methods and how they relate to the study's paradigm and researcher's positionality. The appropriateness of the methods are discussed in relation to the research questions and associated aims and objectives.

The structuring of the chapter was inspired by Saunders, Lewis and Thornhill's (2000) onion metaphor, illustrated by below in Figure 4.1. The metaphor serves as the guiding framework for the study methodology. In line with the onion metaphor, the following are discussed in the chapter:

- Research Paradigm and Researcher's Positionality to Research
- Research Methodology;
- Research Approach and Strategy;
- Research Design;
- Research Methods;
- Data Analysis, and
- Judging the study's Trustworthiness

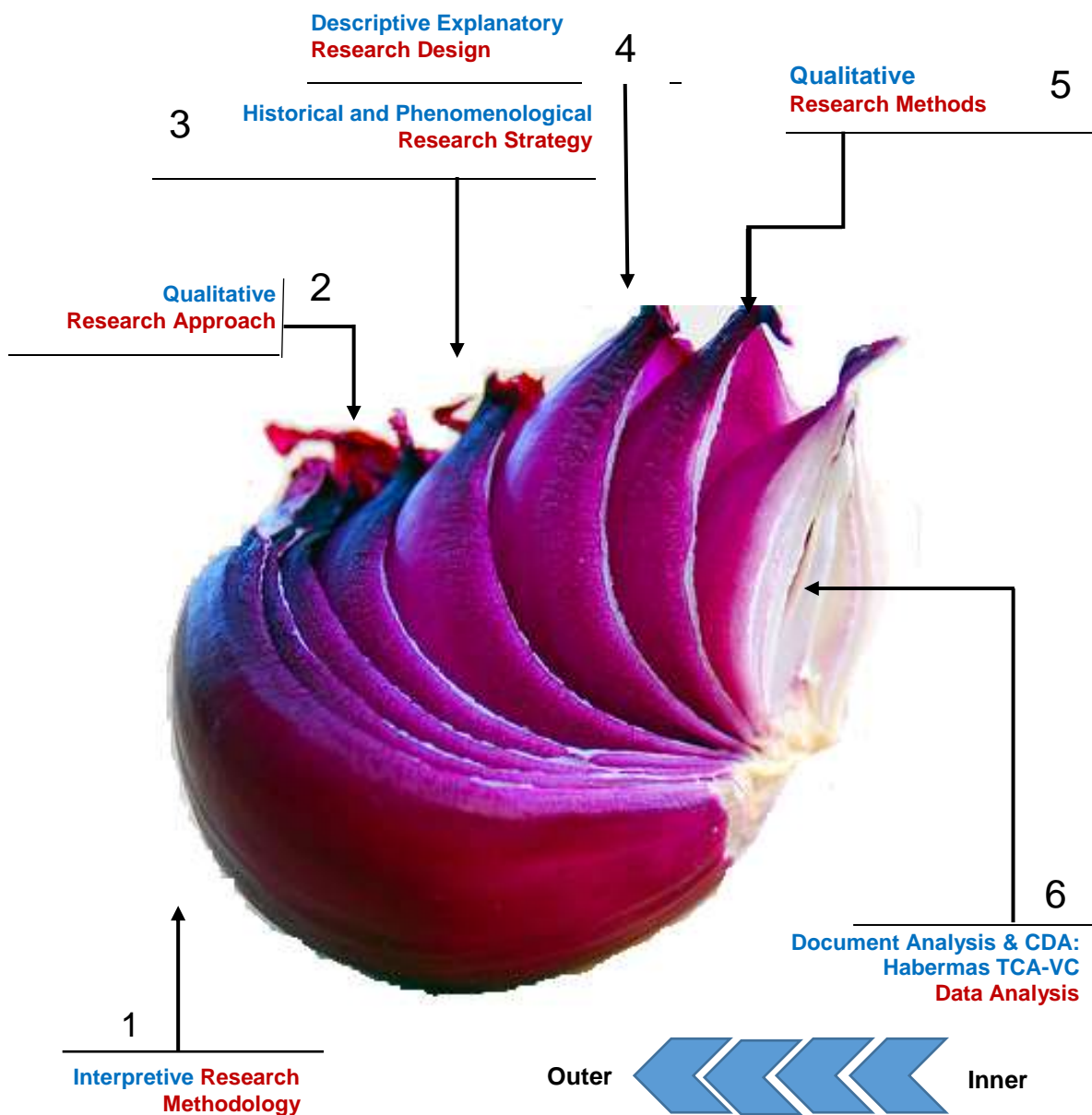


Figure 4.1: Onion metaphor - six layers or research design strata

Prior to discussing the study's paradigm, methodology, approach, design, methods and the data analysis, the following section of the chapter recaps the study's concern and interest and how they relate to all the sections discussed in this chapter.

4.1 RECAP ON THE STUDY'S CONCERN AND INTEREST

Before giving an account of the strata of the study which follows Saunders et al. (2000) onion metaphor, it is important to recap what the study is about. The causes of WP7 failure to reach its set goal and objectives have been widely researched and established (Mooketsi & Chigona, 2014; Vandeyar, 2015; Padayachee, 2017). This study was triggered by the concern that most discussed causes mainly emanate from value-driven assessment studies which have not factored in the impact of policy formulation context on implementation. They (causes of WP7 failure) are therefore incomplete as they do not provide us with a full understanding of the causes of WP7 failure which may result or have already resulted in misguided interventions. This study sought to understand the socioeconomic and political context under which WP7 was formulated and establish its influence on the policy process and content, with a view to determining the impact on its implementation. Ultimately the study sought to develop guidelines for the review and reformulation of WP7. Considering the study's aim, its main research question was:

How has the WP7 formulation context affected its quality and implementation that is necessitating the development of guidelines for its review and reformulation?

The research question informed not only the study's aim and objectives but the choice of the literature review, the conceptual framework (CF) and the subsequent sub-questions of the research. Table 1.1 contains all the sub-questions that are key for answering the main research question. It includes the investigative actions, research objectives and instruments to use.

The research questions and the knowledge sought by the research - which themselves are informed by the researcher's positionality to research - dictated the choice of the research paradigm of the study, presented by the following section.

4.2 RESEARCH PARADIGMS AND RESEARCHER'S POSITIONALITY

4.2.1 The Research Paradigm of the Study

This study was underpinned by the post-positivism research paradigm. The perception of reality and the world, embodied in the study's interest to understand the socioeconomic and political context that prevailed during the period of WP7 formulation—which were directly associated to human being-making, therefore product of their consciousness—justified the choice of this paradigm. This was further affirmed by the type of knowledge sought by the study, encapsulated by its research questions. The latter also showcase of the values and ethics espoused by the researcher and how they relate to the research participants. In fact, the study's drive to

understand—from both research participants and key documents, including the policy itself—how the context of WP7's formulation could have contributed to WP7's implementation failure, revealed the intangibility and subjectivity nature of the sought knowledge, therefore the suitability of the chosen paradigm for the study, the post-positivism paradigm.

More details on the two prominent research paradigms, including the Positivist and Post-Positivist Research Paradigms and their associated methodologies and methods can be found in appendix B, read together with its sub-sections (B1, B.1.1 and B1.1.2).

4.2.2 Researcher's Positionality to Research and Knowledge Generation

This study draws on my personal experience and interactions with colleagues at various levels of the South African education system: school, provincial, and national. As a teacher, I have been part of the resistance to integrating ICT into daily teaching and learning due to our perception of ICT as disruptive and commercially driven, rather than as a tool to enhance educational experiences and outcomes.

My perspective was further shaped by my transition from the classroom to national and provincial levels, where I had the opportunity to monitor and evaluate ICT integration at the national level and be involved in the implementation of WP7 at the provincial level. Through these experiences, I have witnessed the challenges of implementing WP7 and struggled to reconcile its intended goals with the realities on the ground. This led me to question the causes of WP7's failure and prompted a deeper exploration of the policy's perspective.

In terms of epistemology, I believe that knowledge is not an objective entity waiting to be discovered, but rather a human construct. I align with the constructivist view that teaching and learning involve the creation of knowledge by all participants, including learners and teachers. I see knowledge as subjective, shaped and reshaped through acquisition, sharing, and interaction. Ontologically, I do not see reality as a fixed and measurable entity against which research findings should be tested. Instead, I view reality as socially and historically constructed, influenced by sociocultural and environmental factors. I reject the idea of complete researcher neutrality and emphasise the active role and voice of both researchers and participants, as human beings are central to their own lives.

These beliefs align with the post-positivist paradigm that underlies the research question of this study.

4.3 RESEARCH METHODOLOGY FOR THE STUDY

Etymologically speaking, methodology is defined as a “...branch of logic that shows how abstract logical principles are to be applied to the production of knowledge” (Online Etymology Dictionary, 2017). It is the research question (the way the question is posed) that determines or gives an indication about the type of knowledge to be generated. This is usually indicative of the researcher’s positionality vis-à-vis the pursued knowledge and how it is to be generated (Atieno, 2009; Creswell, 2014). This implies a consistent logic on the type of data to be collected and how it should be collected (McGregor & Murnane, *ibid*; Atieno, *ibid*; Bunniss & Kelly, 2010). Simply put, it is the research methodology (philosophical tenet upon which the researcher and the research find expression) that informs the research methods.

As already indicated, this study was underpinned by the post-positivism approach to research, which was dictated by the type of knowledge pursued by the researcher. Such knowledge required a thorough understanding of the unit of analysis from which meaning could be generated (Creswell, 2014). In other words, the generation of knowledge pertaining to the context of WP7 formulation and the impact of such context could only be the result of a thorough understanding of what transpired. Cohen, Manion and Morrison (2007: 21) argue that the interpretive approach to research is best suited for situations when there is a need to “understand the subjective world of human experience”. Correspondingly, this study sought to identify and understand, from human experience (in view of the researcher’s research positionality), the contextual factors that influenced WP7 formulation and their effects on its implementation. To arrive to such understanding, a well elaborated strategy or plan needed to be put in place and implemented, as envisaged in following sections of this chapter.

4.4 RESEARCH APPROACH AND STRATEGY

Research approach and strategy represent an overall master plan which captures, in detail, all the intricacies pertaining to how data is to be collected, analysed and meanings generated. The choice of this tactical master plan emerges from the type of knowledge sought by the study’s main question which is indicative of the study’s philosophical underpinnings (Creswell, 2014).

In view of the main research question of this study, which informed its interpretative nature, qualitative approach, grounded by a historical phenomenological strategy, emerged as the suitable master plan. Though not explicit, the main research question (RQ) tacitly embodies both the *how* (explicit) and the *what* (implicit) question words, therefore its multi-dimensional status that finds expression in the research sub-questions. The explicit *how* question sought the

understanding of the impacts of WP7's context of formulation on its implementation. On the other hand, the implicit *What* question—made explicit by the sub-questions—aimed at identifying the socioeconomic and political context that influenced the formulation of WP7—imperative for establishing the impacts, sought by the *how* question. This meant that the answering of the RQ could not be envisaged in the absence of human constructs. Furthermore, the assessment of the policy itself (product of human constructs embodied by their thoughts, contradictions, and tensions)—in its *process*, *text* and *discourse* dimensions—was very key in the attempt to answering the RQ. As a result, the centrality of human-beings in this study was apparent, hence its qualitative phenomenological strategy. Heidegger (2005) suggests that phenomenological research strategy provides the ideal framework for studying how things appear from the perspective of one's conscience. In view of the potential risks associated with human subjectivity, careful and appropriate qualitative data collection methods were undertaken.

The adoption of a historical element in the study's strategy was nevertheless justified by the fact that the event referred to—the one the '*what*' and '*how*' questions were probing—was a past event. That is to say, an event that "... influenced and shaped the present" (Berg & Lune, 2012: 305) in terms of WP7 implementation. De Chesnay (2015) contends that historical research methods help in better understanding and linking present occurrences to the past, with the ultimate intent of making use of learned lessons to influence the future. Likewise, Cohen et al. (2007: 191) state that the "... historical study of an educational idea or institution can do much to help us understand how our present educational system has come about. This kind of understanding can, in turn, help to establish a sound basis for further progress of change".

4.5 RESEARCH DESIGN

4.5.1 Brief Overview of Research Design

Research design can be construed as a guideline for data collection, data analysis and data interpretation and reporting (Creswell, 2009). It refers, according to De Vaus (2001: 16), to a logical "... structure of an enquiry". Creswell (2014: 3) refers to it as the "...procedures of enquiry" through which the relevant and appropriately collected data facilitate the answering of the research question. Thus the production of knowledge which is the apex of any research endeavour. The choice of research design is best done by looking at the study's research problem, aim and objectives that find expression in the research questions (Basias & Pollalis, 2018). It is, therefore, logical that the research design aligns with the research methodology on the basis that the choice of research methodology is, as well, consequential of the research questions (Creswell, 2014; De Vaus, *ibid*, Creswell, 2009).

There exist three types of research designs. They include: exploratory design, descriptive design and explanatory design (See Appendix C). Trochim and Donnelly (2007) contend that before choosing the research design for a study, effort should be made to well grasp the essence of each design and further understand the existing relationship amongst them. Sub sections of appendix C that include C1, C2 and C3 elaborate on each of the three (3) designs and their correlation thereof.

4.5.2 Research Design for this Study

The research design for this study was descriptive explanatory. This choice was informed by the study's need for descriptive answers to the research questions (key for a complete understanding of the context of WP7 formulation). This was paramount, not only for the aim of the study but also for establishing the impacts of such context to the implementation challenges. According to Lelissa (2018), a descriptive study describes (including description of existing relationships) the phenomenon under investigation. As already alluded to, the identification and description of both the context of WP7 formulation and the philosophical underpinnings of its actors (policymakers and implementers) were paramount to the grasping of the situation that instigated the formulation of WP7. It probably had bearing on the experienced implementation challenges. The '*what*' and '*how*' question words, which formed the basis for the research questions, dictated the answering of the questions to be of descriptive nature. Sub-question 1, for instance, sought to understand the context that led to the formulation of the policy. This could only be better answered by identifying and describing such context. Similarly sub-question 2 pursued the identification and understanding of policymakers' philosophical underpinning with regards to education and e-Education while expected answers to both sub-questions 3 and 4 could only be of descriptive explanatory nature, as well.

Considering the above, it is explicit that the '*what*' questions triggered the need for descriptive answers. The way these questions were asked pointed to a need for further explanation without which the sought understanding would have remained elusive, hence the *how* questions that found expression in all the questions of this study. It is on these grounds that the explanatory design became apparent to the study. De Vaus (2001) contends that the answer to a *why* or *how* question(s) presuppose(s) a relationship between two variables or a "causal explanation" (p.2). In the case of this study, it is the *how* (explanatory) question that dictated further explanation upon the *what* (descriptive) questions, thereby creating a relationship between the description led by the '*what*' question and the explanation resulting from the *how* question.

4.6 RESEARCH METHODS

According to McGregor and Murname (2010), research methods are techniques and procedures that researchers follow to conduct research. The determination of a research method is usually the sole responsibility of the researcher. Such determination should be guided by the type of knowledge sought, indicative of the research methodology and research questions (Creswell, 2014; McGregor & Murname, *ibid*, Creswell, 2009; Atieno, 2009). Further consideration in the choice of the research methods includes issues of practicability, such as the availability and accessibility of key participants to a researcher. Their proximity to the matter being investigated and the time consuming should also be considered (Galletta, 2013).

The research methods (techniques and procedures for data collection) for this enquiry were qualitative. This choice was informed by the fact that the knowledge sought by the study was qualitative in nature. That is, the type of knowledge to be generated was not measurable or quantifiable knowledge hence the use of a quantitative research methods (Basias & Pollalis, 2018; Merriam, 1998). In fact, situating this study in a post-positivism paradigm - thereby interpretivism philosophy/ methodology - was justified by the intended qualitative type of knowledge. The following sections provide, in detail, all the subsets of the research methods for this study.

4.6.1 Data Collection Methods

The study used two distinct but complementary data collection methods. They included semi-structured interviews (SSI) which were conducted with purposefully selected participants and the collection of key documents identified for the study. The decision to make use of multiple data collection sources followed the contention by many, including Merriam (2002) and Yin (1994), who argue [separately] that the qualitative approach to research is best supported when there are multiple sources of data². The advantage of making use of such an approach to data collection lies in the fact that they carry the power of data validation or triangulation which are the foundation for the corroboration of research findings. And further serve as a shield against potential biases that are inherent with a single data collection source (Patton, 1990). They further inspire trustworthiness in the findings produced by a qualitative study, thereby countering quantitative researchers' criticisms regarding the unreliability of qualitative research findings (Qu & Dumay, 2011).

² Although "data" is a Latin plural of datum, it may also be used grammatically as an uncountable singular, as is the case in this study

4.6.1.1 The rationale behind the choice of Semi Structured Interviews (SSI)

Before making a case for the study's choice for SSI, it is important to briefly contextualise the role of interviews as a reliable instrument for data collection, especially in a qualitative study. Cohen et al. (2007) advance that the use of interview, as a credible source for knowledge production, does not only values and dignifies human beings - sometimes regarded as manipulable object in a research endeavour - but interviews are, as well, triggers of social interactions and encounters. This is what justifies the contention by Brinkmann (2020) suggesting that interviews have over the years, proven to be one of the best methods for collecting qualitative data from human beings, hence they are indispensable in any research that depends on humans for knowledge production.

This study, as already mentioned, used SSI on the basis of the study's need to: (a) ensure and secure trustworthiness of participants' data which a structured interview does best; and (b) secure the collection of rich and unscripted data that only a conversational unstructured type of interview could offer (Salazar, 1990; Cohen et al., 2007; Brinkmann, 2020). This meant avoiding the rigidity of structured interviews by bringing in conversational unstructured characteristics of interviews to secure rich data, while at the same time securing some level of structure (order) that was critical for the trustworthiness of collected data. Brinkmann (ibid: 435) points out that it is often those informal conversations that happen after a formal interview (structured) which facilitate the understanding of the interviewee's answers. Similarly, there exists no unstructured interview that is completely unstructured, given the fact that even during an unstructured interview, the interviewer, tacitly, will still have control of the interview proceedings. The adoption of SSI by this study was therefore informed by this warranted mixed-need which was critical for the answering of the research questions.

4.6.1.2 Management of Possible Biases and other Potential Risks to Interviews

Conducting a credible interview - whether SI, USI or SSI - is always a complex enterprise that requires a good level of skills and preparations. Managing interviewer's biases (in the context of a qualitative study) that may arise when the interviewer is also the principal researcher, is one of the challenges that requires attention. That is, to mitigate the risk of prejudiced research findings that might be tainted with the interviewer's own perspectives rather than those of the interviewees. According to Roller and Lavrakas (2015: 83), biases may be triggered by the mere fact of "... interviewer's demographic characteristics" and this may lead to "... false or inaccurate responses from interviewees". An interviewer's awareness of self-biases is therefore of utmost importance (Salazar, 1990).

Cognisant of the above, steps were taken to mitigate biases with a view to increasing the integrity of data. Some of the steps included, amongst others, the following:

- 1) Pre-tests interviews with three individuals who were not participants to the study but were familiar to the e-Education environment in South Africa. Even though the pre-test interviews had the potentials to assist in gauging the possible length of the actual interviews and the appropriateness of prepared questions, the researcher was aware of some limitations inherent to pre-testing of the instrument with different participants to a study. This included the difference in profile between the pre-test participants and the actual participants to the study, which may influence the outcome between the two processes. The research, therefore, remained committed to the prescripts of an SSI by ensuring that the interview is structured while open-ended in terms of the interaction between the interviewer and the interviewee;
- 2) The recordings of pre-testing interviews were independently assessed with a view to establishing whether the interviewer conducted himself in a manner that was not tantamount of triggering interviewee's biases. The feedback assisted in the adjustment of both, prior written questions and the way questions were posed, followed up, probed, and interjected.

4.6.1.3 Time lapse between WP7 formulation and this study

Another factor that was looked at to reduce any risk of interviewees' biases as a potential risk to interview proceedings was the time lapse between WP7 formulation and this study. According to Salazar (1990), the longer the time elapsed between the event being studied and the study, the greater the chances of the participants being out of touch on the matter, therefore the likelihood of less of trust in the outcomes of the research.

In fact, the time that has elapsed between WP7's formulation (2004) and this study (2019/2020) is quite considerable which poses the risk of participants not remembering some facts. To mitigate this limitation, all participants were provided with interview prompt questions prior to the holding of the actual interviews. They were also reminded about the semi-structured nature of the interviews which meant the use of open-ended questions (pre-supposing a mix of conversational but structured interviews). Open-ended questions were aimed at mitigating any negative implications resulting from participants having access to interview questions prior to the actual interviews (Cohen et al., 2007).

4.6.1.4 Prominence of the study's topic to participants

The third interview management factor that was considered related to the relevance of the topic to participants. According to Salazar (1990), participants' positive perspectives on a study's relevance and significance increases their interest and their willingness to participate and accurately contribute to it. This contention was one of the key considerations in the purposeful selection of participants. The fact that targeted participants were actively involved in the formulation of WP7 implied significant interest. It was, on this basis, believed that they would have found the study relevant and significant, hence their willingness to participate. Furthermore, given the fact that this study sought to unearth WP7 formulation issues that could have had some bearing on its implementation - widely reported to have challenges and failed - it was believed to have the potential to draw the attention of purposefully selected participants.

4.6.1.5 Collection of Documents

Another mode of data collection, besides the interviews, was the collection of key documents or documentary evidence. These included the 2004 final and published copy of WP7 and its draft copy (DWP7) which was published for public comments before the final version. The choice of WP7 (as text) was obvious as it is the only document (besides its formulators' accounts) that embodies or bears witness of past occurrences pertaining to the context of its formulation. It is this compromised document that carries ideological contradictions emanating from tensions between actors involved in its formulation. The green paper on e-Education (DWP7) was selected to assist in tracking changes between it and the final version (white). The researcher made this decision with a view to understanding the rationale of the changes, if any, and establish the impact of such on the implementation thereof. The final copy of WP7 was obtained (downloaded) from the DBE website (<https://www.education.gov.za/Resources/Legislation/WhitePapers.aspx>). The DWP7 copy was obtained online facilitated by a Google search (https://www.gov.za/sites/default/files/gcis_document/201409/267341.pdf).

The two documents were key for the generation of knowledge sought by the study (Their copies can be found in Annexure E of this thesis). They justified the use of document analysis and critical discourse analysis through Habermas' Theory of Communicative Action (TCA) - Validity Claims, as mode of analysis for the study. Through them and in combination with participants' interviews, data corroboration was achieved, thereby mitigating data prejudices and participants' biases (Bowen, 2009).

Other collected documents included the 2004–2005 and 2005-2006 Annual reports (ARs)/ Annual Performance Plans (APPs) for the four (4) Departments selected for this study (DoE, WCED, GDE and NCDDoE).

4.6.1.6 Selection of Research Sites and Participants

The type of data sought by the research questions assisted in identifying the type of research participants to be interviewed. In other words, each research question was interrogated with a view to identifying possible categories of research participants. For instance, data sought by sub-questions one and two directed the researcher towards policy actors who contributed to the formulation of the policy (WP7). These two sub-questions sought, respectively, to understand the context of WP7's formulation and e-Education ideological underpinning of its formulation actors in order to establish their influence to the policy text and its discourse. Sub-question three aimed at understanding the process of WP7 formulation and how such process might have influenced the policy content and the extent of its communicative predisposition to its implementation. All this (collected data arising from the lead provided by research questions) culminates in the final investigative action - outlined by Table 1 - of developing guidelines for the review and reformulation of WP7 which is the ultimate purpose of the study.

Considering the above, the main type of participants suitable for the study were policy actors who contributed to WP7 formulation. To arrive at the selection of the actual participants, their locations, in terms of the department/organisations, were purposefully selected. In other words, the research sites were first purposefully determined prior to the selection of the actual participants. This was in accordance with the research questions, aim of the study and its objectives.

4.6.1.7 Research Sites and Criteria for selection

According to Creswell (1998), identifying the correct site(s) is one of the critical indicators for the attainment of the set objectives of any research project. Creswell (ibid: 110) further contends that the determination of a research sample is a "... process of finding people or places to study; gain access to and establish rapport, so that participants provide relevant data". In the case of this study, the selection of the research sites and participants were arrived at by means of purposeful selection, which meant setting up criteria to assist in the selection. The following criteria were used for the selection of the research sites:

- 1) The site should be a public education department that initiated and developed the South African e-Education policy (White paper 7 on e-Education). This criterion aligned itself with

the study's intention to identify and understand the context (socioeconomic and political) that led to the formulation of WP7. This is with an understanding that, "a white paper represents a final comprehensive government policy position on a specific matter" that usually relates to a specific government department and does not, however, "... have any force of law" (The Presidency, 2020: 9);

- 2) Any public education department or non-government institution entrusted with the implementation of WP7 and known (anecdotally or empirically) for its attempt to implement WP7 (computers in school). This criterion was aimed at identifying: (i) government departments, constitutionally entrusted with the responsibility of implementing WP7, which would have shown (anecdotally or empirically) or are known to have relatively implemented the policy; (ii) any non-government institution known for its involvement in the implementation of WP7.

The application of the above criteria resulted in the following three out of nine departments being selected as research sites for the study. Also selected, was one non-governmental organisation, known for its contributions to professional teacher development in ICT integration (DoE, 2004). The purposefully selected sites were:

- 1) The Department of Basic Education (DBE), which was known as the department of education (DoE) during WP7 formulation. This is the national department of education that initiated and developed the e-Education white paper policy and has been its custodian (Isaacs, 2007);
- 2) Three provincial departments: Gauteng department of education (GDE), Western Cape education department (WCED) and Northern Cape department of education (NC). At the time of WP7 formulation, the three provincial departments had the highest percentages in terms of the number of computers in schools and computers for teaching and learning (DoE, 2004; Isaacs, 2007). WP7 states in this regard that: "... Gauteng, Northern Cape and Western Cape have, on average, have better ICT infrastructure" (DoE, 13);
- 3) They were the only three provinces whose average percentages for the two cited categories were above the national average.

Table 4.1 below adapted from WP7 depicts this reality (DoE, 2004: 13):

Table 4.1: schools with computers by province in 2002

Provinces	Schools with computers	Schools with computers for teaching and learning
Eastern Cape	8.8%	4.5%
Free State	25.6%	12.6%
Gauteng	88.5%	45.4%
KwaZulu-Natal	16.6%	10.4%
Mpumalanga	22.9%	12.4%
Northern Cape	76.3%	43.3%
Limpopo	13.3%	4.9%
North West	30.5	22.9%
Western Cape	82.4%	56.8%
National	39.2%	26.5

GDE and WCED are also known for their much talked about Gauteng online, including the recent “paperless classroom project”, and Khanya project, respectively (Isaacs, 2007).

- 4) The fourth and last site that satisfied the second criterion for site selection was SchoolNet. SchoolNet has been notorious in teacher professional development in ICT integration (DoE, 2004; Isaacs, *ibid.*). The organisation operated in this area way before the formulation of WP7 under the banner of an International Development Researcher Center (IDRC) which later became a non-profit organisation. SchoolNet was therefore key and critical for the formulation and implementation of the “guidelines for teacher training and professional development in ICT” which was key for teachers’ change of behaviour in view of the attainment of the policy goal.

4.6.1.8 Selection of Research Participants and Criteria for selection

After the selection of research sites, the purposeful selection of research participants, emanating from the selected sites, followed suit. The selection criteria from the identified sites included the following:

- 1) The participant shall have worked (or still working) at the research site and actively participated in the process of policy (WP7) formulation or implementation as a representative of the identified site;
- 2) A participant was still considered even if they were no longer an employee of the department/organisation represented during the policy formulation/ implementation;
- 3) Participant accessibility and willingness to participate to the study

Table 4.2 below lists all selected sites, the number of participants per site, the unit within the site from which the participant worked or is still working in, and finally the criteria for participants' selection.

Table 4.2: Summary of selected sites and participants to the study

Institution	No. of participants	Unit/ Branch	Criteria
DBE (DoE)	5	Curriculum Innovation and e-Learning (x4 including 2 no longer in the employ of DBE)	<ul style="list-style-type: none"> • Officials selected (National or selected Provincial departments/non-governmental organisation) for their active participation in the formulation or development of WP7 and/ or its implementation thereof; • The official (s) will still be considered even if they have left the department or the unit/ NGO. • Though there was a good mix of gender, gender did not form part of the criteria.
		Teacher Development (x1 - still in the employ of DBE as a consultant).	
GDE, WCED & NCDoE	4	E-education unit (WCED x2 including 1 from Khanya project (both no longer in the employ of WCED, GDE x1 ((still in the employ of GDE) and NCDoE x1 (still in the employ of NCDoE))	
SchoolNet	2	ICT integration in education & Teacher Professional Development (x1 still in the employ of SchoolNet)	

4.6.1.9 Data Collection Process

The identification of the research sites and participants paved way for the planning of the process of data collection. It is, however, important to mention that the planning phase and the actual process of data collection occurred during the very first COVID-19 hard lockdown that commenced, in South Africa, on Monday 23 March 2020. This meant the adoption of a different data collection strategy that had to be commensurate with the new reality and context for both, the interviewer, and the interviewees (Oltmann, 2016).

4.6.1.10 Mode of conducting interview

Initially, and based on the context of the study, the face-to-face (F2F) mode of interviews was envisaged. This was not possible anymore (due to COVID-19 travel and contact restrictions) but interviewing as a mode of data collection remained relevant to the study. Since the researcher could not conduct F2F interviews, telephone interviews were therefore considered. This was not on the basis of them being the second-best mode of data collection but as a result of a thorough assessment that considered the advantages and disadvantages of the two modes. The outcome of the assessment revealed several spinoffs which the study was to gain by conducting telephonic interviews, while at the same time ensuring data integrity and trustworthiness. As suggested by Oltmann (ibid.), the assessment considered two aspects: (a) interviewer context; and (b) interviewee context.

With regards to the former, Table 4.3 below, adapted from Oltmann (2016, shows the parameters considered and the benefits (interviewer context) that telephone interviews brought to the fore in comparison to the F2F interview.

Table 4.3: Interviewer: Face to Face vs. Telephone interview

Parameter	Face-to-face (F2F) Mode	Telephone Mode
Dispersed Participant geographical locations	In view of the scattered (in 4 provinces, 5 different towns) geographic locations of all the 11 participants, the researcher had to undertake costly intensive travelling.	Provided: <ul style="list-style-type: none"> • The prospect of very less time intensive in comparison to F2F, thereby lower costs as there would have been no travelling. • Easy access to participants
Interviewer and participant safety	<ul style="list-style-type: none"> • Inter-provincial travel restrictions due to COVID-19. • General safety associated with travelling, including safety associated with the location and time of meeting. 	<ul style="list-style-type: none"> • Low safety risks as interviews could be conducted in one's comfort and safe space.
Note taking	Capturing of non-verbal languages and cues, by the interviewer, can be noticeable in an intrusive way by the interviewee, therefore the risk of data distortion	Regardless of interviewee being informed of the interviewer's note taking, telephone mode provides an advantage of taking note and out of sight of the interviewee. This saves the interviewee of any disruption that might be brought about by the interviewee's note taking.

Table 4.4 below, however, presents similar benefits associated with telephonic interviewing but from the perspective or context of the interviewees.

Table 4.4: Interviewee context: F2F Interview vs. Telephone interview

Parameter	Face-to-face (F2F) Mode	Telephone Mode
Scheduling	Participant bound to be present at an agreed venue which may be a subject of pressure, thereby an increased rate of dropout.	Provides flexibility as there is no specific space/venue requirement. May therefore increase the response rate.
Privacy / invasiveness	<ul style="list-style-type: none"> • Double swords as F2F can be both more invasive to participants' privacy as much as it can be less invasive in comparison to telephone interviewing. • Exposes participant's non-verbal language. 	Also, double swords as well, though in the case of this study consent was obtained to conduct the interviews telephonically.
Sensitive or controversial topics	Inter-person tensions may influence distortion in responses.	Had the ability, in the case of this study, to ease inter-person tensions that may arise in a F2F mode, thereby increasing chances of accurate responses.

4.6.1.11 Ethical considerations

This research adhered to the general ethical rules of Cape Peninsula University of Technology (CPUT) by ensuring, amongst others, that ethical clearance was granted by the University Ethics Committee (See Appendix G, especially G2). In addition to CPUT clearance, permission to

conduct research was also obtained from the identified Education Departments, including the National Department of Education (DBE), as outlined below:

- 1) Ethical clearance application (14/10/2019) and the awarded Ethical Clearance Certificate (18 Nov 2021, Ref: EFEC 5-11/2019). See Appendix G1 and G2 respectively);
- 2) Applications to selected institutions (employers of potential participants) requesting permission to conduct research with these institutions, through identified officials. The institutions approached include: (i) The Department of Basic Education (DBE, (ii) Western Cape Education Department (WCED), (iii) Gauteng Department of Education (GDE) and (iv) Northern Cape Department of Education (NCDoE). Appendix G4 contains some sample from the approached institutions.

It is important to mention that an application was also made to the Department of Higher Education and Training (DHET) given the fact that one of the earmarked participants (former Department of Education (DoE)) was traced there. It is important to note, however, that despite the granting of permission by the institution (DHET), the official did not consent to participate in the study. With regards to SchoolNet, the institution was not approached given the fact that earmarked participants were no longer working there. They were, therefore, approached in their individual capacities;

It is only upon the ethical clearance being awarded that earmarked participants were approached (in writing) and requested to partake in the study. Fouka and Mantzourou (2011:4) suggest that "...informed consent is the major ethical issue in conducting research". In view of this advice, all purposefully selected participants were issued with consent forms that guaranteed confidentiality and anonymity. The forms further explained in detail, to the participants, the purpose of the study, procedures to be followed and their unequivocal rights to withdraw at any time, without any prejudice, whatsoever (Fouka & Mantzourou, *ibid.*).

Participants who were no longer employed by a selected institution were contacted in their individual capacities. See Appendix G3 that contains sample of signed participant consent letters. Consenting participants were then contacted telephonically for an introductory session, familiarisation with the researcher and in principle agreement to the interview schedule. They were further informed and asked to consent to the mode of data collection. Upon receipt of participants' signed consent letters, the researcher shared the interview prompt questions with all consented participants. Thereafter, all consented participants were further informed of the member-checking of their interviews and the concealing of their identities to ensure anonymity

and confidentiality. Finally, the researcher made a declaration of honesty through declaring that reported findings would neither be fabricated nor representative of the researcher's imagination.

4.6.1.12 Interview Proceedings and Data transcription

The following were undertaken with regards to the interview proceedings and data transcription:

- 1) Interviews were held separately with each participant, on a day and time agreed to by the participant and researcher;
- 2) Each interview was audio recorded, with the consent of each individual participant. The interviewer followed the structure of questions as outlined in the prompt questions shared with each interviewee prior to the actual interview proceedings;
- 3) Since interviews were of a semi-structured nature, the questionnaire shared with interviewees did not have the exact questions but instead prompted the type of questions to expect. This (sharing questions prior to the interviews) was offset by the open-ended nature of the questions, which allowed for follow-up and probing in a conversational atmosphere, free of tensions.

The questionnaire was subdivided into three subsets that were each aligned to the three sub-research questions of the study. Appendix H contains the prompt questionnaire which was shared with all participants.

At the end of each interview, the recording was verified, copied, and safeguarded in different locations, then later transcribed verbatim. Each transcribed interview was shared with the respective participant for validation and consent to use the data. Out of eleven participants, five affirmed the validity of their interview transcripts in writing (as requested by the researcher), while six did so telephonically. Appendix I contains sample of written participants' confirmation of their interview transcripts.

4.6.2 Data Analysis

In view of the multiple data collection methods embraced by the study, data analysis involved both the transcribed participants' interview accounts and the collected documents that included the final published copy of White Paper 7 (WP7) and its draft copy (DWP7). The approach helped to construct and communicate the rational interpretation of the real meaning of WP7 as text, believed to tacitly contain a certain discourse and through which its process of formulation could be revealed. Critical Discourse Analysis (CDA) - through the Habermas Theory of Communicative

Action (TCA): Validity Claims (VC) - was used as the framework for data analysis, especially on collected documentary evidence. Cukier et al. (2009) recommend that the application of TCA-VC commences with the identification of the corpus (the texts subject to the validity test).

The identification of the corpus to be subjected to the data analysis was conducted twice due to the multi-dimensional aspects of the main research question of the study. The research questions further provided guidance on the selection of the two corpora which were later on subjected to a standard document analysis through ATLAS.ti as a tool. The identification of the first corpus focused on the texts that provided insight on the socioeconomic and political context that influenced the formulation of WP7. The texts in question were extracted from the two versions of WP7 (final published copy and the draft copy) and participant’s interview accounts. Table 4.5 below (see ‘content of the corpus’ related to corpus title 1) indicates exact chapters of WP7 and its draft copy (DWP7) that were selected for analysis and the specific participant’s interview accounts related to the socioeconomic and political context of WP7 formulation.

The desire to establish if there was any material difference between the published copy of WP7 and its draft copy - and why, if any -informed the choice to include both copies.

Table 4.5: Identified corpora for analysis

Corpus title	Source	Focus of the Corpus	Content of the corpus
1	<ul style="list-style-type: none"> Participant’ Interviews WP7 DWP7 	Identification of WP7 context of formulation.	WP7 & DWP7: Chapter 1
			WP7 & DWP7: Chapter 3
			WP7 & DWP7: Chapter 4 - The Policy Framework
			WP7 & DWP7: Policy vision
			Participant interviews: answers to research questions one and two (related to the socioeconomic and political context of WP7 formulation and ideological views of key WP7 formulation role players)
2	<ul style="list-style-type: none"> WP7 DWP7 	Impacts of the context of WP7 formulation on its implementation.	WP7 & DWP7: Policy vision
			WP7 & DWP7: Chapter 2 - Policy goal
			WP7 & DWP7: Chapter 4 - The Policy Framework
			WP7 & DWP7: Chapter 6
			WP7 & DWP7: Chapter 7
			Participant interviews: answers to research question three (related to impacts of the process of WP7 formulation to its implementation)

The composition of the second corpus (referred to by table 4.5 above as ‘corpus title 2’) included texts that could assist in establishing the impacts of WP7’s formulation context on its implementation. This was done with “validity claims” in mind as through it the study had to determine whether WP7 was communicative (sought understanding and cooperation) or strategic (symbolic and manipulative). Establishing whether WP7 sought understanding and cooperation (communicative) or if it sought to be strategic (symbolic) was key for the causal relationship

between the context of WP7 formulation and its implementation challenges that led to its arguable failure to reach its set objectives.

The analysis was further aimed at providing validation or corroboration to the document analysis.

4.6.2.1 Document Analysis

The transcripts of participant interviews were consolidated into three different groups or themes in accordance to the study's sub-questions one, two and four. Responses to sub-question three—relating to the process of WP7 formulation—, however, emerged from a deductive analysis of the policy itself and overall participant interviews.

The three main themes that emerged as a result of grouping transcripts of participant interviews, were labelled as follows:

- 1) WP7 context of formulation;
- 2) Policy actors' philosophical underpinnings;
- 3) Development of guidelines to review WP7.

The three consolidated themes added to the raw data from the following three documents:

- 1) The policy document itself (WP7), as the main unit of analysis (corrected notice 1922 of 2004 published on page 3 of Government Gazette No. 26734 of 26 August 2004);
- 2) Draft White Paper on e-Education: Transforming Learning and Teaching through ICT (August 2003);
- 3) Annual Reports (ARs)/Annual Performance Plans (APPs) for the four (4) partaking Departments to the study.

The choice of these particular ARs/ APPs - consolidated into a single corpus - was informed by the fact that these were the performance reports from the early years of WP7's existence. Analysing these documents assumed a possible higher appetite for the allocation of resources, including humans and fiscal, for the successful implementation of WP7. This, in view of the prominence of the dominant discourses of the time, particularly the ICT in education discourse. The reports helped in establishing corroboration between themselves and participants' accounts on WP7 implementation, including its planning cycle (DoE, 2004: 39).

The analysis of the interview data and all other collected documents - inclusive of WP7 and its draft copy (DWP7) and identified Annual Reports/Annual Performance Plans - was conducted using ATLAS.ti, as a platform of data analysis:

- All documents were uploaded individually to ATLAS.ti. They included the following:
 - The three grouped or themed (following the sub-research questions - interview data) interview data;
 - The two copies of White Paper 7, including the final published one (WP7) and its draft copy (DWP7);
 - Identified and relevant (to the study: those related to the years of WP7 publication) Annual Reports/ Annual Performance Plans.
- The documents were extensively coded, individually, by the researcher, using ATLAS.ti code functionality;
- The researcher read each document in a line-by-line fashion in order to identify meaningful qualitative units of data. The latter were inductively coded and categorised. That is, codes were not pre-determined (deductive) but emerged directly from the data as the researcher made sense of it (data) and subsequently assigned meanings which amounted to coding. Codes that were related to each other were later categorised into six code groups.

Table 4.6 (below) depicts the code groups (not in a particular order) and their respective and related quotations or Groundedness.

Table 4.6: Generated codes per Group codes

Code Group	DoE WP7 Gr=98	WP7 Formulation Context Gr=171	Actors' views & ideas Gr=8	Implement- ation challenges Gr=154	Guidelines for review Gr=86	Annual Reports Gr=3	Totals
Case for Policy Review Gr ³ =83; GS ⁴ =6	4	8	0	1	70	0	83
Context of Formulation Gr=113; GS=8	20	68	4	18	3	0	113
Belief about e- Education Gr=127; GS=9	45	53	4	16	9	0	127
Funding dilemmas Gr=63; GS=8	20	20	0	19	4	3	66
Implementation Challenges Gr=41; GS=5	7	24	0	5	5	0	41
Assumptions and Contradictions	52	21	1	65	8	1	148

³ Groundedness of codes (number of quotations coded by a code) or documents (quotations created in a document)

⁴ Number of documents in a document group or number of codes in a code group

Gr=147; GS=7							
Totals	148	194	9	124	99	4	578

With regards to the number of inductively generated codes, there were forty-three (43) in total, from which the six code groups emerged. Each group represented an emerging theme.

It is important to note that besides codes-quotations-relationship, as a way of categorising different pieces of the data, codes were also analysed with view to establishing the kind of relationships that existed amongst them. That is indirectly referring to the relationships that existed between quotations. For example, codes whose existence was caused by another code; codes that contradicted others; those that were associated with others or were part of others; etc. These linkages between codes were explicitly and manually created by the researcher following close scrutiny on how one code could relate to the other. As already mentioned, linking, and defining the relationship between codes meant linking and defining relationships between quotations, thereby creating networks of related quotations through which meaning generation started emerging. Just as an example, Figure 4.2 below portrays how linked and defined codes resulted in the creation of a network, from which meaning were generated. Other Networks can be found in Appendix D (figures D1 to D4).

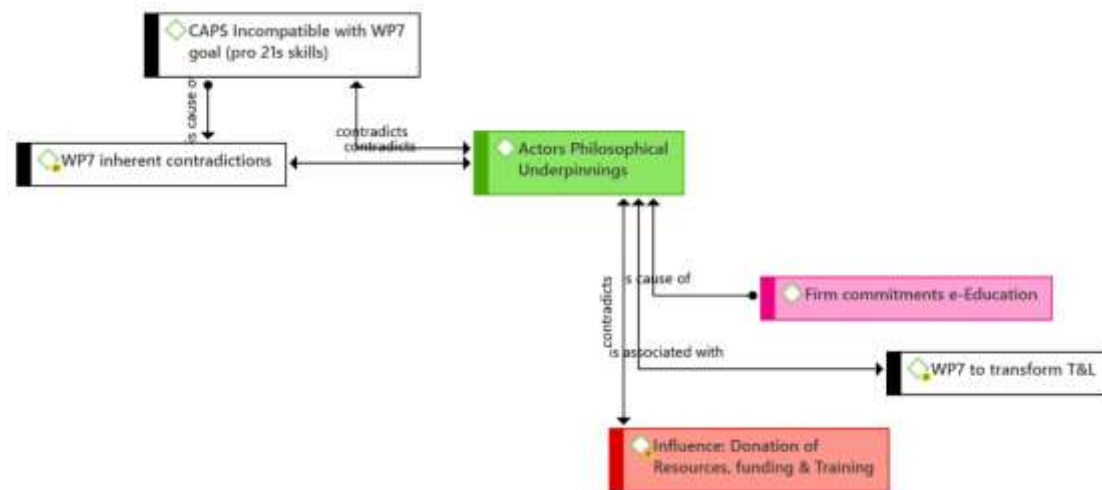


Figure 4.2: Sample of created Networks from the codes

Even though meaning started emerging from the generated networks, as alluded to in the previous paragraph, the understanding of the kind of discourse that WP7 carried was still elusive. Yet, this was key in responding to the part of the main research question that sought to understand the impact of the context of WP7 formulation on its implementation. This aspect called for deep data analysis, beyond standard document analysis. The analysis was aimed at exposing any policy (WP7) distortion or hegemonic ideologies that could have had bearing on the policy

implementation. This is what led to the following section which provides details of the analysis of the second corpus.

4.6.2.2 Critical Discourse Analysis (On the Second Corpus)

Habermas TCA-VC was used as the framework for data analysis with view to exposing and revealing the true nature of WP7 discourse and further assist with the interpretive analysis of the study’s findings. In other words, the second phase of the analysis was aimed at identifying empirical observations related to the validity claims. This analysis was subjected to the second corpus of the study (see table 4.5 above). The main purpose of this analysis was to establish whether WP7 discourse represented a communicative ideal speech situation (intended to achieve mutual understanding between policy formulators and implementers), or if it represented a strategic ideal speech (intended to achieve success for the state, thereby implying that it was symbolic policy that had no intention to achieve what it distortedly claimed to achieve).

The identification of the ideal speech through the selected texts or its absence thereof— which would have amounted to distortion— was facilitated by a series of leading questions formulated for the cause. These questions facilitated the probing of the corpus (Chigona & Chigona, 2008). Table 4.7 below illustrates the said questions which are grouped per each Validity claims.

Table 4.7: Leading questions for the validity claims testing

Validity Claims	Leading Questions
Clarity (comprehensibility)	<ul style="list-style-type: none"> • Is there any jargon/language that is not clear or unexplained? • Is there any sense of communication completeness? • How is the level of details provided?
Truth	<ul style="list-style-type: none"> • What argument is advanced by the text with regards to e-Education, and its role in the improvement of TL? • Was the development of e-Education policy influenced by the need to improve TL? • To what extent does the funding of e-Education demonstrate the desire to transform TL through ICT?
Sincerity	<ul style="list-style-type: none"> • What false assurances are created by the policy through the use of metaphors/ unexplained jargon?
Legitimacy	<ul style="list-style-type: none"> • Whose voice is loud and why? • Whose interest is served/ excluded by this policy? • Who is the legitimating authority/ expert?

A more focused coding process related to validity claims testing was conducted leading to these questions. This second leg of coding was constituted with twelve (12) codes that emerged from the main unit of analysis. The three fundamental principles (Cukier et al., 2009) for successful Validity Claims testing, are encapsulated in table 4.8, depicting the three principles and the actions taken by the researcher in relation to each principle.

Table 4.8: Three fundamental principles for probing a corpus

Principle	Researcher's action
Principle 1: Assuming ideal speech community	(a) Assumed that the investigated corpus sought mutual understanding even though it might have not; (b) Still tested the corpus despite the benefit of the doubt expressed in point (a)
Principle 2: Assuming any Deception is Primarily Unconscious	(a) Deliberately excluded the possibility of deceptive communication being conscious/deliberate in order to remain concept-centered as opposed to author-centered; (b) Despite the above position, still critically analysed the corpus.
Principle 3: Subject each emerging corpus to Validity Claims testing	(a) Subjected each identified text through coding, to the Validity Claims testing, guided by the lead question outlined in Table 19.

Probed and coded texts (quotations) relating to one category were later grouped together. Each validity claim served as a code group, e.g., truth codes-group gathered all codes that identified the presence of factual claims while codes/quotations pertaining to the honesty were clustered in a code group referred to as "Sincerity claims" and so on.

Each of the groups - as illustrated by Table 4.9 - gathered codes that were related to the group name. For example, "Sincerity Claim-group" included codes which categorised corpus or statements that either passed or did not pass the 'Sincerity test'.

Table 4.9: Validity claims code groups

Code Group	No of Code (GS)	WP7 Gr=260	Totals
Comprehensibility Claims Gr=20; GS=1	1	20	20
Legitimacy Claims Gr=33; GS=2	2	33	33
Sincerity Claims Gr=116; GS=2	2	116	116
Truth Claims Gr=158; GS=7	7	158	158
Totals	12	327	327

Codes were colour coded according to the group they belonged to as depicted by Table 4.10 below which illustrates the number of quotations generated by each code from the main unit of analysis, WP7.

Table 4.10: Validity claims codes and related quotations

Code	WP7 Gr=260	Totals
● Clarity: Lacking - Gr=20	20	20
● Correct Assurances - Gr=7	7	7
● False Assurances - Gr=109	109	109
● ICT investment: supported - Gr=13	13	13
● ICT: Advantages - Gr=31	31	31
● ICT: Disadvantages - Gr=2	2	2
● ICT: to facilitate access to education - Gr=34	34	34
● Legitimacy Claims - Gr=21	21	21
● Legitimacy: Loud voices - Gr=12	12	12
● Truth claim - Gr=26	26	26
● Truth: Misrepresentation - Gr=39	39	39
● Truth: Unsupported (no evidence) - Gr=63	63	63
Totals	377	377

In order to make meaning of data generated by the coding, related codes/quotations were manually linked by the researcher and the type of relationship determined. This further led to the creation of networks - as depicted by appendix D (figures D1 to D4) - from which meanings were sketched.

4.7 TRUSTWORTHINESS

Guided by the type of knowledge sought by the research questions which is indicative of the researcher's positionality, this study followed a qualitative approach. As such, its rigour and consequently the confidence it generates are expressed from the perspective of a qualitative research that acknowledges the existence of "... multiple realities and the role of social construction in establishing meaning" (Lietz, Langer & Furman, 2006). The study's trustworthiness is therefore summed up by the extent of its credibility, transferability, confirmability and dependability (Lincoln & Guba, 1985; Trochim & Donnelly 2007). That is, in other words, the extent to which the study's approach and methods were commensurate with the type of collected data, the methods used to collect it, and the how such methods were appropriate to the study, and how data was analysed and interpreted (Connelly, 2016).

The following sections outline in detail how the qualitative concepts of credibility, transferability, dependability, and confirmability were used and adhered to with a view to increasing the study's trustworthiness:

4.7.1 Credibility

This research study used multiple data collection which included:

- 1) The two copies of WP7, including a final copy of the published WP7 (the corrected copy) and the draft copy (DWP7);
- 2) Data collected from purposefully selected participants who, in the main, were actively involved in the formulation process of WP7;
- 3) 2004-2005 and 2005-2006 Annual Reports/Annual Performance Plans of the four (4) selected study sites.

While it is true that the decision to use multiple data collection sources was informed by the research questions, it is equally true that in so doing, internal consistency through data validation and triangulation increased as well. Consequently, this increased confidence in the research findings which are key for the contribution of this study to the body of knowledge.

The credibility of the study and its findings were further ensured, not only, by the suitability of data collection methods, but due to the interview techniques, data analysis and interpretation, and the use of “Member-checking” for interview validations. That is, once recorded interview proceedings were transcribed and set ready for analysis, they were first shared with each participant for individual validation and any possible correction, addition, or retraction (Anney, 2014; Lincoln & Guba, 1985).

4.7.2 Transferability

To stand the test of contributing to the body of knowledge - in terms of how the transferability of the research findings - efforts were made to communicate in detail (tick description) the following research undertakings (Morrow, 2005; Lietz, Langer & Furman, 2006):

- 1) The context of this research, including the researcher’s positionality vis-à-vis research in general. See section 2, paragraph 2 of this chapter 4. The researcher’s positionality also entailed, amongst others, disclosing the researcher’s own reflexivity to the extent of explaining his own sociocultural position;
- 2) The process of data collection, facilitated by Semi-Structured Interviews (SSIs) with purposefully selected participants and the collection of key documents. This was preceded

by a purposeful selection of participants and the respective purposefully selected sites, following set criteria;

- 3) How the researcher mitigated possible biases that are usually inherent in qualitative research and have the potential to reduce research trustworthiness (See Paragraph 12 of Section 5.1 of chapter 4);
- 4) Detailed account of a series of activities that the researcher undertook prior to interview proceedings (See Paragraph 11 of Section 5.1 of chapter 4) and how they proceeded. How they were recorded, safeguarded, transcribed and member-checked prior to their analysis;
- 5) Detailed account on the manner in which collected data was analysed, interpreted and reported (See Section 5.2 of chapter 4).

4.7.3 Confirmability

The section of this report that outlines how “data analysis” was conducted, provides detailed description, including step-by-step processes on how collected data was analysed and interpreted. The main purpose of providing in-depth details was mainly to deliver an audit trail on what was done with a view to facilitating the confirmation/validation of the research findings (Anney, 2014; Lincoln & Guba, 1985). This is to the extent of demonstrating the degree of impartiality and neutrality of the research. It includes the management of the researcher’s subjectivity and the rationale behind every decision that was taken (Connelly, 2016). Gasson (2004: 93) contends that research “... findings should represent, as far as is [humanly] possible, the situation being researched rather than the beliefs, pet theories, or biases of the researcher”.

4.7.4 Dependability

Gasson (2004: 94) contends that “... the way in which a study is conducted should be consistent across time, researchers, and analysis techniques”. That is ensuring that the stability of findings over a period is guaranteed. Techniques used by this study to ensure dependability of findings included ensuring the availability of the audit trail for any independent scrutiny (Anney, 2014; Connelly, 2016). This goes beyond just outlining the process of data analysis but also ensuring that recorded raw data, original participant interview transcripts - including those validated by the participants - are kept and could be made available for establishing the dependability of findings over time. Peer-examination interview questions were conducted prior to conducting the actual interviews.

While the exercise was aimed at gauging potential interview durations and appropriateness of questions, it also provided some level of dependability of the process and the results thereof.

4.8 SUMMARY OF CHAPTER FOUR

This chapter delineated the approach and procedures used to conduct this research. The chapter used Saunders et al. (2000) onion metaphor as its guiding framework. Following this guideline, the philosophical stance of the study, the post-positivism paradigm, was revealed. This choice was informed by the deep interest of the study in comprehending the socioeconomic and political context during the period of WP7 formulation, encapsulated by the research questions which exposed, as well, the researcher's values and ethics, key for the adoption of the qualitative data collection and the selection of the research participants. The study's interpretive qualitative approach informed the choice of the descriptive explanatory research design and this on the basis of the study's need for descriptive answers to the research questions. This paved the way to the choice of semi-structure interviews (SSI) as the appropriate data collection instrument for the study, consequently the choice of Critical Discourse Analysis (CDA), especially the Habermas Theory of Communicative Action, as instrument for data analysis.

CHAPTER 5: RESEARCH FINDINGS

5.1 INTRODUCTION

Research findings constitute one of the critical and important stages of any scientific study. It is through this section that the researcher's quest for understanding a particular phenomenon being studied reaches its apex and reveals the sought truth which is key for the improvement of the object of the investigation. In the context of this study, it is the understanding of the context of WP7 formulation that was sought to establish the impact, if any, of such context on the reported WP7 failure to reach its set objectives. Lessons learned were used to craft guidelines for its review and reformulation to contribute to the successful re-implementation going forward.

This chapter presents the findings of the study which emanate from the data analysis that included a Critical Discourse Analysis used through the Habermas Theory of Communicative Action (TCA) – Validity Claim (VC). The analysis influenced the grouping of the findings into two main themes.

Each of the themes included related sub-themes as portrayed in Table 5.1 below:

Table 5.1: Themes and sub-themes of the findings of the study

Themes	Sub-themes
The influence of socioeconomic and political contexts on the formulation of WP7	The motive of WP7 formulation through the lens of Policy as Process: Influence of Interest group (IG) actors
	The motive of WP7 formulation through the lens of Policy as text: Socioeconomic and political contexts
	The motive of WP7 formulation through the lens of Policy as a discourse: Implementation practices
WP7 and the Ideal Speech (Validity Claim)	Clarity of the text
	Truth claim
	Sincerity claim
	Legitimacy claim

The following Section 5.2 presents the summary of the findings, while its subsequent Section (Section 5.3) outlines each finding in detail with supporting evidence. The chapter ends its course with a succinct conclusion (Section 5.4) that paves the way to Chapter 6 which discusses each finding.

5.2 BRIEF SYNOPSIS OF FINDINGS

The summary of findings is captured in Tables 5.2 and 5.3 (below), based on the themes and sub-themes that emerged from data analysis as encapsulated by Table 5.1 above.

5.2.1 The Context of WP7 Formulation and its Influence Thereof

Findings under this theme emerged from the analysis of the prevailing socioeconomic and political contexts of the period of WP7’s formulation. Underpinned by the Theoretical Framework of the study—that frames public policy as *Process*, *Texts* and *Discourse*—these findings are grouped into those relating to WP7 as *Process*, WP7 as *Texts* and WP7 as *Discourse*. It is found that in its (WP7) Process perspective, WP7 formulation process “disregarded the orthodox or conventional process of democratic public policymaking”.

This is evidenced by the subsequent findings related to policy as process, depicted in table 5.2. From its Texts perspective, however, it is established that WP7 reflects or bears the characteristics of a symbolic policy while being an embodiment of a grandstanding policy, which is evidenced by subsequent findings related policy as texts, depicted by table 5.2. In its Discourse perspective, WP7 is found to have remained both in the rhetoric of the defunct curriculum 2005 (C2005) and the discourse of HIV/AIDS. The subsequent findings related to WP7 as Discourse detailed by table 5.2 below bear evidence.

Table 5.2: Findings related to the context of WP7 formulation

Sub-Theme	Finding Related to Policy as Process
Main Finding	The formulation of WP7 disregarded the orthodox or the conventional process of democratic public policymaking.
Subsequent Findings: WP7 as a Process	<ul style="list-style-type: none"> • White Paper 7 (WP7) lacked clarity on the identification of the Social and or Educational Problem it ought to provide solutions to; • Lack of rules in the selection of policy actors led to the excessive influence of one group of actors over others; • Policymakers’ (WP7) reliance on donations and their sustainability for the attainment of the policy objectives and goal.
Sub-Theme	Finding Related to Policy as Texts
Main Finding	White Paper Seven (WP7), from its textual perspective, embodies the characteristics of a symbolic policy.
Subsequent Finding: WP7 as Texts	<ul style="list-style-type: none"> • White Paper Seven (WP7) lacks sustainable resources and strategy for the realisation of its vision. • The substantive and institutional elements of WP7's Political Administrative Programmes (PAP) not aligned to the minimum standards of an implementable policy.
Sub-Theme	Finding Related to Policy as Discourse
Main Finding	WP7 remained entrenched in the rhetoric of the outdated Curriculum 2005 (C2005) and the discourse of HIV/AIDS
Subsequent Findings: WP7 as Discourse	<ul style="list-style-type: none"> • WP7 remained entrenched in the rhetoric of the obsolete Curriculum 2005. • The influence of HIV/AIDS’ discourse on the formulation of WP7 exposed policymakers’ inherent contradictions on the role of ICT in Education.

5.2.2 WP7 and the Ideal Speech (Validity Claims)

Findings related to *WP7 and the Ideal Speech (Validity Claims)* point to the failure of WP7 to pass the Validity Claim tests. It is found that, while WP7 is clear and comprehensive in terms its use of language, there are, however, several instances of untrue and misleading statements that raise false impressions and expectations. Furthermore, the policy (WP7) failed to pass the legitimacy test, despite the presence of clear indications of its attempt to secure such legitimacy, which fall short as a result of its lack implementation’s commitment and binding mechanisms. Table 5.3 below summarises findings related to the theme.

Table 5.3: Findings related to Validity Claims Testing

Main Finding	The validity claims tests showed variations pointing to the policy’s (WP7) failure to pass the Validity Claims test, including the comprehensibility claim, the truth claim, sincerity claim and the legitimacy claim.
Sub-Themes	Findings
Clarity of the text (Policy text)	The study found that WP7, as a text: <ul style="list-style-type: none"> • Is clear and comprehensive in its language; • No trace of unexplained jargon is found; • There are few instances of lack of clarity.
Truth Claim	<ul style="list-style-type: none"> • WP7 advances compelling, contemporary and factual arguments in relation to the importance of e-Education; • Instances of false impression exist; • Untrue statements also exist.
Sincerity Claim	<ul style="list-style-type: none"> • No usage of metaphorical language was found; • False assurances exist; • There exists insincere statements.
Legitimacy Claim	<ul style="list-style-type: none"> • There exists evidence of legitimisation of WP7; • Not all key stakeholders are represented.

5.3 FINDINGS AND RELATED EVIDENTIAL MATERIALS

While Section 5.2 summarises the findings of the study (see tables 5.1 and 5.2), this Section (5.3) presents a detailed account of each of the findings and the respective supporting materials. The Section aligns itself to the structure alluded to in Section 5.1 which subdivides the findings into two main themes, including the theme on “the socioeconomic and political contexts and Influence on WP7 Formulation” (see sub-section 5.3.1) and the one on “WP7 and the ideal speech (Validity Claim)” (see sub-section 5.3.2). In the main the findings, not only, assert the relationship between WP7’s formulation contextual factors and their influence on its implementation but also its (WP7) inability to pass the Validity Claim tests, inclusive of the comprehensibility, truth, sincerity and legitimacy claims.

5.3.1 The Context of WP7 Formulation and its Influence thereof

Findings under this theme relate to the quest for a thorough understanding of the socioeconomic and political contexts that influenced the formulation of WP7 which is key in establishing whether the context of WP7 formulation contributed to the implementation challenges that led to its failure to reach the set objectives and goal.

Insights provided by these findings have pointed to the fact that WP7, at least from its textual perspective, embodies the spirit of the transitional negotiated political settlement (NPS) which ushered in the post-apartheid SA. They revealed that through WP7, the post-apartheid's redress and justice agenda is pursued but within the limitations or boundaries set by the NPS. Such embodiment of the redress and justice agenda is further reflected by the main discourses of the time, including the discourse of curriculum change, the discourse of HIV/AIDS and the discourse on ICT in education. They are all viewed as a quick fix with regards to the need to expand access to quality education for all South Africans.

The following sections outline all these findings. They are presented in a manner that follows the three perspectives of public policies in line with the Conceptual Framework (CF).

5.3.1.1 Findings Related WP7 as a Process

With reference to this perspective, the study found, in the main, that, the formulation of WP7 disregarded the orthodox or the conventional process of democratic public policymaking which paved the way for other formulation flaws. They include the following subsequent findings:

(1) White Paper 7 (WP7) lacked clarity on the identification of the Social and or Educational Problem it ought to provide solutions to

There is no evidence of any social or educational problem that justified the formulation of WP7. Instead, the formulation of WP7—at least from the process perspective— was justified by external conditions, especially the prowess of ICT elsewhere. The policy (WP7) states in this regard that:

This White Paper sets out Government's response to a new information and communication technology environment in education [WP7: p6, para: 3, lines 4-5]

It further outlines the following while silent on the identified social or educational problems which WP7 was to respond to:

Government has the responsibility to ensure that the benefits of e-Learning are enjoyed by all [WP7: p37, para: 7.2, lines 1-2]

the above statements corroborate with some the contentions advanced by some participants. That is the formulation of WP7 did not result from an identified social or educational problem that policymakers would be addressed by the policy. Those participants' statements include the following, advanced by a participant from the WCED, who argued that:

the rest of the world was going in the direction of technology and many of the ministers at that stage of the game did not want education in South Africa to be left behind [INTVEE1: Lines 253 - 254]

In the same vein, the DoE participant suggested that the formulation of WP7 was a direct result of various pressures on the DoE, from a number of organisations, from within the country and outside, who believed that the country was being left out in this regard. She contended that:

Remember we are a new country, so the developed world had some form of program that they implemented in ICT. From institutions such as universities, international bodies like World Bank, UNESCO and all that and Commonwealth of Learning. All these people including [the] private sector in South Africa were approaching the Department to say, we have solutions, implement technology in South Africa you will see wonders [INTVEE3: Line 255 - 257]

It was also established that other internal pressures emanated from both the WCED and GDE which at the time of WP7 formulation were already implementating two 'ICT in education' related projects. These included the Khanya project and Gauteng online project. The following contention is a direct statement from one of the WCED participants:

At the time there were two similar projects running, Khanya in the Western Cape and Gauteng online in Gauteng. Even though their objectives were different, the main aim for both was to put technology into schools, into the hands of teachers and the children. I think there was an awareness in the country that this is something that should be done in all the provinces. There was then an awareness that it is important to set some guidelines for everybody for all provinces to move in the same direction [INTVEE 2: Lines 94 - 97]

The absence of clear indications or evidence of the identification of social or educational problems which justified the formulation of WP7 meant there was no problematisation or articulation of a problem that was inexistent, anyway. This, therefore, suggests that the formulation of WP7 did not follow the conventional process of public policymaking.

(2) Lack of rules in the selection of policy actors led to the excessive influence of one group of actors over others

This finding reveals that WP7 process of formulation was not inclusive of all key policy actors. Those excluded in the process include (a) the target groups (TGs), (b) the policy beneficiaries (PBs) and (c) the negatively [to be] affected interest groups or third parties (NAIGs). The latter included, amongst others, the conventional print media. The evidence of the awareness of WP7 formulators of the absence of the NAIGs—especially the conventional print media—was established by the policy’s (WP7)—in its text dimension—acknowledgement of possible negative impacts that were to arise as a result of such omission. The following WP7 statement implied an attempt to mitigate the omission and alleviate the fear within this group of actors:

Conventional print media, as well as the use of devices such as conventional radio broadcast and tape recorders, will continue to be used in e-schools and will complement the use of digital resources [WP7: p27, para: 5.16, lines 1-3]

The absence of these key policy actors in the formulation process seems to be a direct result of a formulation process which lacked formal rules or criteria for the selection of policy actors. Even though the donations of ICT equipment, software, and the likes are found to have been the reason behind the inclusion or selection of the positively affected third parties (PAIGs). The policy (WP7) provides the list of these PAIGs donors, arranged by their areas of contributions/donations (DoE, 2004: 11-12).

It was further found that, with exception to PAIGs, all other participating actors in the formulation process of WP7 belonged to one set of policy actors. That is, the “*political-administrative authorities*” (PAA) actors who included the following:

- The Ministry of Education at the time of formulation. This included instructional participation by the then Minister (the late Kader Asmal);
- DoE officials tasked with the responsibilities of ICT in Education, particularly those from the Directorate for Curriculum Innovation and e-Learning;

- Provincial department of education representatives, especially those responsible for technology in education, including those from Gauteng and the Western Cape who were already implementing ICT in Education in their respective provinces.

The participation of the above internal public policy actors was affirmed by almost all participants in the study. For instance, the participant referred to as INTVEE3 suggested that it is Mr Asmal who directed the formulation of WP7 but as a guideline or a framework for the coordination of donations in ICT equipment and software that the DoE was inundated with from interest parties (PAIGs). INTVEE3's perspectives corresponded with some points posited by WCED's INTVEE1 who contended that it was Mr Asmal who initiated the formulation of WP7 as a result of pressures from the two provinces that were already implementing ICT in education. He contended that:

Because of the work that the Western Cape and Gauteng had already done, I think that the national department started feeling under some pressure, to start looking at the way in which computers and technology in general could be used in education... certainly from the Western Cape perspective, as I indicated there was, there was some political pressure from Helen Zille [INTVEE1: Lines 242 - 244].

Also included in the cluster of public policy actors or the PAA were officials from the department of communications (DoC). They formed part of this cluster (PAA) on two grounds that DoC was and still is a Government Department. Furthermore, the DoC was and still is the custodian of "all ICT initiatives" in the country. WP7 states in this regard that

Through the Department of Communications, the Electronic Communications and Transactions Act (2002) leads all ICT initiatives in South Africa [WP7: p10, para: 1.15, lines 1-3]

The statement by WP7 corroborates claims from some of the participants, including a DoE Participant referred to as INTVEE8 who contended that the DoC was actually the Department that pushed for the formulation of WP7, following its custodianship of ICT initiatives in the country. He stated that:

The context that probably led to the WP7 and its implementation did not emanate from the Department of Education. The road for this policy emanated from the Department of Communications which had the responsibility to stimulate the population to make use of ICT to facilitate economic growth [INTVEE8: Lines 136 – 138]

The involvement of the DoC is further affirmed by the 2001 amended Telecommunications Act No. 103 of 1996 which instructs the Minister of DoC to work together with counterparts from education to:

Establish an entity to construct and operate an educational network
[Government Gazette, Act No.64 of 2001].

The contents of the Act correspond with a statement by WP7 which states that:

The Departments of Education and Communications will initiate the development of a national education network in collaboration with other relevant government departments [WP7: p31, lines 4-6].

The other participating actors in the formulation of WP7 who did not form part of to the PAA were the PAIGs. They included some computer manufacturers and their proxies, software developers/vendors, some state-owned enterprises (SOEs) in the field of ICT and SchoolNet (non-governmental provider of ICT professional development for teachers). The list of all PAIGs and their donations which earned them the right to participate in the formulation process is contained in the WP7 [WP7: p11-12, para: 1.22].

(3) Unfounded assumption, by policymakers, on the permanency of donations in ICT equipment, by the positively affected actors to the DoE and schools as the basis for the attainment of the policy objectives and goal, predispose the policy to failure.

The formulation of WP7 relied deeply on the influx of donations which the DoE and schools were inundated with prior to and during the period of WP7 formulation. Six of the eleven participants to the study suggested that the formulation of WP7 was prompted by such donations. The following two statements advanced by two DoE participants (INTVEE3 and INTVEE8) reveal how WP7 was imagined as a guiding framework for the coordination and management of donations from the PAIGs. They stated that:

(a) There were so many companies, including private, non-governmental organisations and state-owned enterprises which were donating computers and the likes, but also money. When the Minister of Education asked: 'What is the policy saying about how we should engage with these people? There was no policy. So, the policy was then developed to serve as guide for engagement with all these donors [INTVEE3: Lines 536 - 538]

(b) It was external pressure from especially organisations like Microsoft... I think external influences in terms of making sure that the paper came to life and approximately, maybe 70% of influences [INTVEE8: Lines 184 - 185]

Further credence to the abovementioned findings resides in the fact that WP7 viewed its existence and successful implementation as dependent on the various ICT-related donations which the DoE was inundated with. Thus it (WP7) saw it fit to list all donors and their respective contributions (DoE, 2004: 11-12). This further demonstrates how WP7 depended solely on funding and social corporate investments from the PAIGs. For instance, while the policy (WP7) commits the state through paragraphs 6.5 and 6.9 (see below) to provide funding to support the implementation of WP7, paragraph 6.11 (see below) exonerates the state but lists private funders.

6.5 The Medium-Term Expenditure Framework (MTEF) will provide a sustainable source for the implementation of e-Education, with a greater degree of predictability and accountability for the planning and funding of e-Education [WP7: p35, para: 6.5] and;

6.9 the Department of Education, with other government departments and the private sector, will mobilise additional funds and resources [WP7: p36, para: 6.9].

6.11 Sources of funding will include the following: licensing obligations of telecommunication providers; private sector donations and support from international development assistance agencies; appropriate public-private partnerships to ensure the sustainability of the e-Education policy implementation; and identification of research frameworks for academic research and development, for research bodies and institutions to solicit funding for research in e-Education [WP7: p37, para: 6.11]

The exoneration of the state is further confirmed by the 2004/2005 (period of WP7 publication) report on the financial statement of the DoE to parliament (vote 15 for the year ending 31 March 2005). The report clearly points to the fact that the DoE's allocation of funds to different programmes and projects was based on identified priority programmes or projects.

The report states that "... allocations and reallocations", including "departmental funds, conditional grants and donor funds" had to be "in line with the educational priorities for the particular financial year" (DoE, 2005: 105).

Although WP7 was published in the same 2004/2005 financial year, it does not feature amongst the priority programmes. This justifies the lack of a credible and sustainable source of funding for e-Education. Donations in ICT equipment and software from various funders, as stated by paragraph 6.11 (DOE, 2004: 36), were therefore assumed to be the sole source of WP7 funding. Funds (conditional grants) allocated to provinces were earmarked for priority programmes which included early childhood development, financial management and quality enhancement, HIV/AIDS and primary school nutrition programmes. Tables 5.4 and 5.5 for 2004/2005 (DoE, 2005: 86) and 2005/2006 (DoE, 2006: 94) respectively, indicate the funding provided for the above-mentioned programmes:

Table 5.4: 2004/2005 funding dedicated to priorities programmes of DoE

Expenditure	2003/04	2004/05	Increase/ (Decrease)
Compensation of employees	160 981	174 565	13 584
Departmental operational costs	229 552	211 106	(18 446)
Departmental earmarked funds	21 213	6 077	(15 136)
Subsidies to higher education institutions (HEIs)	8 373 458	9 302 907	929 449
National Student Financial Aid Scheme	544 893	583 200	38 307
Subsidies to public entities in education	35 287	49 341	14 054
Conditional grants to provinces for:			
• Early Childhood Development	85 530	2 470	(83 060)
• Financial Management and Quality Enhancement	212 731	21 683	(191 048)
• HIV and Aids	126 049	134 151	8 102
• Primary School Nutrition Programme	-	832 200	832 200
Other transfers	42 130	7 221	(34 909)
Total allocation	9 831 824	11 324 921	1 493 097

Table 5.5: 2005/2006 funding dedicated to priorities programmes of DoE

	2004/05	2005/06	Increase/ (Decrease)
Conditional grants to provinces for:			
• Early Childhood Development	2 470	-	(2 470)
• Financial Management and Quality Enhancement	21 683	-	(21 683)
• HIV and Aids	134 151	136 293	2 142
• National School Nutrition Programme	832 200	1 112 151	279 951
Other transfers	7 221	12 944	5 723
Total allocation	11 324 921	12 420 081	1 095 160

The above-mentioned 2004/2005 DoE report only acknowledges the publication of WP7 as an achievement as it states:

An implementation plan for the White Paper (e-Education) was approved by provincial heads, and its objectives and strategies are currently being implemented” (DoE, 2005: 35).

The report contradicts itself, however, by advancing that “... PEDs need to develop concise, practical and sustainable implementation plans, in order for the objectives of the White Paper to be met” (DoE, 2005: 35).

The non-allocation of government funding to WP7 is not only observed during the 2004/2005 financial year (year of WP7 publication), where there is no indication of any financial commitment dedicated to e-Education, but also the pattern is the same throughout its lifespan. For instance, the scrutiny of the 2011/2014 Department of Basic Education’s⁵ (DBE) strategic plan (period within which WP7 was to reach its set goal and objectives) revealed that e-Education still did not find expression in the plan in terms of budget allocation, yet the programme (e-Education) had to be achieved during the same period (DBE, 2011: 27).

Wondering about the wisdom behind the reliance of DoE on external partners for the implementation of WP7, INTVEE8 questioned the rationale in the following manner:

How can you setup a policy on the assumption that the status quo of the time will remain unchanged forever? That is, for instance, if Microsoft commits now to provide you with free licenses, free supports, etc. So, you blindly believe that, that will continue forever, therefore you don’t allocate resources and budget and think the policy will be successfully implemented on the basis of hand-outs. What if the donors that you do not have control over decide to stop the support or even sabotage the whole thing because they do see their interest anymore? [INTVEE8: Lines 193 – 197]

INTVEE8’s sentiments were also echoed by a SchoolNet participant (INTVEE4) who stated that:

A lot of things that were advocated in White paper 7 were not very practical [INTVEE4: Line 437]

⁵ Formally known as Department of Education (DoE)

Another DoE participant, INTVEE3, believed that the donations formed part of the tactical move or strategy by the PAIGs as they understood that the formulation of WP7 had the potential to positively benefit their business interests.

He argued that:

Looking back, it appears to me that these donations were not just acts of good philanthropic hearts but they were meant to influence Department spending towards the procurement of ICT hardware and software [INTVEE3: Lines 489 - 490]

INTVEE8, however, was of the view that cognisant of power relations at play, given the influence of the PAIGs, WP7 policymakers contended with simplistic assumptions with no prospect of implementation success. According to him, simplistic impressions were created, and this made them to believe that once donated computers were provided to schools, the dream of equity, redress and the transformation of teaching and learning (TL) would be magically and automatically attained. He stated that:

There were many assumptions made which never materialized, e.g., the policy goal assumed that upon provision of computers and connectivity to schools, etc. learners will be ICT capable. It was assumed that there will be money from somewhere, which provinces would just go ahead and roll out ICT in all schools, that once devices (ICT) are in the schools, they will be secured [INTVEE8: Lines 197 - 200]

INTVEE8's point corresponds with the finding that a number of WP7 statements (not less than fifteen (15)) seem to be simplistic and unrealistic given the non-prioritisation of the policy and its unfunded status. One of the statements suggests that:

Each school will have a dedicated teacher outside the normal staffing ratio to manage ICT facilities and champion the use of ICT in the school community [WP7: p25, para: 5.4]

INTVEE 3 pins down the lack of prioritising e-Education in order to get funded owing to the absence of any formal or informal lobbying of the ruling party on the matter. He held the view that:

The successful implementation of this policy dependent on getting it into the ruling party's agenda through its policy conference. We should have first engaged the ruling party ICT or education subcommittee. This was not done, hence this matter never found expression in the ruling party policy position, and

eventually into its manifesto. This happened because people don't understand the political, the connection between the politics and government [INTVEE3: Lines 1127 - 1129]

Considering INTVEE3's contention, one can establish that e-Education matters did not feature in the ANC's policy conference of 2002. Yet, DoE funded programmes such as the child support grant, the school nutrition programme and the HIV/AIDS strategy.

INTVEE1 (WCED) contended that:

There was some degree of political will, influenced by the rest of the world that already embarked in the direction of technology in education. Many of the ministers did not want South Africa to be left behind. It is this political-will that pushed the DoE to act by starting the process of developing guidelines/ policy for the introduction of ICT in education [INTVEE1: 252 - 255]

This "political will" failed to get expression in the ruling party's 2002 policy conference, during the period WP7 was being developed. The individual preferences of some Ministers, on the matter, failed to reach the institutional level of the ruling party in the manner that other programmes end up getting funded did.

As a conclusion to the above findings related to WP7 as a process, it is clear that the formulation of WP7 did not follow the conventional or orthodox process of policy formulation. The discussion chapter will unpack the consequences of this policy formulation flaw.

5.3.1.2 Findings Related to WP7 as a Text

From its texts perspective, White Paper Seven (WP7) embodies the characteristics of a symbolic policy. The following subsequent finding elaborates more on the finding:

(1) Textually, WP7 lacks resources and a strategy for the realisation of its vision.

Responding to a question pertaining to whether the review and reformulation of WP7 were relevant and warranted, one of the participants from the WCED (INTVEE2), posited that:

There were only two parts of the document that need to be reviewed, chapter six and chapter seven. Chapter six because of its contradictory statements and clearly lack of state funding allocation and resourcing, while I have a lot of implementation strategic issues with chapter seven [INTVEE2: Lines 313 - 314]

This researcher could not find any evidence to support the realisation or materialisation of the policy (WP7) vision of making use of ICT to aid the transformation of learning and teaching. The above identification (INTVEE2) in relation to chapter six and seven, respectively - on the allocation of funding and resources and implementation strategies - bears testimony of the lack of consequence material and a coherence strategy for the realisation of WP7 vision and goal.

White paper 7 (WP7) prominently articulates and demonstrates how ICT can positively contribute towards the transformation of teaching and learning. Thus it (WP7) positions ICT - reflected by its vision and goal - as being capable to facilitate the acquisition of 21st century skills and knowledge needed by all GET and FET learners for their personal growth.

Overwhelmingly, nine of eleven participants agreed that WP7's aspiration for ICT in education for transformation purposes was only *textual* in nature. For example, the GDE participant (INTVEE9) argued that policymakers' failed to translate the policy drive for change expressed by a number of its statements into the actual practical changes within the classroom, in line with the policy's vision. Instead, INTVEE9 noted that the interests of PAIGs which took center stage. She argued that:

There was not much of inspiration and excitement that ensured change in the classroom practice. I think it was those external factors that played a greater role to serve their own interest [INTVEE9: Lines 86 - 88].

In the same vein, the participant from the NCDoe also believed that:

There were no solid checks and balances to ensure solid translation to implementation, if any, at classroom level, at schools [INTVEE7: Lines 198 - 199]

It appears, from the *text* perspective, that pursuing the materialisation of the policy vision (transform TL through ICT integration) was only an affair of the policy *texts* that were so eloquent. For instance, the statements below from WP7, which are fluent and contemporary, relate to the policy adoption or alignment with the *Outcome Based Education* (OBE). The how part, however, of translating these policy statements is unclear. The statements include the following:

- (a) ICT are most effectively applied when viewed as integral to teaching and learning by both learners and teachers. ICT integration supports outcomes-based education, which encourages a learner-centred and activity-based approach to education and training [WP7: p23, para: 4.6, lines 1-4]

- (b) e-Learning is about learning and teaching philosophies and methodologies within the context of outcomes-based education, using ICT in the learning environment [WP7: p19, para: 33, lines 1-2]

While acknowledging the necessity of ensuring equity and redress in view of the socioeconomic conditions of the majority of South Africans INTVEE6 and INTVEE3, both DoE participants, noted their disappointment with the policy. They believed that regardless of the *textual* perspective of WP7 echoing the correct notes, the actual transformation desire - in line with OBE tenets that foregrounded its vision - was lacking. They, respectively, stated that:

Look I must admit that the classroom activity was not the main center. It was more a thing of saying let us just give these people resources. It was more of a political value than turning things around educationally [INTVEE6: Lines 306 - 307]

The emphasis at that stage was not the classroom activities or integration of digital and learning [INTVEE3: Line 286 - 287]

One of the participants from the DoE (INTVEE11) contended that even from the *textual* perspective, up to this point in time, more than fifteen years after the publication of WP7, there was never a national strategy in place to guide the actual implementation. She asserted that:

It is disturbing to realise that after all these years since the publication of WP7, no strategy to direct the implementation has ever been put in place. I wonder, in case something has been implemented over the years, what really informed such implementation if there is no clearly articulated strategy that finds expression from WP7. If this is not an indication of a policy that was just developed for sake of putting something in place, then I do not know what to say, maybe you can tell me [INTVEE11: Lines 859 - 864]

WP7 itself refers to the development of the national five-year e-strategy to “... enable and facilitate electronic transactions in the public interest, including in the education sector” (DoE, 2004: 10). It further commits that “... the Department of Education will adopt a multi-pronged strategy for the gradual integration of ICT at all levels of the education and training system” (ibid: 37) while emphasising Government’s “... responsibility in ensuring “... that the benefits of e-Learning are enjoyed by all (ibid: 37).

In the absence of evidence in support of the materialisation of many of the [correct] contentions made by WP7, the impression created is one of a policy in contradiction with itself that cannot

assist much when it comes to the implementation phase and any idea of attaining the textual goal and objectives. The lack of resources for WP7's successful implementation is an additional challenge. Chapter 6 elaborates more on the matter.

(2) The substantive and institutional elements of WP7's Political Administrative Programmes (PAP) not aligned to the minimum standards of an implementable policy

(A) WP7 formulation Substantive Elements of the PAP:

(i) Concrete Objectives

While as a "White paper", the legal framework of WP7 is established as a *regulatory framework*, in many aspects its objectives failed the tests of *concreteness*, *quantifiability* and *measurability* which are associated with a "*concrete objective*".

- For example, the first strategic objective of WP7 (ICT professional development for management, teaching, and learning) is aimed at ensuring that:

Every teacher, manager and administrator in General and Further Education and Training must have the knowledge, skills and support they need to integrate ICT in teaching and learning [WP7: p25, lines 1-3] .

The objective lacks concreteness, quantifiability and measurability that would have qualified it as a concrete objective;

- Paragraph 5.2 in Chapter 5 of the policy (WP7) is specific in terms of the "professional competency in ICT utilisation" in terms of skills that each manager, teacher and administrator will have to possess. The same paragraph, however, is silent with regards to the *knowledge* and other *support* teachers need to integrate ICT in teaching and learning
- Paragraph 5.3 speaks of collaboration between the DoE and "... the Education, Training and Development Practices SETA to access the skills levy for in-service ICT training programmes". Paragraph 5.4 (WP7, chapter 5) states that:

Each school will have a dedicated teacher outside the normal staffing ratio to manage ICT facilities and champion the use of ICT in the school community [WP7: p25, para: 5.4, lines 1-3]

Yet, the absence of details, specific and definite elements that allow the measurability and concreteness of this subset of the strategic objective is an indication of some level of deficiency in terms of the concreteness of the strategic objective.

- Paragraphs 5.12 to 5.15 elaborate the role of Higher Education, while there is no evidence whatsoever of the involvement of higher education, nor details on how Higher Education will abide to the statements [WP7: p27, para: 5.12-5.15];
- The same pattern is picked up with regards to the second strategic objective (Electronic content resource development and distribution) which involves and commits the “conventional print media” and “conventional radio broadcast” in the development of electronic contents. Yet this category of policy actors was completely absent in the formulation process (see the finding on the “Lack of rules/criteria for the selection of policy actors”). As such, therefore, the strategic objective lacks concreteness;
- The pattern is similar to all the other four strategic objectives as they lack or fail the test of concreteness. That is, they are not specific, nor definite. One of the participants argued that:

A lot of things that were advocated in White paper 7 were not very practical [INTVEE4: Line 437]

(ii) **Evaluative elements**

- While Chapter seven (7) (implementation strategies) has a section on “Monitoring and evaluation” (Department of Education, 2004: 38), evidence suggests that the policy made provisions for the *determination, measurement, and interpretation* of its own assessment with regards to the criteria for measuring its *effectiveness* and *impact fullness* could not be established. This is Even though paragraph 7.12 (chapter 7) speaks of “evidence of success” to be “captured against nationally agreed indicators and targets” (Department of Education, 2004: 38). Though not explicit, it is assumed that those “nationally agreed indicators and targets” are the milestones contained in the “planning cycle” (Department of Education, *ibid*: 38-41). There was, however, no initially determined criteria for measuring effectiveness and impact of the policy to facilitate later assessment. Such criteria cannot be set post implementation (Knoepfel et al., 2011)

(iii) **Operational elements (instruments)**

- With regards to the policy standpoint on the operational elements of substantive elements of the PAP, it was established that the policymakers were, for instance, aware of the critical role of the target groups for its successful implementation, and the need for their change of behaviour through credible incentive packages. Paragraph 5.5 (chapter 5) below bears testimony to this policy disposition (WP7: p26, para: Department of Education, 2004: 26) as it states:

Support in the form of incentives will encourage teachers, managers and administrators to integrate technology into their daily activities and areas of responsibility [WP7: p26, para: 5.5]

Deficiencies in the identification of the target groups, crafting of the hypothesis of causality and the intervention hypothesis, suggest a formulation flaw (see the finding on the “Lack of rules/criteria for the selection of policy actors”). A flaw can cause “... deficits in the implementation of the objectives defined in the PAP and, as a result, considerably diminish the scope of its substantive elements” (Knoepfel et al., 2011: 160).

(B) Regarding WP7 formulation Institutional Elements of the PAP:

(iv) **Political-Administrative Arrangement and Resources**

- The non-adherence of WP7 to the “Institutional elements” of the PAP is evidenced by the finding which speaks to the absence of “...rules or criteria for the selection of policy actors”. This resulted (a) in the excessive dominance of the [to be] positively affected policy actors throughout the formulation process and afterwards, and (b) the inability to craft appropriate and adequate cost of the policy. As a result, the policy (WP7) was predisposition to policy failure.

(v) **Procedural Elements of the PAP**

- It is not clear, at least from the policy text perspective, if policymakers (WP7) planned to deal with WP7 administrative issues through which its implementation’s efficiency and effectiveness were to be predicted or envisaged. The policy (WP7) speaks, however, of the appointment of:

Dedicated expertise...at different levels of the system for the planning, management, support, monitoring and evaluation [WP7: p39, lines 17-19]

While this could mean the establishment of administrative structures for the management and monitoring of e-Education rollout, this is vague, given the absence of a proposed organisational administrative structure and lack of clarity on the reference made to “different levels of the system”. The confusion is further asserted by the policy (WP7) stating that:

In order to increase the administration of education through the use of computerised information systems, the Department will develop standardised templates for management, statistical analysis, record-keeping, and reporting [WP7: p21, para: 3.9, lines 1-4]

It is not known if the assumption was that the administrative efficiency and effectiveness was to be achieved through these templates.

5.3.1.3 Finding Related to WP7 as a discourse

From the discourse perspective, WP7 remained locked up in the rhetoric of the defunct curriculum 2005 (C2005) and the discourse of HIV/AIDS.

(1) WP7 remained entrenched in the rhetoric of the obsolete Curriculum 2005.

The conceptual framework of WP7 and its vision of transforming teaching and learning through ICT are both premised on the principles of equity, justice, and redress, derived from C2005 whose core tenet was the outcomes-based education (OBE). Since the advent of the current National Curriculum Statement (NCS) in 2012, OBE officially ceased to be the philosophical tenet upon which the curriculum is based. It has, instead, remained and still is the underpinning theory for WP7. For instance, WP7 encourages teachers and learners:

To be fully engaged and participative in the teaching and learning process within an outcomes-based approach [WP7: p22, para: 4.1, lines 4-5]

ICT in education, according to WP7 functions better within the OBE approach. This is evidenced by WP7 stating that:

E-Learning is about learning and teaching philosophies and methodologies within the context of outcomes-based education, using ICT in the learning environment [WP7: p19, para: 3.3, lines 1-2]

The learner-centered approach to teaching and learning that WP7 believes can be better facilitated by the integration of ICT in education, particularly in the actual teaching and learning process, is also perceived in the context of the OBE. It is in this context that the policy contends that:

ICT integration supports outcomes-based education, which encourages a learner-centred and activity-based approach to education and training [WP7: p22, para: 4.6, lines 2-4]

One of the participants from the DoE (INTVEE3) indicated that the push for ICT in education and its relation with C2005 and OBE started growing as a result of difficulties and rejections encountered by C2005 when it was launched. ICT were presented by various stakeholders as one the solutions to rescue the rollout of C2005. This is what INTVEE3 advanced on the matter:

When Minister Asmal was appointed, Curriculum 2005 was already facing a lot backlash and rejections. The Minister then appointed a committee to look into the matter. That committee was kind of known back then as “the review committee for Curriculum 2005”. Throughout its work, the Curriculum 2005 review committee was inundated with a lot of calls from all corners, including from big companies and multinationals, for the introduction of technology in education, seen as something that was going to assist the reviewed Curriculum 2005 take-off [INTVEE3: Lines 243 - 246].

As advanced by the literature review for this study, following the recommendation by the Ministerial task team commissioned to assess the RNCS, OBE was finally abandoned on the basis that teachers and departmental officials were persistently confused by the OBE (Department of Education, 2009). Regardless of its abandonment, however, by the main curriculum, OBE remained the principal tenet upon which WP7 is grounded. It is in this context that the policy (WP7) states that:

ICT integration supports outcomes-based education, which encourages a learner-centred and activity-based approach to education and training [WP7: p22, para: 4.6, lines 3-4]

The fact that WP7 is still current and expected to be fully implemented presupposes that any contention or claim about C2005 (RNCS) and OBE still relevant, yet this may be in contradiction with the current curriculum or WP7 could just be ignored given its references to a disbanded curriculum. The discussion chapter elaborates further on the subject.

(2) The influence of HIV/AIDS' discourse on the formulation of WP7 exposed policymakers' inherent contradictions on the role of ICT in Education.

The influence of the HIV/AIDS discourse on the formulation of WP7 has revealed that policymakers did not share the same philosophical understanding with regards to the integration of ICT in education. The analysis of gathered data has suggested that some policymakers fundamentally believed that the integration of ICT in education was to serve a stop gap-measure to mitigate the devastating effects of HIV/AIDS' pandemic on the education system. The integration of ICT in education was, according to this view, perceived as an excellent instrument for the extension of the role of the teacher, given the high number of teachers who were living with or succumbing to the pandemic. For instance, some participants (policymakers) strongly believed that the main purpose of introducing technology in education was proactive in nature, in the light of the looming shortages of teachers as a result of the HIV/AIDS pandemic.

See below, two statements from WCED participants, in relation to the matter:

There was a very real fear at that stage of the game that HIV/AIDS was going to have a massive negative impact on education. If teachers contracted HIV and started dying, the process of replacing them was going to be under strain. Getting around this challenge was, therefore, the use of technology [INTVEE1: Lines 245 - 247]

We were facing in many schools shortage of suitably qualified teachers to teach. We got a feeling that technology can play a role in improving classroom situation [INTVEE2: Lines 105 - 106]

These abovementioned contentions resonate with the DoE annual report for the financial year 2004/2005 (the financial year of WP7 publication). The report states that DoE was well aware of the risk that HIV/AIDS posed to the system and was accordingly making plans to tackle the matter. Reference is made to a study undertaken by the Education Labour Council (ELRC) on the subject. The study found that, out of a sample of 30 000 teachers, 3 300, representing 11% of the sample, were infected. In response to the situation, HIV/AIDS was identified by DoE as one of the four priorities of the sector, which justified the allocation of conditional grants to provinces over the

years to tackle HIV/AIDS (DoE, 2005; DoE, 2006). This report does not, however, suggest that there was a fund set aside for the implementation of WP7 for the cause of replacing dying teachers with technology, should that become reality.

The other opposing view on the matter perceived the role of ICT in education as a tool to comprehensively transform teaching and learning. That is, perceiving education not as a vehicle for the transfer of knowledge but for the creation of knowledge. In that sense ICT were viewed as tools for the facilitation of creation of such knowledge. The GDE participant (not to suggest that the two opposing views represented and opposed the two provinces) amongst others, for instance, stated that:

ICT revolutionise, they change the way education has been thought of, in the sense of perceiving a teacher as a story or facts teller while learners are facts memorisers. In the contrary, ICT, when appropriately used, have the potential to assist learners be part of facts generation, creating their own understanding of these facts, rather than just being told. Appropriate ICT use facilitate their reasoning, creative and critical thinking [INTVEE9: Lines 119 - 122]

The study found in this regard that WP7, from its textual perspective, was more obedient to the transformational view of ICT in education, hence its alignment to the OBE. Yet in its praxis, exposed by the HIV/AIDS discourse, it is the traditional view of education that prevails.

5.3.2 WP7 and the Ideal Speech (Validity Claim)

To expose the circumstantial formulation context of WP7, including sealed ideological differences and contradictions, the policy text was subjected to the Habermas Theory of Communicative Action (TCA)-Validity Claims (VC). This was on the backdrop that texts can not only enable the development of ideal speech but also to distort or obstruct it. Principally, findings related to the validity claims tests showed variations pointing to the policy's (WP7) failure to pass the validity claims test, including the comprehensibility claim, the truth claim, sincerity claim and the legitimacy claim.

The following sections outline the findings of the study related to the WP7 ideal speech testing:

5.3.2.1 Clarity of the Policy text

With exception of a few instances, WP7 is clear and comprehensive in its language, no use of jargon was found, and key words/concepts are well explained. For example, the term "outcomes-

based” is explained/contextualised. The policy states:

ICT integration supports outcomes-based education, which encourages a learner-centred and activity-based approach to education and training [WP7: p22, para: 4.6, lines 3-4]

Similarly, the key word (transformation) in the policy vision is explained, though not in a focused manner aimed at drawing policy implementers’ attention. The explanation is given in Chapter 2 (paragraph 2. p. 16), which states:

In a transformed teaching and learning environment, there is a shift from teacher-centred... to an inclusive and integrated practice where learners work collaboratively, develop shared practices, engage in meaningful contexts and develop creative thinking and problem-solving skills [WP7: p16, para: 2.18, lines 4-9]

There are few instances, however, where clarity is lacking and others where there is none. For instance, the word “quality”, used twenty-eight (28) times in the text, is not adequately explained even though an effort is made in its second time of use. Clarity, however, is not as sharp and easy to understand. The policy states:

Education systems have an obligation to deliver on public expectations of quality education for economic growth and social development [WP7: p8, para: 1.2, lines 1-2].

Some attempts to explain “quality education” are present not clear enough, or they emphasise the view of the policy vision. Instances where there is no clarity at all are also observed. These include, amongst others, no explanation given on terms such as “high-quality” [WP7: p6, para: 4th, 5th, p13, para: 1.31, p16, para: 2.20], “national education goals” [WP7: p14, para: 2.1]

5.3.2.2 Truth claim

The “truth claim” checks the correctness of the text. The investigated corpus revealed that WP7 advances compelling, contemporary, and factual arguments in relation to the importance of e-Education. For instance, paragraphs 2.18, 2.20 and 2.21 [WP7: p16] provide information on ICT contributions to the fight against education inequalities. The statements were scrutinised against the literature and were found to be factual. Some contradictions within the very same paragraphs were, however, present. While their contents are correct, the phrasing of some sentences creates an impression of: (a) ICT being the enhancer of “education reform” [WP7: p16]; (b) ICT being the

one that improves “inventive thinking skills” (ibid.), etc. These contradictions are prevalent throughout the corpus. It is further established that some statements can be easily referred to as untruths, in the absence of grasping the context in which they were written. Read in isolation to the context, this statement may be untrue as regular access is not the only determinant of e-learning success.

The policy states:

For e-Learning to be successful, learners must have regular access to reliable infrastructure [WP7: p22, para: 4.5, lines 3-4]

With regards to funding, WP7 states:

Certain inherent cost implications such as the cost of usage, network rental and maintenance, and the cost of protection are planned for [WP7: p35, para: 6.4]

This is untrue when contrasted with the reality and participant accounts. One participant claimed: “WP7 never had a formal and costed national implementation plan”. Another one said: “It was assumed that there would be money from somewhere which was never the case”.

Furthermore, while it is correct that the Telecommunications Act (Act No. 103 of 1996), amended in 2001, called for the development of an educational network, it is untrue that the same Act called, “... for the implementation of an E-rate for GET and FET institutions” [WP7: p36, para: 6.13]. The E-rate Act refers to the Electronic Communications Act (Act No. 36 of 2005).

5.3.2.3 Sincerity claim

No usage of metaphorical language was found throughout the policy (WP7) text. There are several statements, however, that project false assurances, thus misrepresenting the reality. For example, while the Telecommunications Act does not provide any timeline to construct the educational network, WP7 commits to access such infrastructure (as of 2007) for 50% of schools and all schools by 2013 (DoE, 2004, pp.40-41). The pattern is the same throughout the “planning cycles” of the policy (ibid: pp.38-41). The words “every” and “all” are the hallmarks of the planning cycle. Yet there is no evidence of financial and other infrastructural resources to justify such boldness and assurances.

The policy, for instance, states that by the end of 2007:

Every teacher and manager” would have had “the means to obtain a personal computer for personal use, administration and preparation of lessons”. By the end of 2010, “All institutions” would have had “access to an e-Rate”. By the end of 2013, “all learners and teachers” would have been “ICT capable”, “ICT” would have been “...integrated into teaching and learning in all institutions”, and “all teachers” would have been able to “...integrate ICT into the curriculum” [WP7: pp39-41]

Further false hopes were created by a few statements which actually failed the test of sincerity by the mere fact that WP7 lacked funding commitment for its implementation which was informed by the fact that e-Education was never identified as priority. Yet, as established, funding allocation was based on priority areas.

The already referenced 2004/2005 DoE financial report to parliament states in this regard that:

Allocations and reallocations”, including “departmental funds, conditional grants and donor funds” had to be “in line with the educational priorities for the particular financial year (DoE, 2005: 105).

Some of those insincere statements include the following, though not limited to:

- (a) e-Learning should be the mainstream activity of every institution and classroom [WP7: p37, para: 7.2, lines 4-6];
- (b) The Medium Term Expenditure Framework (MTEF) will provide a sustainable source for the implementation of e-Education, with a greater degree of predictability and accountability for the planning and funding of e-Education [WP7: p35, para: 6.5]
- (c) Based on the above principles, the Department of Education, together with other government departments and the private sector, will mobilise additional funds and resources [WP7: p36, para: 6.9]

The above statements are indicative of false assurances as there is no evidence or any material conditions that were put in place for such forecasting.

5.3.2.4 Legitimacy claim

The legitimacy claim reveals how WP7 sought to legitimise its existence, and in the process, power relationships at play was exposed, including absent key forces/actors. It was established that to ascertain its legitimacy and authority, policymakers used both the concurrence of the global community, SA Government and various stakeholders.

The paper speaks of:

A global revolution... taking place in education and training ...driven by the changing nature of work, the realities of the information age, new global partnerships and an awareness of the need for equal distribution of educational opportunities [WP7: p8, para: 1.1, lines 1-5]

Locally, government served as the principal legitimiser of WP7. The word "Government" is used no less than sixty-two (62) times. Government legitimisation is expressed, amongst others, by the WP7's publication in a Government Gazette. Further legitimisation is provided by the head of state at the time (President Thabo Mbeki) "underscoring the importance of ICT for social and economic development in numerous SA and international fora" (DoE, 2004: 10). The foreword of the policy was done by the Minister of Education (during the time of WP7 publication/release) who in return sought both, government and private sector legitimisation. She contended that "... this White Paper sets out Government's response to a new information and communication technology environment in education". She further argued that "...this White Paper represents a new framework for the collaboration of Government and the private sector in the provision of ICT in education" (ibid: 6)

Many other instances include the following, though not limited to:

- (a) It is for these reasons that Government has been quick to seize the opportunity presented by the practical benefits of ICT to support teaching and learning in the twenty-first century (WP7: p8, para: 1.4, lines 2-5);
- (b) Government will facilitate the establishment of training programmes and small business incubators [WP7: p33, para: 5.58, lines 1-2];
- (c) Other enabling legislative and policy frameworks have been provided by various government departments in support of integrating ICT into teaching and learning [WP7: p10, para: 1.16]

It was further established, in terms of other stakeholders, that those named by the policy were the loudest and powerful. The unnamed, such as the print media, teachers and learners were absent yet key and indispensable actors for a successful implementation.

5.4 SUMMARY OF CHAPTER FIVE

The findings of the study outlined in this chapter have not only exposed the socioeconomic and political contexts under which WP7 was formulated but they have, as well, revealed a series of contradictions in its the motives of formulation. Especially when it (WP7) got to be assessed through the literature known three perspectives of public policymaking, including the assessment of the policy in its process, text and discourse perspectives. The revelation of the contexts (socioeconomic and political) under which WP7 was formulated was facilitated by its *discourse* perspective's assessment. The assessment of its *process* perspective has, however, revealed that WP7 formulation did not follow the orthodox principles of policy formulation, and this was to the extent of failing to clearly identify its policy problem and articulate it with a view to justifying its formulation. Yet, the policy got formulated anyway, notwithstanding this fundamental policy formulation flaw. The finding - through the texts perspective - that WP7 embodies the characteristics of a *symbolic policy* seems to justify its formulation regardless of the absence of the policy problem and its articulation thereof.

While Chapter 5, however, seems to have established or closed the gap in the literature pertaining the causes of WP7 failure to reach its set objectives and goal - by revealing the contribution of the policy itself to its own demise - the following chapter (Chapter 6), discusses these findings in greater detail. It demonstrates how the overall findings of the study add a new dimension to the already known causes of WP7 failure which justified the undertaking of this study.

CHAPTER 6: DISCUSSION OF FINDINGS

6.1 INTRODUCTION

This chapter discusses the findings of the study presented in chapter 5 of the report (thesis). The discussion is aimed at contextualising, attaching meaning and eventually showing significance of the study. In other words, it is through this chapter that findings of the study are interpreted and analysed in line, not only, with the research questions but also the conceptual framework of the study and the literature review. Eventually leads to the demonstration or articulation of the significance of the study, without which the findings might be short-lived, misunderstood or meaningless.

6.2 DISCUSSION OF FINDINGS

The findings of this study were categorized into two main themes:

- 1) The influence of the socioeconomic and political contexts on the formulation of WP7,
- 2) WP7 and the ideal speech (validity claim).

6.2.1 Theme 1: Socioeconomic and Political influence on WP7 Formulation

This theme presents a detailed discussion of findings related to the socioeconomic and political contexts that prevailed during the period of WP7 formulation. The structure of the discussion is aligned to the structure of the findings which finds expression in the conceptual framework of the study and the literature review. The following sub-sections (6.2.1.1 to 6.2.1.3), therefore, discuss findings in the context of WP7 as *process*, *texts* and *discourse*.

6.2.1.1 Policy (WP7) as Process: Discussion

Both the literature review and the conceptual framework (CF) of the study have outlined the conventional process of public policymaking (PPM) which is linear while at the same time cyclic. Linearly, the process starts with the context of influence (CI), goes to the context of text production (CTP), before ending with the context of practice (CP) which feeds back to the CI, thereby creating the cyclic perception of PPM process.

As established by this study, White Paper Seven (WP7) did not follow or adhere to the conventional PPM process. The fact that WP7—regardless of curriculum change— remained locked up in the discourse of Curriculum 2005 (a finding from the discourse perspective of WP7), points to a process that was only linear and stacked in CP and failed to feedback to the CI, therefore the cyclic perception (which on its own suggests non-adherence to conventional PPM

process). The following subsequent findings constitute formulation flaws resulting from not conventional processes of WP7 formulation:

(1) White Paper 7 (WP7) lacked clarity on the identification of the Social and or Educational Problem it ought to provide solutions to;

As articulated in paragraph 5.3.1.1, this study found no evidence of any social or educational problem justifying the formulation of WP7. Instead, the study found that WP7 formulation was triggered by the prominence of ICT in education and the fashionable use of computers in education that were taking place around the world. Furthermore, the concern by the politics in relation to the socioeconomic and material condition of the majority who neglected by the apartheid government justified the rush and the influence of those who were pushing for the ICT in education agenda. This is evidenced by some contentions extracted from the policy (WP7) itself and various participant accounts on the matter, articulated by the above cited paragraph (5.3.1.1).

The literature on public policy formulation, however, suggests that, it is the identification and the clarity of the *policy problem* that should be the genesis of any policy formulation endeavour (Rivzi & Lingard, 2009; Knoepfel et al., 2011). These two elements demonstrate, from the onset, some good level of genuineness in the intent of such policy formulation and its implementation thereof, while the opposite (ambiguity) demonstrates spuriousness of intent. Any clear or unambiguous identification of a *policy problem* includes the mastery of the circumstances behind such identified policy problems and an unquestionable identification and grasp of the context and circumstances of the policy beneficiaries (Knoepfel et al, 2011). While it is not unusual that public policies are often not explicit in terms of the problem they seek to address (Bacchi, 2009) - which makes this finding not a surprise - this is still deplorable given the context and period under which WP7 was formulated. The failure of WP7 to comprehensively identify the policy problem and articulate it sufficiently, in order not only to garner support for its resourcing but also for crafting an appropriate solution to such a problem, constitutes one of the biggest shortcomings or flaws of this policy.

The researcher's view is that, given the fact that the aim of any policy formulation is to solve a problem that could not be solved in the absence of a policy, any ambiguity in such a policy problem is likely to suggest a policy that is purposefully designed with no intention of implementation or simply a pseudo implementation. The ambiguity of the policy problem is not different to a policy that - based on the evaluation of its indicators - is deemed as successful while the problem for which it was formulated remains unchanged. This indicates the misalignment

between the policy objectives, reflected by the evaluation indicators, with the policy problem. Such policies are from their formulation stage doomed to fail because of the ambiguity on the *policy problem*, thereby misalignment with the set objectives and goal.

The contention in this study is that the existence of any uncertainty on the *policy problem* is a clear indication that the policy objectives and goal are ambiguous and not measurable which could, from the onset and to some extent, render such a policy irrelevant. The literature review of this study is resolute in this regard as it contends that any deficiency or uncertainty on the policy problem can only point to a policy that, from the onset, will not be able to solve the real problem faced by its identified beneficiaries, unless that is accidental (Knoepfel et al, 2011). While WP7 clearly states its set objectives, its lack of clarity on the social and collective problem it ought to provide the solution to makes it difficult to ascertain its relevance. Such a policy, contends the literature, stands a chance of having objectives that are misaligned to the *policy problem*, therefore any attainment of the set objectives and goal may not automatically mean policy success (Sabbaghi & Vaidyanathan, 2004). In other words, and hypothetically so, even if from the known value driven studies, the conclusion or the outcome of the assessment of WP7 was that it had indeed attained its objectives and goal, such attainment would have been very much questionable given the ambiguity or its failure to clearly articulate the policy problem.

Currently, what appears to be the social and collective problem which WP7 sought to address is an amalgam of vaguely stated statements referring to the capabilities of ICT in education. For instance, while the policy vision speaks of the transformation of "... learning and teaching through ICT" (DoE, 2004: 3), its goal is about "...every South African learner becoming "...ICT capable"(DoE, ibid: 17). Through both the vision and goal, in the absence of a clearly articulated *policy problem*, one ponders whether the problem that WP7 sought to address was about an education system that was untransformed, in view of a transformed world or if it was about learners who were not ICT capable. This appears to suggest an initial failure of the formal policy formulation process of WP7, that of problem identification. The misalignment between the policy vision and the goal is, in the view of this study, a result of the lack of clarity on the *policy problem*. This opened a gap of multiple interpretations on what exactly the policy aimed to address or to achieve. Naturally and in a case of a policy that genuinely had implementation intents, such a gap has the potential to serve as a pitfall to the policy implementation. In the case of intentional symbolic policy, such a gap would have been a well-orchestrated pitfall aimed at facilitating the non- achievement of the textual goal and objectives.

The fact that WP7 failed to clearly state and articulate the policy problem and further problematise it is concerning. This is on the backdrop of the fact that, as the literature contends, no solution

could be insight in the absence of clearly knowing and articulating the problem (Knoepfel, 2011). This is further indication of a formulation process that did not adhere to the orthodox policy formulation process which dictates that policy formulation commences with the identification and articulation of the policy problem. The latter would have shown the significance and importance of such a policy, key for inscription in the agenda-setting and further into the decision agenda-setting. Such a missing link has more serious repercussions to policy implementation, effectiveness and impact measurement, as it might be an indication of serious deficiencies in the assessment of the political-administrative programmes (PAP). According to Knoepfel et al. (2011), the success of policy implementation depends on the extent to which the assessment of the three elements of the PAP was conducted during the policy programming stage (formulation). That is, ascertaining the extent to which due diligence was undertaken with regards to the legal basis of the policy objectives, the intervention instruments, and the operational arrangement of the public action which includes the policy cost analysis and human capital requirements and its cost estimate.

The researcher contends that the above-mentioned missing link resulted in the misalignment between the policy (WP7) objectives, policy goal and vision. This is evidenced by the fact that while the policy goal was aimed at producing learners who were to be “ICT capable”, its objectives were more focused on the provision of ICT devices to schools, the professional development of teachers in ICT, etc. The policy, however, is silent on how the attainment of these objectives were to contribute to the realisation of its goal that is ICT capable learners. There appears to be a tacit assumption that the attainment of its objectives will magically trigger the achievement of “ICT capable learner”. In other words, the provision of computers to schools and the up skilling of teachers in ICT were equated to learners acquiring both ICT and 21st century skills and knowledge. This hypothesis could only have been correct in the case that the meaning attached to the policy goal (ICT capable) was limited to ICT skills. This was not the case as the goal is explained as “use ICT confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community”(DoE, 2004: 17). Even if this was the case, the achievement of the policy goal was still not attainable because the focus of the policy was never on teachers. Research suggests that the “... lack of emphasis on the teacher” is the nexus of wasted investment in ICT in education in the past few decades (Behar & Mishra, 2015:74).

It is therefore plausible that, from its formulation stage, the policy failed to adequately and comprehensibly identify the *hypothesis of causality* (HC) which may have led to the crafting of a match for fit interventions, referred to as *intervention hypothesis* (HI) (Knoepfel et al., 2011: 57-58). It further failed to conduct an objective assessment of the cost analysis and ensure the

availability of funding and the provision or fourth coming thoughts on other key resources, including human resources. In view of the fact that these are prerequisites of any public policy implementation's success, their omission provided early indications to WP7's impending implementation failure.

The fundamental question however is to establish whether this was a result of policymakers being oblivious of the fundamentals of policymaking, or the policy was from the onset not designed with good implementation intention. Based on the evidence gathered, this study does not believe that policymakers were oblivious of the elements of the PAP. This conclusion is arrived at based on the evidence found whereby WP7 attempts to deal with all three elements of the PAP but in a very superficial manner. For instance, even though WP7 lacks credible legal standing—first element of the PAP—, the fact it is a *white paper*—government's intention towards legislation or regulation— points to a certain awareness of the need to ground such policy in law, though it fall short. Furthermore, WP7 states that “conventional print media will continue to be used in e-schools” [WP7: p27, para: 5.16, lines 1-3]. This is a demonstration of policymakers' disposition to appeasing and managing the negatively affected interest groups which combine with its incentives attempts [WP7: p26, para: 55, line 1] point to the awareness intervention instruments as the second element of the PAP. All failed attempts to securing funding for the implementation demonstrate some level of ensuring the operational arrangement of the PAP.

These attempts, however, whether superficial or not demonstrate some level of policymakers' awareness of these fundamentals. For example, it is established that there was some sort of IH directed to schools and teachers in the form of “ICT-in-Practice Awards, aimed at “...motivating [them] to integrate ICT into their daily functions” (DoE, 2004: 26). The fact that the awards was directed to teachers and schools clearly suggests that these grouping of target groups were correctly identified, even though other groupings (also potential HC) were completely missed or simply ignored. In addition to that is the policy's failure to conduct the cost analysis, including the identification of a sustainable source of funding for the implementation, suggests an ineffective, impracticable, and unimplementable nature of WP7.

This initial conclusion still does not answer the question of how the formulation of WP7 succeeded in getting to the DoE decision-agenda without any identification of the problem for which the policy was to provide solutions to. The circumstantial evidence and the enlightenment provided by the literature review suggest that the success of the agenda item on the formulation of WP7 to get into the decision-agenda can only be attributed to the following two aspects:

- 1) The prominence of the pressures from external forces (e.g. PAIGs) and their enticing donations in ICT equipment and the likes to the DoE for schools and or to schools directly. It is further believed that the support, amplification and priming of the need to introduce technology in education also came from the media, presenting it as social reality that had to be dealt with through regulations, as the only way (Cukier et al., 2004);
- 2) The DoE was enticed by the donations which were perceived as a golden opportunity to introduce such an attractive and acclaimed programme at no cost to the state, despite its own expressed commitments to make use of the Medium Term Expenditure Framework (MTEF) as the credible source for "...providing sustainable resources for the implementation of e-Education" (DoE, 2004: 35).

In concluding the discussion on this finding, it has emerged that the genesis of any public policy formulation should first and foremost be the identification of the social policy problem for which such formulation is to provide solutions to, and without which no solution will be within reach. Failing to acknowledge this core aspect due to societal pressures or assuming that the issue is already widely recognized, thus negating the need for its identification and articulation, can result in the development of a conciliatory policy that lacks any genuine intention for effective implementation.

In the case of WP7, while there is no doubt about the contributions of ICT to resolving many of educational challenges. The fact that no social problem justifying its formulation was identified and problematised, resulted in its ill-design and predisposition to its implementation failure, at least in terms of not achieving its own set goal.

(1) Lack of rules in the selection of policy actors led to the excessive influence of one group of actors over others.

White paper seven (WP7)'s simplistic approach in the selection of policy actors suggests a lack of seriousness regarding its implementation. It further points to how the socioeconomic and political context of its time of formulation overshadowed key policy formulation fundamentals. The absence of any protocol of policy actors' selection to guide the selection and potentially mitigate the risk of leaving out key actors supports the conclusion arising from this finding that WP7 was simplistic in its approach to the selection of policy formulation actors. It is disturbing to have established that WP7 policy actors, particularly the external ones, who were to positively benefit from WP7's formulation and its implementation, were identified on the basis of their donations in ICT equipment and software to the DoE and schools.

The literature review of this study contends that the correct identification and selection of policy actors is an imperative policy formulation task which should be informed by nothing else other than what the policy seeks to achieve, as encapsulated in the policy problem. Any attempt to do the opposite—such as in the case of WP7 where external policy formulation actors were selected based on their contributions in the form of ICT devices and software to the DoE and schools—can only lead to the omission of other key actors, which may lead to a one-sided policy influence. It may further lead to an ill-articulation of the *hypothesis of causality* (HC) and difficulties in the identification and application of the *intervention hypothesis* (IH), thereby predisposing the policy to failure.

The dominance of the positively affected interest groups (donors of ICT related devices and software) who later on positioned themselves and their proxies as service providers became apparent in the data. This issue is at the heart of some of the ideological contradictions and formulation flaws that this study has revealed. They include for example, the posture of policy discourse, reflected by the praxis that completely ignores or contrasts the aim or contentions of the policy texts, i.e., the praxis that equates the provision of ICT devices to schools to the attainment of WP7 goals and vision. This renders null and void WP7's vision (transformation of learning and teaching through ICT).

Furthermore, any uncertainty in the identification of policy actors, such as the target groups (TGs) and the interest groups that are likely to influence them in maintaining the status quo can only signal - already at this stage of formulation - policy failure. While it was positive to realise that there was a public comments step leading to the final and published WP7, the extent of the readjustments made following that process raised a lot of questions. The latter include questions related to the kind of expertise held by WP7's PAA in the field of public policymaking. For instance, it appears that the PAA were not certain on the role of the teachers in the whole setup. This was evidenced by some tergiversations picked up between the draft WP7 (DWP7) (green paper) and final published copy (WP7). Though not explicitly mentioned, it is clear that in the former (DWP7), teachers were envisioned as, both, Policy beneficiaries (PBs) and Target groups (TGs). The fact that the policy goal stipulates that "...Every South African manager, teacher and learner in the general and further education and training bands will be ICT capable...by 2013" [DWP7: p17, para: 2.22], prove enough that teachers, learners even managers were envisioned as PBs.

On other hand, teachers and managers were envisioned as TGs whose change of behaviour in favour of ICT integration was critically needed, thus WP7 (even its draft copy (DWP7)) makes

incentives provision for the cause [WP7: p26, para: 5.5; Section E2, DWP7: p26, para: 5.5]. However, while the draft and final versions keep teachers and managers as TGs, the final version retreats from the policy's stance regarding teachers as PBs [WP: p17, para: 2.23]. This difference represents a significant adjustment between the two versions of the SA e-Education policy. The study could not determine whether this change resulted from public input or was an internal readjustment due to uncertainty from the PAA. Either way, the re-adjustment should be applauded.

The biggest concern lies with the observed ill-articulation of the HC which has a direct link to both the identification and application of the IH as alluded to earlier on. The implication of this kind of flaw in a PPM cannot be overemphasised but it is safe to argue that this is a major contributor to any public policy failure to reach its set objectives and goal. To make matter worse, while the [to be] positively affected interest groups (PAIGs) - supporters of the policy beneficiaries (PBs) - were integral to the formulation process, the [to be] negatively affected interest groups (NAIGs) - supporters of TGs, particularly by enticing them to resist IH - were completely left out or simply ignored. The only outcome of a formulation flaw of this nature can either be the complete absence of IH or the presence of an ill-crafted and misaligned one that is unable to attain its ultimate objectives of ensuring change of behaviour from the targeted TGs.

The other possible outcome of an ill-crafted IH, in addition to the two, is the one where such ill-crafted IH succeeds to deliver the unchanged behaviour as intentionally planned. Such an outcome can only be imagined in the context of a symbolic policy. An intentionally crafted IH has double-sided sword effects as it not only succeeds to facilitate the change of behaviour of the TGs but also it succeeds in nullifying or neutralising the impact of the NAIGs on the TGs in assisting them to keep their status quo in their (NAIGs) favour. The mere fact that WP7 left out the NAIGs in the formulation process is a grave omission which weakens any IH.

Furthermore, the absence of inclusivity among policy actors creates an opportunity for unspoken opposition to the policy, which becomes especially pronounced during the implementation phase and poses a potential risk, such as policy's inability to reach its set objectives and goal (Knoepfel et al., 2011).

It is important to note though, that reference to the NAIGs being left out does not suggest that WP7 failed to identify the NAIGs. It suggests instead that this group of key policy actors, though identified, was left out of the WP7 formulation process while their counterpart, the PAIGs participated actively. Also left out from the formulation process were the policy beneficiaries which

simply means their real needs were assumed. This could be associated to the previous finding on the policy's lack of clarity on the policy problem.

Regarding the composition of the identified target group (TGs) cluster, the policy (WP7) exhibited a lack of specific information regarding key stakeholders who were meant to be included in the TGs. For instance, it remains unclear whether the mention of managers in WP7 [WP7: p26, para: 5.5] - when discussing incentives for the TGs - encompasses other equally significant TGs members such as curriculum advisors, school principals, and administrators. This lack of detail can have adverse effects or lead to misinterpretation, potentially derailing implementation efforts and resulting in policy failure. Moreover, the absence of specific details may also contribute to the development of poorly formulated intervention hypotheses (IH) and inaccurate cost analyses. The latter circumstance can significantly impact the implementation of incentive package(s) that play a crucial role in driving the desired change of behavior among the TGs. Without these incentives, it becomes difficult to envision the achievement of the policy objectives and goals.

Above all, the researcher's contention on this matter is that all these identified flaws linked to this finding could have been avoided if the process of WP7 formulation followed the conventional process of public policymaking (PPM), which has built-in hints on how to go about with the process. The researcher holds the view that WP7's lack of a formal context of influence (CI) left a vacuum in terms of identifying the social/collective problem from which a consistent (process, text, and discourse perspectives) motive of WP7 formulation would have emerged. This, once again, alongside the lack of sustainable funding sources, suggests that WP7 was a symbolic policy that had no intention of reaching its set objectives and goal or that could only be accidental.

(2) Policymakers' (WP7) reliance on donations and their sustainability for the attainment of the policy objectives and goal.

The findings of this study demonstrated that the demise of WP7 was sealed-up right there at the point of its formulation. The realisation that WP7 failed to clearly identify its own policy problem, yet there is evidence that its formulation was prompted by ICT equipment donations which became its lifelong support, is an indication of its designed demise that did not have to wait for any affirmation. Not allocating sustainable public funding and adequate resources to a policy that was presented as being linked to the post-apartheid agenda of equity and redress is on one side damning, while on other indicative of how public policies can be designed to say one thing, yet meaning another. For instance, one of the participants, referred to as INTVEE8, deplored the fact that WP7 implementation was solely dependent on that donations in ICT equipment and software will be sustained for the entire during of WP7 implementation and they were sufficient to help the

policy achieve its set objectives and goal [see INTVEE8: Lines 193-197]. One of the three factors that determine the success of any policy implementation is the availability and allocation of funding and resources that are commensurate to the pursued objectives and goal (Rivzi & Lingard, 2009; Knoepfel et al., 2011). Donations, even when they are referred to as corporate social investment (CSI) cannot substitute government policy funding and resources, given the unpredictability and dependability of such CSI on other factors and imperatives beyond government control. Depending on donations or CSI can be construed as a free ticket for lack of accountability and a brilliant justification for officials' failure to attend to their assigned tasks. The dependency of a departmental policy on CSI can only mean lack of seriousness with regards to that specific policy and this can be easily detected by those entrusted with its implementation.

The confusion or contradiction that this study has picked up on the source of WP7 funding, inclusive of the state/DoE as the main funder, seems to be a deliberate and a malicious attempt to show the state's commitment to the project (DoE, 2004: 35-36, para: 6.5 & 6.9). Yet no evidence on the availability of such state funding could be established. The fact that such a commitment is quickly nullified by another paragraph (DoE, 2004: 37, para: 6.11) of the policy (WP7) which itemises different sources of funding while deliberately leaving out any state funding is quite telling and reflective of the real intent. It is unfortunate that the conclusion arising from the fact that WP7 was never allocated reliable state funding - in line with the national policy position on the matter - can only be that of policy symbolism.

The literature reviewed for this study is adamant that the absence of public funding allocated to a public policy is a clear demonstration of policy symbolism as such absence is indicative of a disconnect between the textual policy goal and the practical reality of its attainment (Rivzi & Lingard, 2009).

Another important dimension related to the influx of ICT devices donations to the DoE and schools - prior, during and slightly after the publication of WP7 - is what the researcher refers to as, the two worlds apart united in what appeared to be the common vision. There was a perception that the PAIGs (donors) and the PAA (principal actors at the helm of WP7 formulation) enjoyed a firm collaboration whose central point of common interest was the contribution to the country's redress agenda through ICT integration as envisioned by WP7. Tacitly, the two partners pursued different agenda. For the PAIGs, the introduction of ICT in education - prompted by their donations - was a concerted effort to bind the state through its own regulation to a predicted massive procurement of ICT devices which would have boosted their businesses. This goal was achievable with a binding regulation dictating ICT integration in education. The donations were viewed in the context of salesman's speech. On the other hand, the PAA thought of dribbling the

PAIGs to fund and resource a globally accredited and endorsed project that was important but not prioritised, therefore not state funded.

While the legal basis of WP7 (non-binding/ government intents) may suggest the failure of PAIGs to attain its tacit objectives, such failure is not absolute. The fact that the integration of ICT in education has been unfortunately equated to ICT devices provisions, which PAIGs pursued, may suggest some level of success. On the other hand, the state as well failed to attract and ensure permanency of ICT equipment and software donations to sustain its delusionary ICT in education messaging. This is not, however, an absolute failure as from the onset the genuine concern of the state was the creation of a perception that ICT in education formed an integral part of the transformation agenda. The fact that such discourse, wrongly or otherwise, has been put on the agenda of the general public domain - those that symbolic policies have in sight of - can be considered as a success on the part of the state. The biggest losers are the learners whose the promise of a transformed education system through ICT was key for their personal growth and their meaningful contribution to the community as textually pursued by WP7.

6.2.1.2 Policy (White Paper Seven (WP7) as Text

While it is a typical example of a symbolic policy in view of all the three factors that determine such status, the text perspective of White Paper Seven (WP7) represent an embodiment of a grandstanding policy. This is view of its many unrealistic assumptions and the gap that exists between WP7 as *texts* and its *praxis* is exemplified by its everyday *discourse*. The following sections discuss in length the study's findings in relation to WP7 as text.

(1) Textually, WP7 lacks resources and a strategy for the realisation of its vision.

One of the objectives of the study was to identify and describe the socioeconomic and political factors which led to the formulation of WP7 and above all establish their contributions thereof to policy implementation challenges. When WP7 was assessed from a text perspective it was found that "WP7 was thought of [by policymakers] as one of the critical tools for the realisation of equitable, just and equal educational opportunities for all South Africans".

From a *textual* perspective, WP7 indeed embodies the socioeconomic and political contexts of the period of its formulation. Data from, both, WP7 as a *text* and insights shared by participants have described the kind of socioeconomic and political context under which WP7 was formulated. This finding confirms the assertion that the formulation of public policies cannot be divorced from the context of their formulation, be it social, economic, political or otherwise. Policies - according to

the literature - are grounded and deeply influenced by such contexts, to the extent of affecting their implementation (Rivzi & Lingard, 2009; Osman, 2002).

While it seems logical - given the proven contribution of ICT in the fight against poverty and other social ills - that WP7 formulators position WP7 as one of the critical tools in the country's redress agenda, this however, appears to be disingenuous given the lack of key accompanying factors for such a cause. The latter, however, contradicts its own existential essence which therefore points to an open indication of its symbolic nature. This study revealed that there were serious shortcomings in support of WP7's implementation and to lack of lucidity of its goals. For example, reliable and adequate resources were not made available. Furthermore, the selection of its formulation actors was neither rational nor inclusive of all key public policy formulation actors.

In fact, the literature cautions us on the fact that policy formulation stages cannot be fully completed - to the extent of assuring some level of implementation success - if critical assessments of the two parts comprising this stage are lacking or are defective (Knoepfel et al., 2011). Through the PAP component, policymakers not only deal or ascertain themselves of "the legal basis for the objectives" of the policy in making but also the "intervention instruments and operational arrangement of the public action" which constitute the three functions of the PAP (Knoepfel et al., 2011: 151). The last two functions (intervention instruments and operational arrangement) relate to:

- 1) The identification of both the target groups (TGs) and the hypothesis of causality (HC), as well as the crafting of the intervention hypothesis (IH) for the change of behaviour of TGs and the identification of the interest groups supporting the TGs, including their possible treats and how to counter such;
- 2) The grasping of other related operational issues, including the identification of the imperative needed resources for the possible successful implementation of the policy.

The fact that the formulation of WP7 failed to adhere to the above key functions of the PAP is indicative of how, from the onset, the policy was doomed to fail. The literature on public policy is adamant that the success of any public policy in making can be predicted right from the time of its formulation. That is through the identification of the operational elements of the PAP, including a meticulous assessment of the likelihood of availability, coupled with a rational process of identifying and crafting the intervention hypothesis.

Similarly, the likelihood of failure is also predictable at this stage of formulation (Knoepfel et al., *ibid.*). The existence of policies referred as “symbolic” (Rivzi & Lingard, 2009) is a case in point. From the time of formulation of such policies, there is no other aim except to address societal discontent or tensions. They do not at all seek to implement what they claim to implement. As a result, they are deprived, not only, of adequate resources, they are void of any material consequences in case of their failure but also deprive purported beneficiaries of any cover for recourse (Rivzi and Lingard, 2009). Knoepfel et al. (2011) maintain that not assigning adequate resources to a public policy is equal to rendering it redundant before even any attempt to implement it has commenced.

The inference that WP7 has built-in attributes of symbolic policies finds expression in Jansen’s assertion that many of the policies developed during the early years of SA’s transitional period could be characterised as “policy political symbolism” yet, they constituted the “overarching framework for education policymaking” (Jansen in Jansen & Sayed, 2001: 6).

Given that no adequate and reliable resources set aside for the successful implementation of WP7, the optimism for accomplishing some of its ambitious targets was unreasonable. For instance, WP7 lists a host of targets that were to be accomplished in the first three years of its existence in the absence of the education department measuring or modelling the magnitude of the tasks ahead. They included, amongst many, the one suggesting that by the end of 2007 “every teacher and manager” would have had “the means to obtain a personal computer for personal use, administration and preparation of lessons” (DoE, 2004: 39). This is incomprehensible against the backdrop of a lack of budget for the cause. It can, however, only amount to a rhetoric that relates to a text that sought to comply with the discourse of “distributive justice”, championed by the new ruling party with view to attending to the welfare of the population, specifically the previously disadvantaged. WP7 was, however, constrained by the difficult economic conditions of the new democratic state and also by curbing the power of the negotiated political settlement (NPS) to which the ruling party was signatory to. The “Clase Bills” (Carrim & Sayed 1991, 1992 in Sayed, 2000: 4) and the “Sunset Clause” (Sayed, 1997 in Sayed, 2000: 4) demonstrate how the ANC’s desire to implement the RDP was restrained/curbed by the national political settlement (NPS). It is the view of this study that through the “Clase Bills”, for instance, the GEAR was already tacitly in full implementation, disguised under the RDP slogans to appease the masses. The study further contends that the symbolic nature of WP7 cannot be attributed to curbing powers of the NPS.

In fact, the data revealed that formulation defects may have resulted from the “vagaries of the political cycle” (Hudson et al., 2011.). The fact that there have been various ministers heading the

DoE, both, during the period of WP7 formulation and its implementation phases, who have all failed to adequately provide resources for implementation, confirms the vagaries of the political cycle. This contention further finds expression on the fact that no policy conference of the ruling party has unambiguously made a resolution to support the implementation of WP7. Yet, such a policy directive from the ruling party would have played a key role in the provision of funding and needed resources. Given the prevalence of the discourse on ICT integration, including during the time of WP7 formulation, the question is why WP7 did not feature in the agenda-setting of the ruling party? Perhaps the answer lies on the fact that ICT in education still does not feature amongst the priorities of the ruling party, therefore of the government of the day.

The substantive and institutional elements of WP7's Political Administrative Programmes (PAP) not aligned to the minimum standards of an implementable policy

The literature on policy formulation is quite clear that policy implementation success is predicted on a host of factors, including amongst others, the availability and commensurability of resources at its disposal. The literature further insists that this is conditioned on the extent to which these factors (i.e., resources) find expression in the type of legal framework upon which the policy is based (Rivzi & Lingard, 2009; Knoepfel et al., 2011). This directly speaks to the context of such policy formulation which has a direct bearing on the policy content. If these imperatives are not sealed into the policy during its formulation stage, the implementation stage can only helplessly witness the demise or inability of the policy to attain its set objectives. Such failure will not be a result of secondary implementation challenges that might be encountered during implementation attempts - as it often appears - but it will, instead, be fundamentally orchestrated by the policy itself, following flaws during its formulation stage.

WP7's inability, during its formulation stage, to adhere to the minimum standards of predisposed successful implementable policies - in terms of the substantive and institutional elements of the PAP - was a precursor to its failure to reach its textual objectives and goal. The absence of *concrete, measurable and quantifiable* objectives paved way for indecision thereby undermining processes of monitoring and evaluation. Once again, it appears that WP7 had built-in elements which obstructed any objective and goal-oriented implementation. Central to this policy's built-in's inabilities, is the legal basis of WP7 that remained a "government intention", therefore lacking any material consequences in case of non-implementation. For instance, WP7 commitment without capacity means non-attainment of "every teacher, manager and administrator in General and Further Education and Training must have the knowledge, skills and support they need to integrate ICT in teaching and learning" [WP7: p25, para: 1st]. This not only demonstrates some level or abstractness but also false assurance in the absence of required resources to do. This is

evidenced by a complete lack of any funded implementation plan that would have provided details and timebound goals of achieving the milestone. Regardless of the existence of the “planning cycle” (Department of Education, 2004: 38) which gives a high level timebound of the implementation phase, there is no clarity on the detailed implementation plan by the policy, nor by any other subsequent documents providing such needed clarity. In the light, however, of no clear commitment to the funding of the policy, one understands why there is no detailed implementation plan and why the policy (WP7) is vague with regard its monitoring and evaluation as it notes that “...regular reviews and periodic evaluations will be conducted to inform the implementation process” (ibid.).

It is the contention of this study that the reported failure of WP7 to reach its own set objectives and goal can only be a logical conclusion of the ill-design of its Substantive and Institutional elements of the Political Administrative Programmes (PAP). The causes of WP7 failure which many value-driven studies have unearthed are, in the view of this study, symptomatic of the fundamental formulation flaws which resulted from the influence of the context of its formulation. For example, the fiscal context of the post-apartheid state may have influenced the direction to solely depend on social corporate investment and other donations for the implementation of WP7. Yet, the fact that the policy failed to clearly identify the problem for which it was formulated is a demonstration of another context of formulation which pushed for its formulation, suggesting a formulation based on external pressures but not identified and articulated as a social/educational problem that required policy formulation.

6.2.1.3 Policy as a Discourse

It is not unusual or peculiar to find the discourse(s) of the past governing the present through policies, regulations or legislation that were formulated in the context of the past. The heated debate on the United State of America’s (USA) second amendment is a good example of how the past continues to govern the present. In South Africa there are similar debates. They include the ongoing land ownership question, sealed in the Constitution of 1996 which was of course informed by the political context of the time of its formulation.

The problem with WP7 is that it is not the primary policy which governs education in SA. It, instead finds expression or derives its existence from the curriculum, which outlines main directions on national education. It is in this context that WP7 found expression from the curriculum of the time of its formulation, curriculum 2005 (C2005) which was grounded on the Outcome Based Education (OBE). Further to deriving its existence from C2005, like any other policy, WP7 was also influenced by other discourses of the time of its formulation, such as the

discourse on HIV/AIDS. C2005 having been replaced some years ago renders obsolete any other policies that derived their existence from it, hence the need for those policies to be consequential by adjusting to the new reality. The following section discusses the two the findings related to WP7 as discourse.

WP7 remained entrenched in the rhetoric of the obsolete Curriculum 2005.

WP7's current discordance with the curriculum it is purported to support renders it obsolete, to the extent that it cannot be referred to. In other words, the fact that WP7 found expression and aligned itself to curriculum 2005 (C2005) which itself is anchored by OBE principles, rendered the policy redundant. On this basis alone, besides other formulation flaws revealed by this study, the review and reformulation of WP7 is warranted.

WP7's continued reference to the defunct OBE, which the current National Curriculum Statement (NCS) does not in any way, is concerning as it makes WP7 susceptible to rejection and unutilised. This feeds into one of the contentions of this study that WP7's real motive of formulation has not been what its textual format claims to be. Instead, its existence was a ticking of the box exercise which had to conform or toe the line with the discourse of the time and pressing calls for the integration of ICT in education. It is for this reason that the issue of its revision to remain aligned with the curriculum of the day - from which it draws its mandate - was never an issue to those entrusted with the task.

One of the three key considerations in the process of policy formulation, particularly the context of text production (CTP), is that policymakers ought to ensure due diligence- if the policy is to be successful - is the legal basis of the policy (Knoepfel, et al., 2011). According to Knoepfel (ibid) - cited many times on this matter - this is the first element of the Political Administrative Programme (PAP) of the actual formulation stage of public policymaking, following the agenda-setting stage. A policy that has no good legal standing cannot stand the test of successful implementation as it will lack legal recourse. The case of WP7 is worsened by the fact that when C2005 was abandoned, WP7 lost its very first line of legal grounding, therefore it became obsolete. This is in addition to its own weak legal standing of being a guidelines document which leaves policy beneficiaries with no legal recourse in case of non-implementation or failure to reach its set objectives and goal. It is for this reason that this study calls for the review and reformulation of WP7, following a number of formulation flaws which the study has revealed.

(1) The influence of HIV/AIDS' discourse on the formulation of WP7 exposed policymakers' inherent contradictions on the role of ICT in Education.

Contradiction between WP7 as *texts*, *process* and *discourse* has been quite remarkable as noted in the findings of this study. The finding on HIV/AIDS *discourse* is no exception as it exposes a fundamental ideological contradiction amongst WP7 formulation actors on the role of ICT in education. The HIV/AIDS *discourse* of the time of WP7 formulation served as an indicator through which such contradictions are revealed. While some WP7 formulation actors believed that the introduction of ICT in education was the panacea to the envisaged shortage of teachers, predicted to succumb to the HIV/AIDS pandemic, others saw in it (ICT in education) as an excellent tool for the transformation of teaching and learning.

These somewhat juxtaposed ideological beliefs, amongst WP7 formulators, on the role of ICT in education are believed to have also contributed to the policy's failure to attain its set goal. The manifestation of these differing views could be felt in the palpable contradictions between WP7 as *texts* and WP7 as a *discourse*. The observed upper hand of the *discourse* perspective, however, on the *text* perspective meant WP7's vision of transforming learning and teaching through ICT remained purely academic and textual as it has no resonance whatsoever in the daily practice of uncoordinated and isolated pockets of implementation of WP7. Given the alignment between WP7's vision and goal, this further meant that the attainment of the policy goal could not be envisaged under the circumstances whereby policy *text* was in contradiction with the policy *discourse* and *practice*. The repercussion of the dominance of the *discourse* perspective influenced by the HIV/AIDS context of formulation could still be felt today, almost twenty years since the publication of WP7. This was exposed by the advent of COVID-19 when the prominence of ICT being used as extension of the traditional mode of teaching and learning was required.

This study holds the view that while it is true, as observed by Dlamini and Coleman (2017) and others, such as Behar and Mishra (2015), that the integration of ICT in education in Africa is nothing else than a mere delivery of hardware to schools, in the case of South Africa, this finds its origin from WP7 itself. The fact that its discourse is more prominent and contradicts its textual version gives credence to the study's viewpoint and this is further evidenced by the lack of funding for the integration of ICT in education to ensure transformation of teaching and learning. The lack of funding and sustainable reliable support to WP7 text meant the policy was susceptible to various interpretations on the principle of ICT integration. This encompassed the understanding of the common discourse surrounding e-Education, which viewed it as an extension of the traditional teaching and learning approach that prioritizes the teacher's central role in the learning process. This is a discourse that also found expression amongst some of the formulators of WP7.

Above all, this is an indication of the power of the tacit policy position that might have taken a low profile or a compromised position during the text production but was resurrected during the implementation phase. Such a flip-flop can only constitute a major contradiction with the official policy text, which ultimately paves way for the non-attainment of the textual policy goal and objectives against which the policy is to be assessed through value driven assessments as it has been the case with WP7.

This study contends that WP7 was purposefully designed to appease selective discourses in a politically charged milieu. The fact that the textual perspective of WP7 on the role of ICT in education is in line with what the literature posits on the matter suggests, however, that there was an upper hand—at the level of arguments—of those who perceived the role of ICT in education as a transformative tool rather the extension of the role of teacher. The context of the time of WP7 formulation, particularly the HIV/AIDS discourse and its influence on WP7 formulation, remained omnipresent and resonated with the tacit ICT integration drive. A drive that did not envision the textual vision of the policy but was more interested in channeling the donated computers to the previously disadvantaged schools, under the disguise of the equity, justice and redress agenda of the time. Based on this perspective, one may argue that WP7 succeeded in its tacit mission which unfortunately does not feature in the policy assessment as ordinarily the policy evaluation or assessment is based on the textual vision, goal, and objectives.

6.2.2 Theme 2: White Paper 7 (WP7) and the Ideal Speech (Validity Claims)

White paper seven's (WP7) findings related to the ideal speech/validity claims fact that there were concerted efforts from policymakers to ensure that the policy discourse was clearly understood by practitioners and the public at large. Knowingly or otherwise, such an attempt exemplified validity claims which are intrinsic to any communication or discourse, regardless of the mode of such discourse (Cukier et al., 2009). As the findings of this study reveal, the efforts to comply with the ideal speech ran short because, in general, this study found that WP7 failed the validity tests. The failure is not however peculiar in the context of the findings grouped into theme one (section 6.2.1 and all its sub-sections) of this study which have revealed a number of WP7 formulation flaws. Following the analysis of data, including the account of participants, this study believes that the flaws resulted from the symbolic nature of WP7, which was itself influenced by the socioeconomic and political context of WP7 formulation.

In view of the revealed formulation flaws, any successful validity tests would have been illogical. Given the fact that symbolic policies have minimal implementation intent, regardless of their claims, it is logical to assume that their credence is gained through their enhanced

communicability or ideal speech. This is because symbolic policies do not, on their own and naturally, expose embedded agendas. The conclusion of a symbolic status of a public policy is often detected only upon a thorough analysis of the policy by means of searching for embedded and hidden characteristics of symbolic policies. Congnissant of the true nature of such policies, key policymakers capitalise on the ability of the texts to facilitate the development of the ideal speech through which the goal of appeasing the masses can be achieved.

The contention of this study is that any malevolent efforts to comply with the validity claims tests for the purpose of ensuring malicious ideal speech are often self-nullifying and easily detectable by the validity claims tests. The conclusion of failing all four validity claims tests is in sync with the symbolic nature of WP7, establish by this study. These test failures, however, should not distract one from the fact that WP7 succeeded in appeasing the masses who, to some extent, came to believe that the presence of ICT devices in a school or in the hand of the learners reflects the achievement of WP7's goal.

6.3 SUMMARY OF CHAPTER SIX

In this chapter, the study examined and discussed the multiple WP7 formulation flaws, revealed by Chapter Five. The discussion has highlighted and demonstrated how the contexts and conditions within which a policy is formulated have influence on the policy content and its implementation thereof. This in line with the existing literature, which suggests that the context of policy formulation influences the policy's content and subsequent implementation across all three dimensions: policy as a process, policy texts, and policy discourse (Rivzi & Linguard, 2009; Knoepfel et al., 2011).

The implications of the identified flaws can be summarised as follows:

- (a) A formulation *process* that disregarded the traditional democratic public policy formulation, which resulted not only in the lack of clarity regarding the problem for which the policy (WP7) was formulated but also deficiencies in selecting policy actors, leading to an imbalance of influence among equally significant stakeholders. Additionally, the non-adherence to conventional policy formulation processes contributed to policymakers excessively relying on donations from external forces who stood to benefit from the policy formulation and its successful implementation;

- (b) The embodiment of the characteristics of symbolic policies, as evidenced by its failure to prioritise sustainable resources—including fiscal and human resources—and also the absence of a clear strategy for the realisation of its vision, objectives and goal;
- (c) The fact that WP7 remained firmly entrenched in the rhetoric of the outdated Curriculum 2005 (C2005) and the discourse surrounding HIV/AIDS highlights its own obsolescence. In essence, WP7 no longer aligned with the primary curriculum it was intended to support, thereby undermining its relevance. Moreover, its association with the discourse of HIV/AIDS exposed fundamental contradictions among policymakers regarding the role of ICT in education. These contradictions manifest in the policy's implementation, which leans more towards viewing ICT as an extension of traditional teaching and learning methods, rather than embracing the policy vision that advocates for a learner-centered approach, advocated by the textual perspective of WP7.

Above all, the policy lacked credible legal standing, in addition to serious challenges with its operational arrangements, including non-allocation of public funding and adequate resources. All this led to the conclusion that WP7 was a symbolic policy which had no intention to implement what its textual perspective claims. Instead, it is its tacit discourse, including the discourse of ICT device provisioning, which took precedence and prominently satisfied the PAIGs and proxies who champion such discourse.

White Paper 7's (WP7) formulation flaws revealed in this study constitute a significant and fundamental factor contributing to its failure in achieving the intended objectives and goals. These findings complement the conclusions of previous value-driven studies on the causes of WP7's failure. It is, therefore, an imperative to address these flaws, as they pose a substantial obstacle to WP7's ability to fulfil its stated objectives and goals. Simply extending the lifespan of WP7 to align with Vision 2030 of the National Development Plan (NDP) will not yield different results if these flaws remain unaddressed. Given the nearly twenty-year implementation of WP7 (from 2004 to 2022), this study argues for the transformation of WP7's symbolic nature, taking into account the contemporary challenges and changes that can no longer be ignored. It is in this context that, the study proposes guidelines for the review and reformulation of WP7, which are presented in the subsequent chapter of this research report (thesis).

CHAPTER 7: CONCLUSIONS

7.1 INTRODUCTION

The aim of this study was to develop guidelines for the review and reformulation (GRR) of the South African e-Education policy, referred to as White Paper Seven (WP7). The study was motivated by well-known challenges associated with the policy's implementation, which has been widely regarded as a failure by numerous value-driven studies. These studies primarily attribute the failure to various implementation factors, with exception to the policy itself which has not been examined. This is despite the fact that the context of a policy formulation can significantly impact both its content and implementation. To bridge this gap and ensure a thorough understanding of the causes of WP7's failure to achieve its objectives and goals, this study critically examined WP7's context of formulation, including the prevailing socioeconomic and political conditions at the time. By delving into these aspects, the study sought to provide a comprehensive understanding of the policy's shortcomings which were eventually revealed by the findings of the study. The development of guidelines for review and reformulation of WP7, in view of its extended lifespan to 2030, is therefore informed by the findings of the study and the discussions that ensued thereafter.

The following sections of this chapter present the guidelines for the review and reformulation (GRR) of WP7. The GRR is underpinned by the Theory of Constraints (TOC), which is derived from the conceptual framework (CF) of the study.

7.2 CONTRIBUTION: PROPOSED GUIDELINES FOR THE REVIEW OF WP7

The GRR constitutes the substantive contribution of this doctoral study in response to the revealed WP7 formulation flaws. Further to the GRR, but as an integrative part to it, is a web-based application which the study proposes with a view to operationalising the newly reformulated WP7. The GRR embodies the study's formative evaluative approach to WP7 review which is key for its reformulation. While the GRR is specifically developed for the review and reformulation of WP7—following a thorough analysis of the latter (WP7) in all its three perspectives (process, texts, and discourse) - can as well be used in other policy contexts with adjustments to selected questions, probes and leads. This is however, not a suggestion to generalise its use in any attempt to review and reformulate policies.

As a product of formative evaluation, the GRR - as mentioned above - finds expression in the Conceptual Framework (CF) of the study, particularly in its Context of Practice (CP) which feeds

back to the Context of Influence (CI) for readjustments or sought improvements. This is what informs the concern of the GRR that it is not only about the assessment and identification of WP7 formulation flaws but more importantly how new solutions (following the flaws) can be designed and feedback to the CI with a view to reformulating the policy, to ensure the attainment of its set objectives and goal(s).

The fact that the proposed enhancements loop back to the CI creates the figurative cyclic perception of policymaking, hence its formative evaluation nature. This suggests looking at 'what worked', 'for who', in 'what context', and *what didn't work* and *why?* When reasonable empirical findings highlight 'what didn't work' and 'why', then new or alternative solutions can be suggested, and they ought to be input back to the CI. This is the thinking process which characterises the Theory of Constraints (TOC) that grounds the GRR. In other words, the GRR is modelled from this thinking process which is inclusive of:

- 1) *What has to change?* (embodies both the CRT & EC/ CRD constructs);
- 2) *What should it change to?* (quest for future solution through FRT construct), and;
- 3) *How to change?* (How to implement envisaged solutions, PRT & TT constructs).

Figure 7.1 below sketches the GRR and sets out the layout of the chapter, in line with the above TOC.

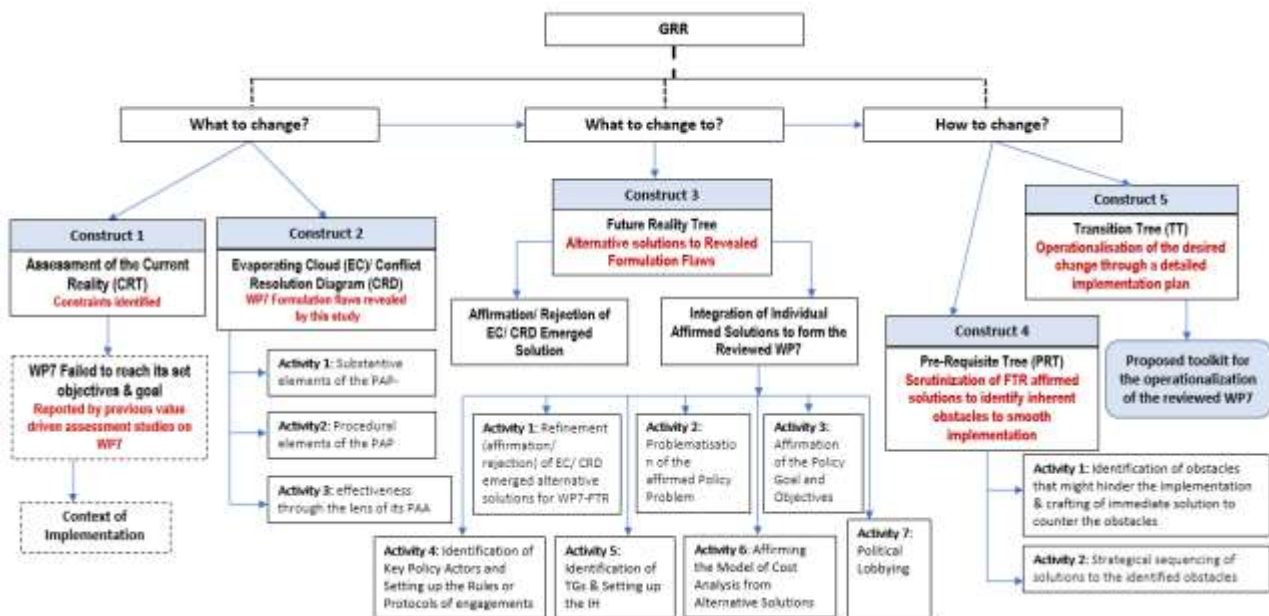


Figure 7.1: Graphical representation of the GRR

7.2.1 What has to change?

Through this thinking process (what to change) of the TOC, the GRR provide steps and guidance on how reviewers of WP7 can proceed with the assessment in order to identify any aspects of the

policy that may be a hindrance to a smooth implementation and eventually determine or craft adequate solution(s) to counter the hindrance. The identification of hindrances or bottlenecks and the determination of appropriate solutions, are represented respectively by two constructs, including 'the current reality' (CR) and the 'evaporating cloud/ conflict resolutions diagram (EC/CRD)'. The following sections provide detailed guidelines on 'What to Change'.

7.2.1.1 Current Reality of White Paper Seven (WP7)

This study is premised on the current reality of WP7, which is mainly informed by the results of various value-driven studies. For example, the snapshot survey of ICT integration in South Africa by Padayachee (2017) is amongst the latest studies which provide reasons for WP7 failure to reach its set objectives and goal by 2013. Chief among them include the low uptake of technology amongst teachers and school administrators; as well as the reluctance of teachers to integrate ICT into their teaching and learning. In addition to the value-driven studies, there is also a study by Mooketsi and Chigona (2014) which found that WP7's failure can also be attributed to its lack of leeway for localisation and contextualisation. The overall failure of WP7 to attain its set objectives and goal represents the current known reality of WP7 failure.

Tables E.2 to E.4 in Appendix E contain the set milestones of WP7 and the envisaged time for their implementation. It is through these milestones that the current reality of WP7, in terms of ascertaining its implementation status, can be conducted.

Key to the development of the GRR was the identification and understanding, from the policy point of view, of the tacit inherent formulation flaws which Sabbaghi and Vaidyanathan (2004: 10) refer to as "...conflict underpinning the undesirable effects (UDEs). That is, interrogating WP7 itself to identify and better understand - from its own perspective - the underlying causes of its failure as reported by various studies. It is through such an understanding that new "breakthrough solutions" (ibid.), which will justify the proposed review and reformulation of the policy (WP7), are expected to emerge.

In the context of the TOC thinking process—adopted as the wireframe for the development of the GRR— this study found expression in the second construct of the first thinking process of the TOC, depicted by both Figure 7 and 10. That is, the "Evaporating Cloud/Conflict Resolution Diagram (EC/CRD). The EC/CRD construct is, together with the CRD, an integrative part of the first process of the TOC (What to change). It seeks to understand *why* "what did not work" (established by the first construct "current reality") *did not*. In the context of this study, this meant getting to understand the socioeconomic and political context under which WP7 was formulated

and what influences and impacts it could have had on the formulation process and policy content. This would reveal WP7 formulation flaws which might have contributed to the current reality (failure to reach set objectives and goal).

In light of the above, the GRR of WP7 is proposed to commence with the EC/CRD construct. It is important to mention that the purpose of this study and its guidelines was not the reformulation of WP7. Instead, the study sought to develop guidelines to guide the review and reformulation of WP7. This is following its identified formulation flaws which the study has proven to have predisposed the policy to failure. It is in this regard and in line with the precepts of the literature and the findings of the study that the GRR suggests pointers on how to conduct the assessment of the context of formulation of WP7. That is, independently, in relation to the assessment conducted by the researcher, and using a different framework of analysis (the TOC). Such an assessment should be inclusive of both, an analysis of the substantive and procedural elements of the Political Administrative Programmes (PAP) and the Political Administrative Arrangements (PAA), to ascertain of WP7 effectiveness and efficiency. It is believed that such assessments, do not only help reveal the tacit undesirable effects or causes of the current reality but would also pave the way for the crafting of future solutions, key for the policy (WP7) review and reformulation.

7.2.1.2 Evaporating Cloud/ Conflict Resolution Diagram (CRD)

1) Identification of White Paper Seven (WP7) of Formulation Flaws

This first step of the GRR seeks to establish and understand any WP7 formulation flaws which might have been at the origin of the known current undesirable effects revealed by various value driven studies. In order to undertake this exercise, the guidelines recommend that the following assessments of WP7 be undertaken:

Activity 1: Assess the Substantive elements (SBE) - Political Administrative Programmes (PAP)

Drawing from policymaking literature (Knoepfel et al., 2011), it is proposed that WP7 evaluators ascertain the extent to which the substantive elements (SBE) of the Political Administrative Programmes (PAP) of WP7 were adequate and commensurate to what the policy was aimed at achieving. This is because the SBE constitutes the backbone of any public policy that is serious in its implementation intents. Their absence or symbolic presence is an impetus for policy implementation failure. This is what informs the assertion that successful policy implementation is secured right during the formulation process of such a policy (Rivzi & Linguard, 2009).

To ascertain the presence and extent to which WP7's SBE was adequate and commensurate to its task, the GRR recommends that the following SBE of WP7 PAP be thoroughly assessed prior to any design of future solutions and reformulation of the policy:

- (a) The legal existing framework of WP7 which is key for establishing how the current legal status of WP7 could have contributed to its current reality;
- (b) Identify the policy problem which WP7 sought to provide solutions to and interrogate its clarity and attraction, if any, and further determine its relevance today, and in the next ten or more years;
- (c) Assess the existing policy objectives, goals, and vision, and establish how they are interrelated. Ascertain that the objectives are crafted in a manner that gives comfort and indication that once they (objectives) are attained or realised, that triggers the attainment of the policy goal;
- (d) Ascertain of the realistic nature of the policy objectives and goal;
- (e) In line with the policy objectives and goal, assess the accuracy of the identification of all categories of policy actors necessary for the WP7. This should also include, as well, a thorough assessment of the target groups and their hypothesis of causality and the crafting of the intervention hypothesis are duly assessed to establish their effectiveness and efficiency.

Table E5 (see Appendix E) contains a series of questions which can facilitate the assessment of the substantive elements of the Political Administrative Programmes (PAP).

Activity 2: Assessment the Procedural elements (PCE) - Political Administrative Programmes (PAP)

The success of the substantive elements of the PAP cannot be imagined in the absence of an effective and efficient administration of the policy in making. Procedural elements (PCE) of the PAP deal with the effectiveness and efficiency of administrative activities that were undertaken to ensure the attainment of the policy objectives (Knoepfel et al., 2011). It is very important that WP7 reviewers assess the PCE of WP7 PAP to establish, from the policy perspective, *what needs to change*. This forms part of searching for the causes of the current WP7 reality which the TOC thinking process refers to as the "*evaporating cloud/Conflict Resolution Diagram*" (EC/CRD).

To conduct an assessment of the PCE of the PAP, the GRR proposes that the following be considered or established:

- (a) Whether the selection of policy actors was informed by set selection criteria for the cause and whether the criteria were informed by what the policy intended to achieve;
- (b) Ascertain the inclusivity of the rules (criteria) and the rationale behind each of them;
- (c) Ensure the existence of the rules of engagement amongst policy actors with a view to mitigate any possible excessive influence of one group of actors over others, etc.;
- (d) Ensure that issues of resources and funding of the policy are thoroughly looked at. This includes, not only, the sustainability and reliability of funding throughout, but also resources including - human resources and structural organisation.

Table E6, in appendix E contains a series of questions which can facilitate the assessment of the procedural elements of the Political Administrative Programmes (PAP).

Activity 3: Assessment WP7 effectiveness (FE) - Political Administrative Arrangement (PAA)

The relationship amongst all policy actors—inclusive of the political structure and the Political Administrative Authorities (PAA)—is a key contributing factor towards the success or failure of any policy (Knoepfel et al., 2011). The assessment of WP7 effectiveness—viewed from the lens of the PAA—is therefore of paramount importance as it has the potential to enlighten the envisaged review and reformation of the policy. It is in this context that the GRR recommends that at this stage of establishing the causes of WP7's current reality (from the policy point of view), policymakers consider acquainting themselves with the kind relations which existed between various policy actors during formulation and implementation. Key to these relationships is not only the relationship between the political office and administrators but also the target groups (TGs) and the main implementing agents (provincial education departments, etc.). The stronger and genuine such relationships exist, and the healthier they are, the higher the chances of policy effectiveness and implementation.

WP7 reviewers are therefore urged to consider the following—from the lens of the Political Administrative Arrangement (PAA) of WP7—during the process of assessing the effectiveness of formulation:

- (a) Have a good sense of the kind of relationships which existed between and amongst various policy actors, at individual and group levels;
- (b) Ascertain the existence or lack thereof of rules of engagement which guarantee healthy and goal-oriented relationships between and amongst policy actors;
- (c) Explore all the contours surrounding the target groups' identification, the kind of relationships that existed between them and implementing agents and the incentives for their change of behaviour vis-à-vis the organisation and the political administrative authorities, etc.

Table E7 (see Appendix E) contains a series of questions aimed at facilitating the assessment of WP7 effectiveness through the lens of the Political Administrative Arrangement (PAA).

2) Establishing the causes of White Paper Seven (WP7) Formulation Flaws

To understand the *why* of the undesirable effects of WP7, the proposed guidelines recommend that the “*why*” be sought from the answers to the questions pertaining to the *substantial* and *procedural* elements of the PAP and those of the PAA (See Tables’ E5, E6 and E7: appendix E).

Suppose, for instance, that the answer to the question which sought to understand the legal basis that foregrounded the formulation of WP7 is that “WP7 is just a set of guidelines, therefore it has no legal basis in law”.

The “*why*” question will therefore be: “why policymakers saw it fit that WP7 serve as a set of guidelines instead of being for instance a form of legislation?” The answer to this question could be: “Given the dire fiscal conditions of the post-apartheid state, legislation would have meant binding the state to the high cost of integrating ICT in education. Yet, given the economic status of the post-apartheid state, it was not financially feasible, thus the only option left was to provide guidelines for integration”. The following question will then be: “looking at the current condition with insights from past experiences with integrating ICT in education, through a guidelines document, what will be the best legal basis of a reviewed and reformulated e-Education policy?”

The example above points to two things that are becoming clearer. They include (1) knowledge and understanding of the root cause of what did not work, and (2) the design of alternative solution is starting to emerge. To undertake this stage, the guideline proposes

that all questions which sought to understand the effectiveness of WP7, by looking at its context of formulation and implementation, be tabulated. Table 7.1 below provides examples on how, for each root cause, possible alternative solutions emerge. Table 7.1 simulates tables E5, E6 and E7 found in appendix E. These tables can be used to capture not only the debated and consolidated underlining root causes of the undesirable effects of the current situation of WP7 but also the consolidated alternative solutions as a result of the initial answers emanating from various teams.

Table 7.1: Root causes - WP7 formulation UDEs-SBE of the PAP

Root Causes of WP7 UDEs	Leading Questions	Formulation UDEs	Consolidated underlining cause	Possible Consolidated alternative solutions
Substantial Elements and Designing of Alternative Solutions	e.g. Establish the legal basis that undergrounded the formulation of WP7 (Was it a legislation, regulation, guidelines, etc.).	e.g. WP7 provides guidelines. It does not have any legal force in law.	e.g. “Given the dire fiscal conditions of the post-apartheid state, legislation would mean binding the state to the high cost of integrating ICT in education. Yet the state did not have the means to do so, thus the only option was to provide guidelines for integration”.	e.g. A form of legislation or Norms and Standards would be ideal given the experience of the past 10 years of implementation.
Procedural elements and designing alternative solutions	e.g. Identify and list all key WP7 formulation actors by categorising them, i.e., public actors, target groups, etc. Thereafter, identify key actors (public or private) that were left out, if any, yet their absence had the potential to negatively affect the attainment of WP7 set objectives and goal.	e.g. <u>Present actors:</u> A. Public Actors: A1. Internal to DoE: <ul style="list-style-type: none"> • DoE officials (Curriculum Innovation) • PEDs representatives A.2 External to DoE: <ul style="list-style-type: none"> • DoC representatives • Some representatives from the SOEs <u>Absent actors</u> <ul style="list-style-type: none"> • B. Beneficiaries actors • Target groups Negatively affected interest group.	e.g. <ul style="list-style-type: none"> • Lack of rules for policy actor identification and selection; • Excessive influence of positively affected interest groups; • Lack of policy formulation structure for managing policy actors’ power relations. 	e.g. The review and reformulation process should ensure the existence of the establishment of a Management structure led by public actors. The structure should, amongst other put in place rules of engagements which should be inclusive of criteria for the selection of policy actors.
Through the lens of the PAA	e.g. What type of motivations (i.e., incentives) were in place for the target groups’ change of behaviour? If any, establish the extent to	e.g. Despite WP7 stating that “support in the form of incentives will encourage teachers, managers and administrators to integrate technology into their daily activities and areas of	e.g. <ul style="list-style-type: none"> • Lack of rules for policy actors’ identification and selection; • Excessive influence of positively affected interest groups; • Lack of policy formulation structure for the management of policy actors’ power relations; 	e.g. The review and reformulation process should ensure: <ul style="list-style-type: none"> • The existence of a Management structure led by public actors; • Identification of policy

	<p>which the said motivation was attractive enough and capable of triggering target groups' change of behaviour?</p>	<p>responsibility", there was no clarity on the incentives in question. This might have led to teachers' reluctance to implement ICT in education as evidenced by many studies. Furthermore, the identification of all key target group members is also lacking</p>	<ul style="list-style-type: none"> • Lack of cost analysis and corresponding budgets. 	<p>formulation actors should be informed by set criteria, informed by the policy objectives;</p> <ul style="list-style-type: none"> • Conduct the cost analysis and secure funding; • Identify which behaviour needs to change and ensure that there is an incentive package which may be a combination of different types of motivations, i.e., incentives and persuasion modes, or a direct supply of goods combined with regulatory mode.
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The conflict resolution mechanism (evaporating cloud) which is central to this stage would have been used to facilitate ideological contradictions and conflicts in the search for the root causes of the UDEs. It is for that reason that the guidelines assume that each team (whether as a province or small teams within a province) would have to come up with a set of reduced, consolidated answers as exemplified by Table 7.1 above (See last columns) which mimic tables E5 to E7 (Appendix E).

Even though alternative solutions to the undesirable effects inherent in the formulation process, these solutions are still isolated from each other. Therefore, they do not constitute a holistic reviewed policy. The next stage of the GRR - referred to by the TOC thinking process as: “*what to change to*”- assists in designing the future solution or desired future reality.

7.2.2 What to change to

This thinking process is aimed at assisting WP7 reviewers to: (i) refine and cleanse the emerging solutions touted by the ECD/CRD from any other inherent hindrances that may be associated with the solution and (ii) facilitate the integration of individual solutions. This should be in line with the objectives and goal(s) to be pursued and the resources set aside for the implementation. The only construct constituting this thinking process (‘what to change to’) is the ‘Future Reality’. The following section (7.2.2.1) provides guidance on how to design the future reality for the envisaged reviewed and reformulated WP7.

7.2.2.1 Designing WP7 Future Reality

Throughout the previous stage (EC/CRT), solutions to each of the undesirable effects (UDEs) or obstacles that have prevented WP7 from reaching its set objectives and goal emerged. These solutions are however still raw, isolated, and unpackaged. Furthermore, the assessments of the EC/CRD would have revealed: (a) the formulation flaws, (b) the underlining causes of the flaws (See Table 7.1 and its expanded versions encapsulated by Tables E5 to E7: Appendix E) and the alternative solutions which emerged. There is no certainty, however, that the solutions are free of undesirable built-in side effects. They therefore need to be proactively identified and dealt with as a way of preventing the UDEs from becoming new stumbling blocks to the attainment of the set objectives and goal (Gupta & Kerrick, 2014; Sabbaghi & Vaidyanathan, 2004). The Future Reality Tree (FTR) is therefore the platform for the affirmation of the solutions and the identification of any inherent undesired effects. The desired outcomes and outputs are also plotted during FRT.

As part of the practical design of WP7's future reality, the researcher proposes that each solution that emerged - as a result of conducting the evaporating cloud/conflict resolution diagram (EC/CRD) - be subjected to a *refinement test* in order to affirm or reject it. This should be done by keeping the structure that has been followed thus far. That is, subjecting solutions (one by one) which speak to both, *substantive* and *procedural* elements of WP7 PAP and those that speak to the PAA to the refinement test.

1) Affirmation/ Rejection of the EC/CRD Emerged Solutions

To affirm or reject alternative solutions which emerged during the EC/CRD-construct, the GRR proposes that each of the solutions be subjected to a refinement test. The purpose of the test is to identify solutions which are free of built-in UDEs or can be cleansed of such. Figure 7.2 below is the flowchart that may be used for the refinement and affirmation of each individual solution which emerged from the previous stage of the TOC process.

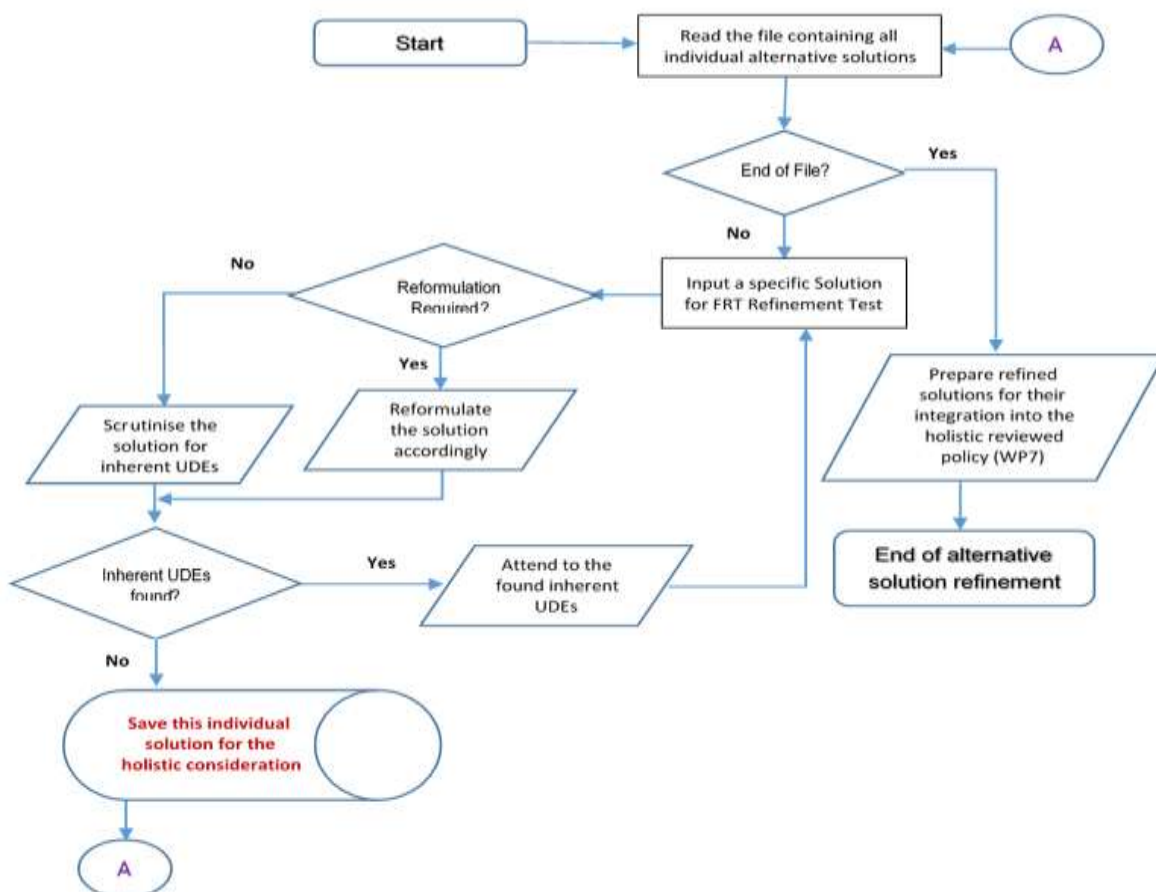


Figure 7.2: Flowchart for the Refinement and Affirmation of Emerging Individual Solutions

2) Integration of Individual solutions

The guidelines for the review and reformulation of WP7 (GRR) advance that, through this section, each refined solution should be assessed, but with a focus on how the individual solution will fit into the holistic solution. That is, how each refined solution integrates and meaningfully contributes to the holistic reviewed and reformulated solution (reviewed WP7). To go about, WP7 reviewers are advised to assess how each individual solution fits into the broader perspective of the reviewed policy, in view of its renewed and reasserted objectives, goal(s) and vision, if necessary. The GRR proposes the following activities which may be conducted from the bottom (lower level of the system) to the top levels of the system (i.e., provinces (PEDs) to national level). At each level, key policy actors/stakeholders should be identified in line with the policy objectives and goal(s), following Knoepfel et al. (2011) triangle of policy actors. This is aimed at assisting each grouping unit (e.g., each PED) participating in the review process to emerge with a version of its proposed reviewed WP7.

Each of the version of the reviewed WP7 that would have emerged from each group (e.g., each PED) will constitute or serve an alternative solution for a newly reviewed WP7. The latter is to be discussed and scrutinised with a view to:

- (a) Getting to the preferred policy option, and;
- (b) Identifying some specificities, if any, that might be specific to individual provinces.

Key determinants of the consolidation process - from the various versions - will be first and foremost the identification and articulation of the [public] policy problem. It is the latter that will assist in securing the attention and attraction of decision-makers. This is imperative for any envisaged success of the reviewed WP7.

The following activities are therefore proposed for the packaging and development of the preferred policy option:

Activity 1: Affirmation of the Policy Problem from proposed alternative solutions

- (a) Assess each of the identified *policy problems* from the alternatives reviewed solutions emanating from each grouping;
- (b) Check and only select the proposed provincial *policy problems* which are aligned to the Sustainable Development Goals (SDG) related to quality education and social inequality. This is to ensure "...coherence between global, regional, national, and sub-national development plans" ("SA Implementation of the 2030 Agenda", 2019: 29). Those deemed to not be aligned, if any, should be scrutinised further with a view

to taking note of any other important points raised besides the lack of the above-mentioned alignment;

- i. Establish whether the proposed provincial (including DBE, if not eliminated by item 2 above) *policy problem* is aligned to National Development Plan (NDP) and DBE overall goals, encapsulated in its policy document referred to as “*Action Plan 2024: towards the realisation of schooling 2030*”. This is to ensure further alignment and coherence between the SGD, NDP and DBE Action plan;
- ii. Once it is established that the assessed provincial *policy problem* is aligned with both, the NDP and DBE overall goals, this particular submission should be considered or retained;

The above paragraphs i and ii should be repeated for each of the proposed policy problems;

Once all *policy problem* submissions are assessed and those that would have passed the test are identified, the crafting of a *policy problem* option may now commence. It will be based, not only on those that passed the test but also on the notes taken (if any) from those that did not pass the test.

This proposed logic is further represented in more detail by Figure 7.2 below which is the flowchart that may be used as a guide to the formulation of the policy problem as explained above.

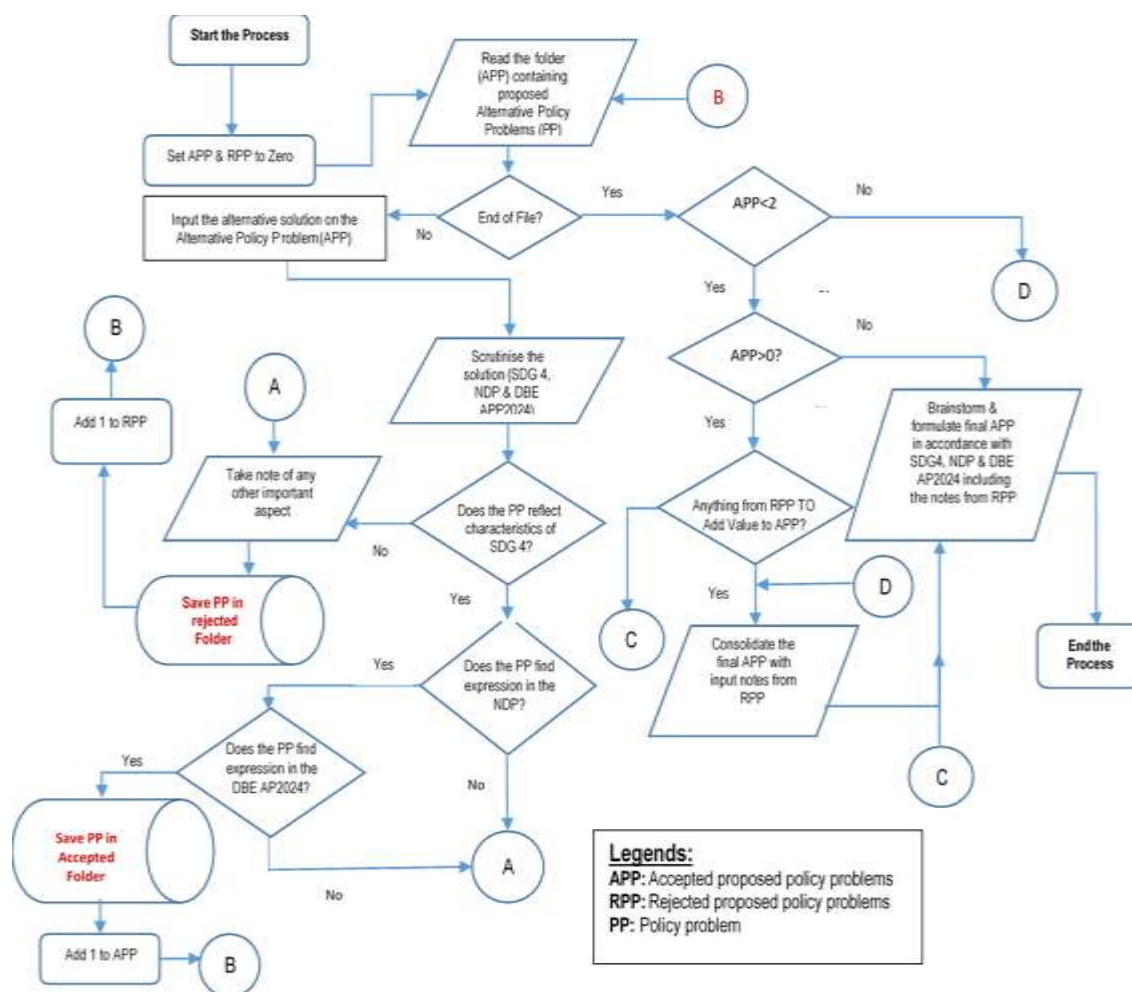


Figure 7.3: Flowchart to guide the affirmation the reviewed WP7 policy problem

Activity 2: Problematisation of the Affirmed Policy Problem

Having completed the activity on the identification of the policy problem, the next step involves the problematisation of the affirmed policy problem. This assists in securing the needed political and decision-makers' support. The GRR proposes that such problematisation be embedded with the following characteristics:

- (a) Demonstrate the imperative nature of the problem, to the extent of not only dramatising the consequences of inaction but also the political weight of the affected actors and how the inaction may push the affected parties to unrest which may result in some of sort of crisis;
- (b) Be innovative and refreshing in the manner in which the problem is presented;

Where possible make use of statistical evidential data to support the problem by demonstrating the negative effects in case of inaction.

Activity 3: Affirmation of the Policy Goal and Objectives

(a) Policy Goal

The GRR proposes the following for the affirmation of a reviewed and reformulated WP7 Goal:

- i. Assess each of the proposed alternative goals for the reviewed and reformulated WP7;
- ii. Establish whether each proposed policy goal is:
 - (i) Compliant to the exiting legal framework;
 - (ii) Aligned to the affirmed policy problem, thereby aligned to the DBE's overall goal;
 - (iii) Realistic and not overly optimistic (the goal is within reach/achievable vis-a-vis the timeframe and resources are commensurate and available);
 - (iv) Measurable and its outcomes and outputs can be discerned;
 - (v) Reflexive of the solution to the policy problem;
 - (vi) Commensurate, if achieved, to the overall type of change sought by the policy vision;

The assessment can be made easier through the following proposed questions (not exhaustive) or flowchart F1 contained in appendix F:

- (i) What legislative and regulative framework is the proposed goal aligned with? Does the goal align with both, the overall provincial and national legal framework?
- (ii) Is the proposed alternative WP7 goal under assessment aligned with the DBE's overall goal? If it is indeed, what DBE goal does the proposed WP7 speak to?
- (iii) Indicate how realistic and achievable the proposed reviewed WP7 goal is?
- (iv) What could be the indication of measurability of the proposed WP7 goal?

- (v) What are the envisaged outcomes and inputs and to what extent they will be discernible once the goal is achieved (what will be the characteristics of testing their achievability)?
- (vi) What are the skills and knowledge that the policy goal envisages for the policy beneficiaries?
- (vii) To what extent are these skills and knowledge valuable to individual beneficiaries and to the community at large?
- (viii) How proportionate is the proposed policy goal in relation to the type of change envisaged?

(b) Policy Objectives

The GRR proposes the following to be considered for the affirmation of the reviewed WP7 objectives:

- i. Consider having relatively few numbers of objectives in order to avoid dispersion, provided that the set objectives have direct link to the policy goal, in such a way that their successful attainment should be a precursor to the attainment of the policy goal;
- ii. Ensure that each proposed objective:
 - (i) Is aligned to both the policy goal and problem in order to ascertain that the policy objective, once achieved, contributes to the overall achievement of the policy goal;
 - (vii) Strive to ensure that there is correspondence between the normative objectives of the overall envisaged solution and the problem the policy seeks to address;
- iii. Ensure that objectives are clearly aimed at ensuring the target groups' change of behaviour, and clearly indicate how their changed behaviour (if accomplished) will contribute to the policy goal.

It is critical to ascertain the availability of required resources, including human resources, for the realisation and practicability of each policy objective.

Activity 4: Identification of Key Policy Actors - Setting up Protocols of engagement

- (a) While the inclusivity in the selection of policy actors is highly recommended, such selection should be informed by the policy problem encapsulated in the set selection protocol;
- (b) Policy actors should be clearly delineated or categorised as follows (following the advice by Knoepfel et al., 2011):
 - i. Public policy actors (forming part of the political administrative authorities (PAA), inclusive of all public actors, whether internal or external to the Basic Education Department);
 - ii. Target groups (Cause of the problem and for which change of behaviour to aid the implementation of the policy will be required);
 - iii. Interest parties (Those who will be positively and negatively affected by the policy). Not only the identification of the two groups is extremely important but equally important is the understanding of how positively or negatively affected each group is and how are they likely to influence the policy beneficiaries and target groups, respectively.
 - iv. Policy beneficiaries;
- (c) Besides the selection protocol for policy actors, there should be an agreed and signed protocol of engagements. The protocol of engagements should be equipped with mechanisms to manage negotiations or discussions amongst policy actors and provide direction on the matter at hand. It is important to be reminded of the fact that the higher the number of private actors, the lesser the set protocol of engagements for policy actors might not be adhered to;

Further to listing all key actors, ensure that roles and responsibilities of each category are well outlined and described;

Activity 5: Identification of Target Group(s) - Setting up the Intervention Hypothesis

The GRR - following Knoepfel et al. (2011) - proposes the following, in relation to the identification of Target Groups and Setting up the Intervention Hypothesis (IH):

- (d) Interrogate the motive behind the selection of target group(s) by each of the province to ensure that there is a common understanding of the notion of *policy target group(s)*,

their role and relationship with the implementing agents (provinces and other institutions);

- (e) Analyse the policy problem with a view to understanding how the *target groups* bear some responsibility or may be the cause of the problem. Consider what it would take to change their behaviour in favour of solving the problem to the benefit of the policy end-beneficiaries;
- (f) Seek to understand the possibility of the target groups resisting change in favour of the status quo. In other words, strive to understand any interest they might have in keeping the situation unchanged and the harm they might perceive or suffer in case of change of situation as a result of the revised and reformulated WP7. This information is key for the choice of *the model of intervention* and the operationalisation of such a model. The following model of interventions or a combination may be considered:
 - i. Exemption to a certain regulation in exchange for behaviour change;
 - ii. Offering of financial rewards;
 - iii. Strategic seduction;
 - iv. Provision of goods and services.
- (g) Establish and record the causal link of target groups' change of behaviour on the attainment of the policy objectives and goal;

Activity 6: Affirming the Cost Analysis Model from Alternative Solutions

- (a) The GRR proposes that the cost analysis of the review and reformulation process and more importantly for the implementation of the reviewed WP7 be conducted diligently;
- (b) If the policy is to attain its set objectives within the set period, the cost analysis should strive to result in an unambiguous cost of implementation broken down to what it will take, in terms of funding and other imperative resources, including human resources;
- (c) The cost analysis is to be calculated on the basis of the reviewed objectives, goals, and set targets.

The GRR suggests that the following, though not limited to, be kept in mind when conducting the cost analysis which should be inclusive of the cost of reviewing the policy:

- i. The cost-benefit analysis should not only demonstrate the review and implementation costs but also the associated benefits, including policy impacts and outcomes, which are to be derived from such costs;
- ii. Establish, to the extent possible, the envisaged benefits of the reviewed WP7, should it be successfully implemented within the timeframe;
- iii. Given the SA context's Constitutional concurrence of the function of education and the complexities inherent to such a position, vis-à-vis the need to rollout a national programme, the GRR proposes that a thorough and thoughtful consideration be given to the matter of the model of funding of the reviewed e-Education policy. This is key in avoiding any implementation that does not assist in nationally-oriented policy.

Activity 7: Political Lobbying

The GRR recommends that that political lobbying for the support of the reviewed and reformulated WP7 be seriously considered. Political support, particularly support from the ruling party, is key for securing a better legal basis or option for the reviewed WP7 which in turn will facilitate the release of needed funding and resources.

7.2.3 How to change

The 'how to change' thinking process is the apex of the TOC. Through it the materialisation of the future solutions is realised. Integral to this thinking process are two constructs, including the 'pre-requisite construct (PRT) and the Transition Tree Construct (TT). The former deals with the planning of the implementation, while the latter deals with the actual implementation. The following sections (7.2.3.1 and 7.2.3.2) provide details guide on how to go about implementing the reviewed and reformulated WP7.

7.2.3.1 Reviewing WP7: The Pre-requisite (PRT) Construct

While the design of the future solutions is one of the key constructs in the pursuit of the change or the reviewed WP7, implementing or auctioning of such designed future solutions the cornerstone of the reviewed and reformulated WP7. Any implementation phase that, however, is not thoroughly and meticulously planned predisposes the actual implementation to failure and undermines and casts doubt on the previous planning which brought about the future solutions.

The pre-requisite (PRT) construct of the TOC process helps with the planning of the implementation of the solutions crafted during the FRT construct. This is done by first and

foremost identifying obstacles - including those inherent to the solution itself - which might stand in the way of implementing the reviewed WP7 objectives. For each identified obstacle, an immediate or corresponding objective should be developed to overcome such obstacles (Sabbaghi & Vaidyanathan, 2004; Youngman, 2009; Şimşit et al., 2014). In other words, the PRT construct recommends that for any implementable activity to be undertaken, policymakers/implementers seek to, first, analyse the activity to:

- 1) Identify or pre-empt any possible obstacle(s) which might negatively interfere with the smooth implementation of the activity, and;
- 2) Set up immediate tasks to mitigate or counter the pre-empted obstacles in a manner that can possibly offset the obstacles, thereby permitting the smooth implementation of the activity.

The GRR advances the following example to serve as a guide on how to pre-empt obstacles to implementation and how such obstacles can be dealt with:

Suppose that one of the objectives of the reviewed WP7 is that “all public-school classrooms be equipped with at least one laptop computer to which a data projector and printers are to be connected to, for the purpose of facilitating teaching and learning”. To detect obstacles/risks which may hinder the rollout of this objective, the following could be undertaken:

Activity 1: Identification of possible obstacles

- (a) Conduct a brainstorming exercise on the objective under assessment aimed at searching or identifying any possible obstacles which might stand in the way of ensuring that the objective is attained. The assessment may be facilitated by posing a variety of questions which may include a question such as:
 - i. "What are the factors that could prevent/hinder equipping all public-school classrooms with at least one laptop computer, a data project and a printer, and ensure that all of them are connected to one another?";
- (b) List all possible hindering factors and their corresponding possible harms to the attainment of the objective.

Activity 2: Development of mitigating tasks to offset the obstacles.

- (a) For each identified obstacle, develop tasks aimed at dealing and cancelling/offsetting the obstacle, to the extent of nullifying or rendering it (obstacle) ineffective;

- (b) Ensure that all necessary resources for the mitigation are readily available. If not, ensure that there is a credible plan (with concrete activities) on how and when to make the necessary resources available;

Activity 3: Sequencing the rollout objectives.

- (a) Sequence the rollout of the objective based on the sequence of the attendance of the immediate obstacles. For example, the classrooms that are readily available in terms of their security may be attended to first while those with security issues are getting the necessary attention. This is, however, subject to other logistical imperatives and saving of costs related to travelling for instance. Table 7.2 below depicts the outlined three activities.

Table 7.2: Identification and tackling of obstacles to implementation.

Question to identify obstacles	Possible answer	Obstacle	Immediate objective (task to tackle the obstacle)
How many classrooms (public school) does each province have to get the total of all the present classrooms in the country?	e.g. NC: 3727 classrooms EC: 28600 classrooms	<ul style="list-style-type: none"> Getting accurate data from each province. Verification of the data. 	<ul style="list-style-type: none"> Setting up an electronic system for the capturing of data by each province. Put mechanisms in place for the verification of data. Set up bidding rules for accountability and consequence management.
How many of these classrooms are secured enough to host the equipment?	2002 classrooms	1725 classrooms have to be secured before rollout is considered there.	<ul style="list-style-type: none"> Draw a budget for securing the 1725 classrooms. Identify the sources of funding. Ensure that the funding is secured. Appoint the service provider. Ensure the classrooms are secured and ready for the project.
How much money will be needed for this objective to be attained?	The project requires a total of R300 million, including the cost of classroom repairs.	Availability of funding (source of funding).	Identify the source of funding. Ensure the funding is secured. The project team is established and resources for the rollout secured.

7.2.3.2 Implementation Plan of the Reviewed WP7: Transition Tree Construct

The Transition Tree (TT) construct of the TOC epitomises the detailed implementation plan which operationalises the desired changes crafted during the FTR and cleansed during the PRT. As such, the TT constitutes the culmination of work done throughout the TOC process. The TT process assumes that the crafted desired solutions that it prepares for implementation are cleansed - to the extent possible - of any obstacles that could hinder the realisation of designed solutions (2015). In the case of this guide, it is the implementation or action plans that, above all, give meaning to the realisation of WP7’s objectives and goal(s). Thus, the study proposes - as a contribution to the basic education sector - a practical web-based implementation instrument or toolkit application that is aimed at operationalising or implementing the reviewed and reformulated WP7.

Further to facilitating the actual implementation of the reviewed and reformulated WP7, the toolkit will, as well, assist the DBE in its constitutional mandate of monitoring and evaluating the implementation of policies by provinces, with the implementation of WP7 being a case in point. As such, the development of the web-based toolkit application, which is an inclusive part of the GRR, constitutes a further contribution of this research study to the basic education sector. This, in addition to the proposed guidelines.

7.2.3.2.1 The web-based Toolkit to Operationalise the Reviewed WP7

The use of the application is conditioned or presupposes that the following aspects of the reviewed WP7 are unambiguous:

- 1) The legal grounding of the reviewed and reformulated WP7 is sound and commensurate to its importance and weight in the context of the imperatives of quality education in 21st century. Lessons learned from the current legal standing of WP7 and how it might have contributed to the policy failure to attain its set objectives and goal should be factored in when considering the legal standing for the reviewed and reformulated WP7;
- 2) The reviewed policy (WP7) goals are clearly outlined and defined. Desired outcomes and outputs are well established and associated to clearly outline measurable performance indicators;
- 3) Reviewed policy objectives are specific, measurable, attainable, rational, and time-bound (SMART);
- 4) The reviewed policy goals and objectives remain within the legal framework of the law;
- 5) For each strategic objective, there are already crafted performance indicators or standards;
- 6) The target groups (TGs) are clearly identified and there is clarity on both, the hypothesis of causality (HC) that facilitated the correct identification of the TGs and the interventions hypothesis (IH) are accordingly crafted and their source of funding established;
- 7) Policy resources are identified and there are mechanisms for the sustainability of established and secured funding;
- 8) Organisational design - both at national and provincial levels - for the implementation of the reviewed and reformulated policy is readjusted and officials capacitated accordingly.

See appendix K (including its subsections) for more details on how to use the system and navigate throughout.

7.3 CONCLUSIONS

White paper seven (WP7) sought to ensure that all learners in the further education and training (FET) phase and those in general education and training (GET) become ICT capable by 2013. This meant being able to "...use ICT confidently and creatively to help develop the skills and knowledge they [needed] to achieve personal goals and to be full participants in the global community" (DoE, 2004: 17). The use of ICT confidently and creatively was not the goal of WP7. It was, instead, a vital means to facilitate the acquisition of 21st century skills and knowledge envisioned to be possessed by the GET and FET learners for them to achieve their personal goals and contribute meaningfully to the community at large. The nobility of such a transformative policy that singled out ICT as its instrument for its cause - and this in the light of the unfortunate apartheid divisive education systems - cannot be overemphasised.

This study was, however, initiated due to the current reality of WP7 which suggests its failure to reach its set objectives and goal as envisaged. That is, principally, in the context of facilitating the acquisition of 21st century skills and knowledge, key for freeing individual potentials and contributing thereby to personal growth and the growth of the society. According to various value-driven studies, the failure has been attributed to factors such as the reluctance and inability of teachers to integrate ICT in their daily teaching, the lack of adequate resources, including funding allocation (Howie & Blignaut, 2009; Padayachee, 2017). In addition, Mooketsi and Chigona (2014) found that WP7 lacked leeway for localisation which also led to some of its implementation challenges. This study however, has contended that the reported reasons or causes of WP7 failure to reach its set objectives and goal are incomplete in the absence of any study interrogating the policy itself, by looking at the context of its formulation and the impact such context might have had on the policy content and its implementation thereof. The study's argument found expression from the literature's contention that the context of policy formulation has an impact on the policy content and the policy implementation (Rivzi & Lingard, 2009; Knoepfel et al., 2011).

The study revealed that - because of a three-dimensional interrogation of WP7 that included an assessment of the policy as *process*, *texts* and *discourse* - a number of formulation flaws predisposed WP7 to implementation challenges which led to its reported failure to reach the set objectives and goal. The main the findings can be summarised as follows:

- 1) As a *process*, the formulation of WP7 did not follow the conventional process of public policy formulation. This led to several formulation flaws, including:
 - (a) Ambiguity/lack of clarity in the *policy problem* of which no trace of articulation could be established;
 - (b) Lack of rules or criteria for the selection of policy actors, resulting in the excessive influence of the positively affected policy actors while other equally important policy actors were completely left out of the formulation process, and finally;
 - (c) The assumption by policymakers that the influx of donations in ICT equipment to the DoE and schools was permanent, therefore reliable, and sustainable for the attainment of the policy goal and objectives.

- 2) As *texts*, the study has established that WP7 bears the characteristics of symbolic policies, tantamount of a grandstanding policy. As such, the radical transformative stance of the textual perspective of WP7 does not find concurrence in its application, nor in its everyday discourse. This is further exacerbated by the complete absence of a coherent strategy for the realisation of the policy vision and goal. The policy text clearly points to deficiencies in crafting of both:
 - (a) The political administrative programmes (PAP), including an incommensurate legal basis which led to challenges with resources allocation to the policy, and;
 - (b) The political administrative arrangements (PAA), including deficiencies in the identification and management of the targets and the lack of directives for the management of the implementing agents.

- 3) From its *discourse* perspective, WP7 was found to have remained in both, the defunct curriculum 2005 (C2005) from which it derived its existence, and HIV/AIDS discourse which perceived the introduction of ICT in education as a panacea to the then looming teacher shortage, resulting from the devastation of the pandemic. As such, it lacked legal grounding and credibility, therefore possible discouragement/disbandment in terms of its applicability or implementation.

All the above summed up to a policy that was not designed with implementable intention but was bound by external pressures without clearly identifying the quintessence of its formulation.

The symbolic nature of WP7 is further affirmed by its failure to pass the *Validity tests* in all the four aspects of the tests, including the *comprehensibility test*, the *trueness test*, the *sincerity test* and

the *legitimacy test*. The observed concerted efforts to conceal the hidden true nature of WP7, including its grandstanding and symbolic postures, is exposed by the Theory of Communicative Action-Validity Claims (TCA-VC).

Whether WP7 formulation's flaws revealed by this study were deliberate or not, what is clear is that the socioeconomic context of its formulation played a key role in the direction and genuineness of such a project at the time. The fact that the formulation of WP7 was not informed or resulted from an identified social or and educational problem that no other intervention could provide answers to - rather than the formulation of a policy - is an indication of how the context of its formulation weighted in. It is the dire socioeconomic conditions of the majority and previously disadvantaged population that seems to have justified government's lack of funding for the implementation of WP7, albeit the compelling nature of the case for ICT in education. The need for instance to provide meals to many learners who were desperately in need could not be compared to the introduction of ICT in education regardless of how the sought transformation of the education system could have been accelerated by it.

Completely ignoring or turning away from such a project during a period when the discourse of ICT integration in education was prevalent, whether for good reasons or not, was neither an option nor a possibility to contemplate.

The call for change - particularly educational change in the context of the post-apartheid era that culminated in the launch and adoption of curriculum 2005 - centered in the outcomes-based education (OBE) added to the pressure to embrace ICT in education - even though there was no clear and specific identified problem that an ICT in education strategy was to address. A pseudo or symbolic integration of ICT in education was therefore the plausible option, given the influx of donated computers and software by multinationals and interested parties. Adhering to the conventional process of policy formulation was therefore not a preoccupation as what mattered was the presence of donated computers in schools - especially previously disadvantaged schools - whether they were being used or collecting dust. The formulation of a policy - as argued by some of the participants - was tacitly for the coordination and equitable distribution of donated computers while the policy text must be politically right and aligned with contemporary principles of ICT in education.

The lack of reliable and sustainable funding from the state for the rollout of the project which solely relied on the donations for its survival bears testimony of the symbolism nature of WP7, whose the textual vision of transforming teaching and learning has remained a mere slogan that does not find expression in any other document. The failure of WP7 to pass all the four validity

tests conducted on its textual format (perspective) is very logical and consistent with the findings related to its socioeconomic and political context of formulation, as discussed above.

Since the need for the transformation of teaching and learning through ICT - in the context of 21st century imperatives for personal and collective growth - is still relevant as it was during the time of WP7 formulation, this study proposed a review and reformulation (GRR) of WP7. The latter constitutes the study's original contribution to knowledge production and to the education sector in South Africa. The GRR is grounded on the theory of constraints (TOC) that finds expression in the conceptual framework (CF) of the study, particularly in the evaluative section of the context of practice. This is what justifies its formative rather summative nature that resonates with the cyclic perspective of any public policy which has been for too long overlooked in the case of WP7, regardless of how key such a perspective is in our continual quest for improvement. Following the TOC's three (3) thinking processes (what must change, what to change to, and how to change) that embed five (5) constructs, the GRR of WP7 has proposed guidelines which may lead to the review and reformulation of WP7. The guide ends with a web-based application that can be used to operationalise the newly reviewed and reformulated WP7.

7.4 RECOMMENDATIONS

The recommendations of this study are twofold. They include, those related to the policy issues (7.4.1) and those related to research in general (7.4.2).

7.4.1 Policy issues

The guidelines for the review and reformulation of WP7 (GRR) is the major contribution of this study. It also serves as the main recommendation of the study. In the light of the revealed formulation flaws - from all the three perspectives (process, texts, and discourse) of WP7 - it is highly recommended that the GRR not only sparks the discussion on the pressing need to review the policy but also and more importantly guides the journey to the actual review and reformulation of the South African (SA) e-Education policy. Any reluctance to attend to the revealed formulation flaws - that are found to have resulted from the context under which WP7 was formulated - can be seen as a conscience and resolute decision to continue with the status quo, regardless of its counterproductive nature to our education system and the country as a whole.

Considering, however, the fact that a well formulated policy will still be meaningless and likely to produce the same result (fail), and since this study could not find any concrete evidence of the state's commitment to WP7, the following are recommended:

- 1) The prevalence of ICT in our daily lives, intensified by the prominence of mobile devices and the positive pedagogical development on their use for teaching and learning, makes it fiscally affordable for a sustainable model of ICT integration that can be funded by the state as opposed to the conditions under which WP7 was formulated. This study, therefore, recommends that the Department of Basic Education (DBE) consider the possibility of elevating the e-Education policy to *norms and standards* but prior to that the basis of such elevation should be clearly outlined. The underlining thought of such elevation is to ensure the security of funding for e-Education;
- 2) The DBE to consider elevating ICT integration/e-Education to a *priority programme* with a view to facilitating and fast-tracking the adoption of ICT integration by teachers, curriculum advisers, principals and all other relevant stakeholders. As a result of such elevation, the funding of e-Education could be protected and integrated into the conditional grant programmes which will prevent the use of e-Education funding to other programmes.

7.4.2 Further Research

Besides the proposed web-based toolkit/application for operationalising the implementation plan of the newly reviewed WP7 and in the context of affirming new alternative solutions, the study proposed three flowcharts - including two in the thesis and one in the appendix - to objectively guide some of the solutions. The two in-thesis flowcharts are referred to as figures 7.2 and 7.3 that, respectively provide guidelines for the affirmation or rejection of the alternative EC/CRD emerging solutions and the affirmation or rejection of the alternative policy problem. The one in the appendix F, referred to as F1 is aimed at assisting with the affirmation or rejection of the alternative policy goal for the reviewed and reformulated WP7.

These flowcharts and many more that may arise from the proposed GRR present an opportunity for further studies which may seek to automate key policy formulation processes that are often prone to policy formulation flaws in the absence of extra care during the policy formulation process. It is therefore recommended that further research consider undertaking or exploring the possibility of developing a web-based application that can assist with the automation of the policy formulation process.

REFERENCES

- Adom, D., Hussein, K.E. & Agyem, J.A. 2018. Theoretical and Conceptual Framework: Mandatory ingredients of a quality research. *International Journal of Science Research*. Vol. 7, Issue 1 No 22-8179
- African National Congress (ANC). 1992. Ready to Govern: ANC Policy Guidelines for a Democratic South Africa. Retrieved 23 May 2022 from: <https://www.anc1912.org.za/policy-documents-1992-ready-to-govern-anc-policy-guidelines-for-a-democratic-south-africa/>
- African National Congress (ANC). 2017. 5th ANC National Policy Conference - Discussion Document on Basic Education, Higher Education & Training, Health, Science, Technology and Innovation.
- Aftab, M. & Ismail, I. 2015. Defeating Poverty through Education: The role of ICT. *Transformations in Business & Economics*, Vol. 14, No. 3 (36), pp. 42-59
- Albritton, R.B. 1979. Measuring Public Policy: Impacts of the Supplemental Security Income Program. *American Journal of Political Science*. Vol. 23, No. 3, pp. 559-578
- Alnoaimi, T., Hinostroza, J.E., Issacs, S., & Kozma, R. 2014. Using ICT Policy to Transform Education. In UNESCO, *Transforming education: the power of ICT policies* (pp. 192 – 237)
- Anney, V.N. 2014. Ensuring the Quality of the Findings of Qualitative Research: Looking at Trustworthiness Criteria. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 5, 272-281.
- Ansell, C., Sørensen, E., & Torfing, J. 2017. Improving Policy Implementation through collaborative policymaking. *Policy and Politics*, 45(3), pp.467–486.
<https://doi.org/10.1332/030557317X14972799760260>
- Anyebe, A.A. 2018. An overview of Approaches to the Study of Public Policy. *International Journal of Political Science*. Volume 4, Issue 1, January 2018, pp. 08-17
- Atieno, O.P. 2009. An Analysis of the Strengths and Limitation of Qualitative and Quantitative Research Paradigms. *Problems of education in the 21st century* Vol.13, pp. 13 - 18
- Bacchi, C. 2009. *Analysing Policy: What's the Problem Represented To Be?* Pearson
- Bachmann, M.O., & Booyesen, F.L. 2003. Health and Economic Impact of HIV/AIDS on South African households: a cohort study. *BMC Public Health* 3, 14 (2003).
<https://doi.org/10.1186/1471-2458-3-14>
- Bain, E.G. 1992. *An Analysis of Public policy Implementation with Particular Reference to Public Health Policy*. [Doctor Literarium et Philosophiae, University of South Africa].
- Ball, S.J., 1993. What is policy? Texts, Trajectories and Toolboxes. *Discourse: Studies in the Cultural Politics of Education*, 13(2), pp.10-17, DOI: 10.1080/0159630930130203
- Ball, S.J., 2015. What is policy? 21 years later: Reflections on the Possibilities of Policy Research, *Discourse: Studies in the Cultural Politics of Education*, 36(3), pp.306-313. DOI: 10.1080/01596306.2015.1015279

- Ball, S.J., Maguire, M., Braun, A., & Hoskins, K. 2011. Policy Actors: Doing Policy work in Schools. *Discourse*, 32(4), 625e639. <https://doi.org/10.1080/01596306.2011.601565>
- Basias, N. & Pollalis, Y. 2018. Quantitative and Qualitative Research in Business & Technology: Justifying a Suitable Research Methodology. *Review of Integrative Business and Economics Research*, Vol. 7, Supplementary Issue 1
- Barkenbus, J. 1998. Expertise and the Policy Cycle. Energy, Environment, and Resources Center. The University of Tennessee.
- Behar, A. & Mishra, P. 2015. ICTs in Schools: Why Focusing Policy and Resources on Educators, Not Children, Will Improve Educational Outcomes. In S. Dutta, T. Geiger, B. Lanvin (Eds), *The Global Information Technology Report 2015 ICTs for Inclusive Growth* (pp.73-78)
- Bell, L., & Stevenson, H. 2006. *Education Policy: Process, Themes and Impact*. London. Routledge.
- Benoit, F. 2013. *Public Policy Models and Their Usefulness in Public Health: The Stages Model*. Montréal, Québec: National Collaborating Centre for Healthy Public Policy.
- Berkowitz, D. (1992). Who sets the media agenda? The Ability of Policymakers to determine news decisions. In J. D. Kenamer (ed.), *Public opinion, the press, and public policy*. Westport, CT: Praeger, pp. 81–102.
- Berg, B. L., & Lune, H. 2012. *Qualitative Research Methods for the Social Sciences*. Boston, MA: Pearson.
- Birkland, T. 2019. *An Introduction to the Policy Process: Theories, Concepts, and Models of Public Policy Making*. 10.4324/9781351023948.
- Bleichrodt, H., & Quiggin, J.S. 1999. "Life-cycle preferences over Consumption and Health: when is cost-effectiveness analysis equivalent to cost–benefit analysis?" *Journal of Health Economics* 18(1999), pp. 681–708.
- Bowen, G. A. 2009. Document Analysis as a Qualitative Research Method. *Qualitative Research journal*.
- Brinkmann, S. 2020. Unstructured and Semi Structured Interviewing. In P. Leavy (Ed.), *The Oxford Handbook of Qualitative Research* (2nd Edition) (pp.424 - 456).
- Bunniss, S., Kelly, D.R. 2010. *Research Paradigms in Medical Education Research*. *Medical Education* 44(358–366). <https://doi.org/10.1111/j.1365-2923.2009.03611.x>
- Bolton, R. 2005. Habermas's Theory of Communicative Action and the Theory of Social Capital. Association of American Geographers, Denver, Colorado, April, 2.
- Bowe, R., Ball, S. J., & Gold, A. 1992. *Reforming Education and Changing Schools: Case studies in policy sociology*. London ; New York: Routledge.
- Bridgman, P. & Davis, G. 2004. *The Australian Policy Handbook*, 3rd Ed. Allen and Unwin, Australia
- Broc, J.S., Oikonomou, V. & Dragovic M. 2019. Guidelines on how to Integrate Evaluation into the Policy Cycle. Report D4.2.

- Cahn, M.A., 2012. Institutional and Noninstitutional Actors in the Policy Process. *Public policy: The essential readings*, 2, pp.199-206.
- Camp, W. G. 2001. Formulating and Evaluating Theoretical Frameworks for Career and Technical Education Research. *Journal of Vocational Educational Research*, 26 (1), 27-39.
- Carpentier, F. 2014. Agenda Setting and Priming Effects Based on Information Presentation: Revisiting Accessibility as a Mechanism Explaining Agenda Setting and Priming. *Mass Communication & Society*, (17), p.531-552. 10.1080/15205436.2013.816744
- Cerna, L. 2013. *The Nature of Policy Change and Implementation: A Review of Different Theoretical Approaches*. Organization for Economic Co-operation and Development (OECD)
- Chakraborty, B., Chakraborty, S., Dahiya, V.S., & Timajo, L. 2018. Education as an Instrument of Social Change and Enhancing Teaching-Learning Process with the help of Technological Development. <https://www.researchgate.net/publication/325143953>
- Chigona, A. & Chigona, W. 2008. MXit It Up in the Media: Media Discourse Analysis on a Mobile Instant Messaging System. *African Journal of Information and Communication*, 9, 42-57.
- Chisholm, L. 2005a. The making of South Africa's National Curriculum Statement. *Journal of Curriculum studies*, 2005, vol. 37(2), pp. 193-208. DOI: 10.1080/0022027042000236163
- Chisholm, L. 2005b. The politics of Curriculum Review and Revision in South Africa in Regional context. *Compare: A Journal of Comparative Education*. Vol. 35(1), pp.79-100. 10.1080/03057920500033563.
- Chisholm, L., 2012. Apartheid Education Legacies and new Direction in Post-apartheid South Africa. *Storia delle donne*, Vol. 8, pp.81-103. DOI: 10.13128/SDD-11892.
- Cloete, F. & de Coning, C. 2011. *Improving Public Policy*. Pretoria: Van Schaik Publishers.
- Cochran-Smith, M., Piazza, P & Power, C. 2013. The Politics of Accountability: Assessing Teacher Education in the United States. *The Educational Forum*, 77:1, 6-27, DOI: 10.1080/00131725.2013.739015
- Cohen, D. & Crabtree, B. 2006. Qualitative Research Guidelines Project. Retrieved 14 June 2021 from: <http://www.qualres.org/HomeEval-3664.html>
- Cohen, L., Manion, L. & Morrison, K. 2007. *Research Methods in Education* (Sixth edition). Routledge.
- Connelly, L. M. 2016. Trustworthiness in Qualitative Research. *Medsurg Nursing*, 25(6), 435.
- Cook, F.L., Tyler, T.R, Goetz, E.G., Gordon, M.T., Protes, D., Leff, D.R. & Molotch, H.L. 1983. Media and Agenda Setting: Effects on the Public, Interest Group Leaders, Policy Makers, and Policy. *Public Opinion Quarterly*, 47(1), pp.16-35, <https://doi.org/10.1086/268764>
- Creswell, J. W. 1998. *Qualitative inquiry and research design. Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Creswell, J. W. 2009. Editorial: Mapping the Field of Mixed Methods Research. *Journal of Mixed Methods Research*, 3(2), 95–108. <https://doi.org/10.1177/1558689808330883>

- Creswell, J. W. 2014. *Research Design: Qualitative, Quantitative and Mixed Method approaches*. SAGE Publications.
- Cuban, L.1990. Reforming Again, Again, and Again. *Educational Researcher*, Vol. 19(1), pp. 3-13. Retrieved 17 Sept 2019 from: <https://www.jstor.org/stable/1176529>
- Cukier W., Bauer R., & Middleton C. 2004. Applying Habermas' Validity Claims as a Standard for Critical Discourse Analysis. In: Kaplan B., Truex D.P., Wastell D., Wood-Harper A.T., DeGross J.I. (eds) *Information Systems Research. IFIP International Federation for Information Processing*, Vol. 143. Springer, Boston, MA. https://doi.org/10.1007/1-4020-8095-6_14
- Cukier, W., & Thomlison, N. 2005 Two-Tier Health-Care, Education, and Policing: A Comparative Analysis of the Discourses of Privatisation. *Canadian Journal of Criminology and Criminal Justice*, 47(1), 87-126.
- Cukier, W., Ngwenyama, O., Bauer, R. & Middleton, C., 2009. A Critical Analysis of Media Discourse on Information Technology: Preliminary Results of a proposed Method for Critical Discourse Analysis. *Information systems journal*, 19(2), pp.175-196.
- Curriculum 2005 Review Committee Report. 2000. *Review Committee Report on Curriculum 2005 to Parliament Education Portfolio Committee*. National Parliament of South Africa. <https://pmg.org.za/committee-meeting/3204/>
- Dale, J. & Khuong, V. 2016. The ICT Revolution, World Economic Growth, and Policy Issues. *Telecommunications Policy*. DOI: 40. 10.1016/j.telpol.2016.01.002.
- DeCanio, S.J., Dibble, C. & Amir-Atefi, K. 2000. The Importance of Organizational Structure for the adoption of Innovations. *Management Science*. Vol. 46(10), pp. 1285–1299
- De Chesnay, M. 2015 Nursing Researching Using Phenomenological Design. In M. De Chesnay (Ed.), *Nursing Research Using Phenomenology: Qualitative Designs and Methods in Nursing* (pp. 25-50). Springer Publishing
- Department of Education (DoE). 2004. *White Paper on e-Education. Transforming Learning and Teaching through Information and Communication Technologies (ICTs)*. Notice 1869 of 2004, published on page 3 of *Government Gazette* No. 26734 of 26 August 2004
- Department of Education (DoE). 2005. Annual Report 2005/ 2006. Retrieved 2 September 2021 from: https://www.gov.za/sites/default/files/gcis_document/201409/education05060.pdf
- Department of Education (DoE). 2006. Annual Report 2004/ 2005. Retrieved 2 September 2021 from: <https://www.education.gov.za/Portals/0/Documents/Reports/Annual%20Report%202004-2005.pdf?ver=2010-07-29-105116-767>
- Department of Basic Education (DBE). 2009. *Report of the Task Team for the Review of the Implementation of the National Curriculum Statement*. Retrieved 5 June 2022 from: https://www.gov.za/sites/default/files/gcis_document/201409/reviewimplncs.pdf

- Department of Basic Education (DBE). 2011. *Strategic Plan 2011 – 2014*. Retrieved 21 August 2022 from: <https://www.education.gov.za/Portals/0/Documents/Reports/DBE%20StratPlan%202011-2014.pdf?ver=2015-01-30-111357-713>
- Department of Basic Education (DBE). 2020. *Action Plan to 2024: Towards the realisation of Schooling 2030. Taking forward South Africa's National Development Plan 2030*. Retrieved 21 August 2022 from: <https://www.education.gov.za/Portals/0/Documents/Publications/Action%20Plan%20to%202024%20Brief.pdf?ver=2020-09-14-125337-337>
- De Vaus, D. 2001. Research Design in Social Research. *Research design in social research*, 1-296.
- Dittmer J. 2010. Textual and Discourse Analysis. In DeLyser, D.; Herbert, S.; Aitken, S.; Crang, M. & McDowell, L. (Eds). *The SAGE Handbook of Qualitative Geography* (1st ed., 274 – 286). ISBN 978-1-4129-1991-3
- Dlamini, R., & Coleman, E. 2017. ICT in Education. *South African Computer Journal*, 29(2), vii-x.
- Eisinger, R.W. & Fauci, A.S. 2018. "Ending the HIV/AIDS Pandemic". *Emerging Infectious Diseases*. 24(3): pp. 413–416. DOI:10.3201/eid2403.171797. ISSN 1080-6040. PMC 5823353. PMID 29460740
- Elkind, D. 2005. Response to Objectivism and Education. *The Educational Forum*, Vol. 69(4), pp.328-334, Retrieved 6 April 2021 from: <https://files.eric.ed.gov/fulltext/EJ724883.pdf>
- Epstein, B.G. 2004. The Demographic Impact of HIV/AIDS. *Medicine, Political Science*. Retrieved May 2022 from: <https://www.imf.org/external/pubs/ft/AIDS/eng/chapter1.pdf>
- Fairclough, N. 1995. *Critical Discourse Analysis: The Critical Study of Language*. Longman Group, New York, NY, USA.
- Fink, A., 2002. *How to ask survey questions* (Vol. 1). Sage.
- Fouka, G. & Mantzourou, M. 2011. What are the Major Ethical Issues in Conducting Research? Is there a Conflict between the Research Ethics and the Nature of Nursing? *Health Science Journal*, 5(1) pp.3-14
- Galletta, A. 2013. *Mastering the Semi-Structured Interview and beyond: From Research Design to Analysis and Publication*. New York University Press. <https://doi.org/10.18574/nyu/9780814732939.001.0001>
- Gallo, M. 2020. *Bantu Education, and Its Living Educational and Socioeconomic Legacy in Apartheid and Post-apartheid South Africa*. PhD Fordham University.
- Garraud, P. 1990. 'Politiques nationales: élaboration de l'agenda', *L'Année Sociologique*, Vol. 40, pp. 17-41.
- Gasson, S. 2004. Rigor in Grounded Theory Research: An Interpretive Perspective on Generating Theory from Qualitative field studies. In M. E. Whitman & A. B. Woszczyński (Eds.) *The Handbook of Information Systems Research* (pp. 79–102). Hershey, PA: Idea Group.

- Giorgi, S. 2017. *How to improve the Evaluation of Complex Systems to better inform Policymaking– Learning from Evaluating Defra’s Reward & Recognition Fund*. Fellowship Report, July 2017.
- Goldratt, E. M. 1992. *The Goal*, 2nd Revised Edition, Great Barrington, MA: North River Press.
- Government Gazette Act No.64 of 2001. *Telecommunications Act, 1996 (Act No. 103 of 1996)*. Pretoria: Government Printers.
- Griggs S. & Boaz, A. 2011. *The Practice of Policymaking. Evidence & Policy. A journal of Research Debate and Practice*. The Policy Press ISSN 1744 2648
- Gumede, V. 2008. Public policymaking in a post-apartheid South Africa: A preliminary perspective. *Journal of Development studies* 38 (2), pp. 7-23
- Gumede, V. 2018. Presidencies and Policy in Post-Apartheid South Africa. *Politeia* 36 (1), 17 <http://doi.org/10.25159/0256-8845/3096>
- Gumede, V. & Biyase, M. 2016. Educational Reforms and Curriculum Transformation in Post-apartheid South Africa. *Environmental Economics*, 7(2), pp. 69 - 76
- Guo, L., Vu, H.T., & McCombs, M.E. 2012. An Expanded Perspective on Agenda-Setting Effects: Exploring the third level of agenda setting. *Revista de Comunicación*. (11), pp.51-68.
- Gupta, M.C. and Kerrick, S.A. 2014 "A Conflict Resolution Tool for Project Managers: Evaporating Cloud," *Journal of International Technology and Information Management*. 23(4). Retrieved 7 September 2022 from: <https://scholarworks.lib.csusb.edu/jitim/vol23/iss3/4>
- Haacker, M. 2002. *The Economic Consequences of HIV/AIDS in Southern Africa*. International Monetary Fund (IMF), Working Paper No. 02/38.
- Habermas, J. 1984. *The Theory of Communicative Action*, McCarthy, T. (Trans.). Beacon Press, Boston, MA, USA. (Original work published 1981)
- Hammett, D. & Staeheli, L. 2013. Transition and the Education of the New South African Citizen. *Comparative Education Review*, 57(2), pp. 309-331. The University of Chicago Press. <https://www.jstor.org/stable/10.1086/669123>
- Hanekom, S.X. 1987. Hanekom, S. X. (Ed.). 1987. *Public policy: Framework and instrument for action*. Pretoria: Southern Book Publishers.
- Hasan, Z., 2016. Evaluation of a government ICT policy document from a communicative action perspective: A case of Bangladesh. *The Electronic Journal of Information Systems in Developing Countries*, 73(1), pp.1-14.
- Hall, J. B. 2018: Processes of Reforming: The case of the Norwegian State School Inspection Policy Frameworks, *Education Inquiry*, DOI: 10.1080/20004508.2017.1416247
- Heidegger, M. 2005. *Introduction to Phenomenological Research*. Indiana University Press
- Henry, N. 2004. *Public Administration and Public Affairs*. 9th ed. New Delhi: Prentice Hall.
- Hoornbeek, J.A. & B. Peters, G. 2017. Understanding policy problems: a refinement of past work, *Policy and Society*, 36(3), pp.365-384, DOI: 10.1080/14494035.2017.1361631

- Howie, S. J., & Blignaut, A. S. 2009. South Africa's Readiness to Integrate ICT into Mathematics and Science Pedagogy in Secondary Schools. *Education and Information Technologies*, 14(4), 345-363.
- Howlett, M. 2011. *Designing public policies: Principles and Instruments*. New York: Routledge.
- Howlett, M. and Ramesh, M. 2003. *Studying Public Policy: Policy Cycles and Policy Subsystems*. Toronto, Oxford University Press.
- Howlett, M. & Geist, S. 2012, 'The policy making process', in E. Araral, S. Fritzen, M. Howlett, M. Ramesh, and X. Wu (eds), *Routledge Handbook of Public Policy*, London: Routledge, pp.17–28.
- Hudson, B., Hunter, D. J. Peckham, S. (2019). Policy Failure and the Policy-implementation Gap: can policy support programs help? *Policy Design and Practice*. Vol. 2. Pp. 1-14. 10.1080/25741292.2018.1540378.
- Hupe, P.L., 2011. The Thesis of Incongruent implementation: Revisiting Pressman and Wildavsky. *Public Policy and Administration*, 26(1), pp.63-80.
- Ibanga, D.A. 2016. Julius Nyerere's Philosophy of Education: Implication for Nigeria's Educational System Reform. *Africology: Journal of Pan African Studies*. 9. 109-125.
- International Development Research Center (IDRC), 1993. *Towards a Science and Technology Policy for Democratic South Africa*. IDRC – Canada
<https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/11197/IDL-11197.pdf?sequence=1&isAllowed=y>
- Isaacs, S. 2007. *Survey of ICT and Education in Africa: South Africa Country Report*. World Bank. Online: Retrieved 18 May 2022 from:
https://www.infodev.org/infodev-files/resource/InfodevDocuments_429.pdf
- Iyengar, S. 1990. "The Accessibility bias in Politics: Television news and public opinion". *International Journal of Public Opinion Research*. 2: 1–15. Doi:10.1093/ijpor/2.1.1.
- Janks, H. 1997. Critical Discourse Analysis as a Research Tool, *Discourse: Studies in the Cultural Politics of Education*, 18(3), pp.329-342 <http://dx.doi.org/10.1080/0159630970180302>
- Jann, W., & Wegrich, K. 2007. Theories of the Policy Cycle. *Handbook of Public Policy Analysis: Theory, politics, and methods*, 125, pp.43-62
- Jansen, J & Sayed, Y. 2001 (Eds.). *Implementing Education Policies: The South African Experience*. University of Cape Town Press
- Jansen, J. 1999. Why Outcomes-Based Education will fail: An elaboration. In J. Jansen & P. Christie (Eds.), *Changing curriculum: Studies on outcomes-based*, pp.145-156, Cape-Town, South Africa: Juta
- Johnson, L. 2014. David Coleman and the Technologisation of the Common Core: A critical discourse analysis. *English Teaching: Practice and Critique*. Vol. 13(1), pp. 197-223. <http://education.waikato.ac.nz/research/files/etpc/files/2014v13n1art11.pdf>
- Johnson, S. 2000. The Impact of AIDS on the Education Sector in South Africa. *Abt Associates South Africa Inc*. Retrieved 30 May 2022 from:

- <https://healtheducationresources.unesco.org/sites/default/files/resources/11121IEPKinghorn.pdf>
- Kanjee, A. & Sayed, Y. 2013. Assessment Policy in Post-apartheid South Africa: Challenges for Improving Education Quality and Learning, *Assessment in Education: Principles, Policy & Practice*, 20 (4), pp. 442-469, DOI: 10.1080/0969594X.2013.838541
- Kay, A. 2006. *The Dynamics of Public Policy: Theory and Evidence*, Edward Elgar Publishing Limited, UK.
- Ken, H. and Volker, W. 2004. Political Change, Curriculum Change and Social Formation, 1990 to 2002 in Chisholm (Eds) *Changing Class: Education and social change in post-Apartheid South Africa* (pp.195-220).
- Kendall, K.E., Kendall, J.E., Kah, M.M.O. 2006. Information Technology for Development, Vol. 12 (1) 25-43 (2006). Published online in Wiley InterScience (www.interscience. Wiley.com)
- Khan, A.R. 2016. Policy implementation: Some aspects and issues. *Journal of Community Positive Practices*, XVI (3), 3-12
- Kingdon, J.W. 2011. *Agendas, Alternatives, and Public Policies*. Updated 2nd ed. Longman Classics in Political Science. Boston, MA: Longman.
- Knoepfel, P., Larrue, C., Varone, F., Hill, M. 2011. Public Policy Analysis. 10.1332/policypress/9781861349071.003.0003
- Kon, Z.R. & Lackan, N. 2008. Ethnic disparities in access to care in Post-apartheid South Africa. *AM J Public Health e*, 98(12), pp.2272-2277. DOI:10.2105/AJPH.2007.127829.
- Kosti, N., Levi-Faur, N. & Mor, N. 2019 Legislation and Regulation: Three Analytical Distinctions, *The Theory and Practice of Legislation*, 7:3, 169-178, DOI: 10.1080/20508840.2019.1736369
- Lall, M. 2007. A Review of Concepts from Policy Studies relevant for the analysis of EFA in developing Countries. Creative Pathways to access: Research Monograph No.11. Institute of Education. University of London
- Lammers, J.C. & Gracia, M.A. 2017. Institutional Theory Approaches, in Putnam, L.L. & Mumby, D.K. (ed.) *The Sage Book of Organizational Communication, Advances in Theory, Research and Methods*, 3rd ed., New Delhi, Sage Publication, pp.195–216
- Lammers, J. C., & Barbour, J. B. 2006. An Institutional Theory of Organizational Communication. *Communication Theory*, 16(3), pp.356–377
- Larry, M. (2001). "A Little Glossary of Semantics". http://www.revue-texto.net/Reperes/Glossaires/Glossaire_en.html
- Lelissa T.B. 2018. Research Methodology; University of South Africa, PhD Thesis. *Unpublished*. <https://doi.org/10.13140/RG.2.2.21467.62242>
- Lietz, C. A., Langer, C. L., & Furman, R. 2006. Establishing Trustworthiness in Qualitative Research in Social work: Implications from a Study regarding Spirituality. *Qualitative Social work*, 5(4), pp.441-458.
- Lincoln, Y. S., & Guba, E. G. 1985. *Naturalistic Inquiry*. Newbury Park, C.A.: Sage Publications.

- Lindgren, J., Hult, A., Segerholm, C. & Rönnerberg, L. 2012 Mediating school inspection, *Education Inquiry*, 3:4, 569-590, DOI: 10.3402/edui.v3i4.22055 <https://doi.org/10.3402/edui.v3i4.22055>
- Louw, J. Shisana, O., Peltzer, K., Zungu, N. 2009. Examining the Impact of HIV&AIDS on South African educators. *South African Journal of Education*. Vol. 29(2), pp. 205-217. Retrieved May 31, 2022, from http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S0256-01002009000200004&lng=en&tlng=en.
- Mabin, V. 2015. Goldratt's "Theory of Constraints" Thinking Processes: A Systems Methodology linking soft with hard. *History* (London).
- Mandela, N. 2003: Lighting your way to a better future: Speech delivered by Mr N. R. Mandela at launch of Mindset Network. Nelson Mandela Foundation. Retrieved 21 May 2022 from: http://db.nelsonmandela.org/speeches/pub_view.asp?pg=item&ItemID=NMS909
- Maodzwa-Taruvunga, M. & Cross, M. 2012. Jonathan Jansen and the Curriculum Debate in South Africa: An Essay Review of Jansen's Writings between 1999 and 2009. *Curriculum Inquiry*. 42, pp.126 - 152. 10.1111/j.1467-873X.2011.00573.x.
- Matland, R. 1995, 'Synthesising the Implementation Literature: The ambiguity-conflict model of Policy Implementation', *Journal of Public Administration Research and Theory* 5(2): 145-174.
- McCombs, M., 2002. The agenda-setting role of the mass media in the shaping of Public Opinion. In *Mass Media Economics 2002 Conference, London School of Economics: <http://sticerd.lse.ac.uk/dps/extra/McCombs.Pdf>*.
- McGee, R. & Brock K. 2001. From Poverty Assessment to Policy Change: Processes, Actors and Data. Working paper 133. Institute of Development studies Brighton, Sussex England.
- McGregor, S. L., & Murnane, J. A. 2010. Paradigm, methodology and method: Intellectual integrity in consumer scholarship. *International journal of consumer studies*, 34(4), pp.419-427.
- McKeever, M. 2017. Educational Inequality in Apartheid South Africa. *American Behavioural Scientist*. Vol. 61(1), pp.114–131, SAGE Publications
- Merriam, S. B. 1998. *Qualitative Research and Case Study Applications in Education. Revised and Expanded from " Case Study Research in Education."* Jossey-Bass Publishers, 350 Sansome St, San Francisco, CA 94104.
- Merriam, S. B. 2002. Introduction to Qualitative Research. *Qualitative research in practice: Examples for discussion and analysis*, 1(1), pp.1-17.
- Meyer, J. W., & Scott, W. R. 1983. Centralization and legitimacy problems of local government. In J. W. Meyer & W. R. Scott (Eds.), *Organizational environments: Ritual and rationality* (pp. 199–215). Beverly Hills, CA: SAGE.
- Morrow, S. L. 2005. Quality and trustworthiness in qualitative research in counselling psychology. *Journal of counselling psychology*, 52(2), 250.
- Mortensen, P.B. 2014. Causes and Policy Consequences of Agenda Setting (CAPCAS).

- Mooketsi, B. & Chigona, W. 2014. Different shades of success: educator perceptions of government strategy on e-education in South Africa. *Electronic Journal of Information Systems in Developing Countries*, Vol. 64(1). 10.1002/j.1681-4835.2014.tb00461.x
- Mosehlana, M.B. 2018. *ICT Policy Development and Implementation in South Africa: Towards an Improved E-Government Implementation*. The 3rd Annual International Conference on Public Administration and Development, Stellenbosch University, Saldahna Bay, South Africa
- Motala, E., & Pampallis J., (eds). 2002. Education and Equity - The Impact of State Policies on South African Education. Aldershot, UK: Ashgat
- Msila, V. 2007. From Apartheid Education to the Revised National Curriculum Statement: Pedagogy for Identity Formation and Nation Building in South Africa. *Nordic Journal of African Studies* 16(2), pp. 146–160
- Muller, P. 1990 *Les politiques publiques*, Paris: Presses Universitaires de France.
- National Economic Development and Labour Council (NEDLAC). 2017. Annual Report 2016 – 2017. Retrieved 24 May 2022 from: <https://nedlac.org.za/wp-content/uploads/2020/12/Nedlac-Annual-Report-2017-V20-300817-01-September-2017.pdf> Accessed
- Neiman, M. & Stambough, S.J. 1998. *Rational Choice Theory and the Evaluation of Public Policy*. *Policy Studies Journal*, 26(3), pp.449-465. <https://doi.org/10.1111/j.1541-0072.1998.tb01912.x>
- Office of the President.1995. Act No. 58 of 1995: South African Qualifications Authority. Retrieved 6 June 2022, from: <https://www.saqqa.org.za/docs/legislation/1995/act58-95.html>
- Olaore, I.B. 2014. The Impacts (Positive and Negative) of ICT on Education in Nigeria. *Developing Country Studies*. www.iiste.org ISSN 2224-607X (Paper) 154. ISSN 2225-0565 (Online) Vol. 4(23).
- Oltmann, S. 2016. Qualitative interviews: A Methodological Discussion of the Interviewer and Respondent Contexts. In *Forum: Qualitative Social Research*, Vol. 17(2), pp.1-16. Freie Universität Berlin.
- Online Etymology Dictionary, 2017. *Methodology*. Retrieved 20 March 2021 from: <https://www.etymonline.com/search?q=Methodology>
- Osman, F. 2002. Public Policymaking: Theories and their Implications in Developing Countries.
- Ozga, J. 2000. *Policy Research in Educational Settings Contested terrain*. Open University Press Buckingham. Philadelphia
- Padayachee, K. 2017. A snapshot survey of ICT Integration in South African Schools. *South African Computer Journal*, 29(2), pp.36-65.
- Patton, M. Q. 1990. Qualitative Evaluation and Research Methods (2nd Ed.). Sage Publications, Inc.
- Pillay, P. 2001. South Africa in the 21st Century: Some Key Socio-Economic Challenges. *Friedrich Ebert Stiftung*. Retrieved 07 March 2022 from:

- https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=South+Africa+in+the+21st+Century%3A+Some+Key+Socio-Economic+Challenges+BY+Pundy+Pillay&btnG=
- Ponelis, S. R. 2015. Using Interpretive Qualitative Case Studies for Exploratory Research in Doctoral Studies: A case of Information Systems research in small and medium enterprises. *International Journal of Doctoral Studies*, Vol. 10, pp. 535-550. DOI: <http://ijds.org/Volume10/IJDSv10p535-550Ponelis0624.pdf>
- Popoola, O.O., 2016. Actors in decision making and policy process. *Global Journal of Interdisciplinary Social Sciences*, 5(1), pp.47-51.
- Pradhan, N.S. Su, Y., Fu, Y., Zhang, L. & Yang, Y. 2017. Analysing the Effectiveness of Policy Implementation at the local level: A Case Study of Management of the 2009-2010 drought in Yunnan Province, China. *International Journal of Disaster Risk Science* 8, pp.64-77.
- Pressman J and Wildavsky A. 1973. *Implementation: How Great Expectations in Washington Are Dashed in Oakland; Or, Why It's Amazing that Federal Programs Work at All, This Being a Saga of the Economic Development Administration as Told by Two Sympathetic Observers Who Seek to Build Morals on a Foundation of Ruined Hopes*. Berkeley: University of California Press.
- Shariffar, M. & Rahimi, E. 2015. Critical Discourse Analysis of Political Speeches: A Case Study of Obama's and Rouhani's Speeches at UN. *Theory and Practice in Language Studies*. Vol. 5(2), pp.343-349. DOI: <http://dx.doi.org/10.17507/tppls.0502.14>
- Qu, S. Q., & Dumay, J. 2011. The Qualitative Research Interview. *Qualitative research in accounting & management*.
- Ralarala, K. 2019. Policy analysis as “text” in Higher Education: Challenging South Africa’s “use of official languages act”: A case-based approach. *South African Journal of Higher Education* <http://dx.doi.org/10.20853/33-4-3030> Vol. 33(4), pp.253–270
- Rein, M. 1983. From Policy to Practice, Macmillan, London. *Journal of Social Policy*, 14(1), pp.113-115. DOI: 10.1017/S0047279400014355
- Rizvi, F. & Lingard, B. 2009. *Globalizing Education Policy*. Routledge. London and New York.
- Rizvi, F., & Lingard, B. 2010. *Globalizing education policy*. London ; New York, NY: Routledge.
- Roller, M. R., & Lavrakas, P. J. 2015. *Applied Qualitative Research Design: A Total Quality Framework Approach*. Guilford Publications.
- Sabbaghi, A. & Vaidyanathan, G. 2004. SWOT Analysis and Theory of Constraint in Information Technology Projects. *Information Systems Education Journal (ISEDJ)*, Vol. 2(23). <http://isedj.org/2/23/>. ISSN: 1545-679X. (Preliminary version appears in *The Proceedings of ISECON 2003*: §2414. ISSN: 1542-7382.)
- Salamon, L. M. 2002. *The Tools of Government: A Guide to the New Governance*. New York: Oxford University Press
- Salazar, M.K. 1990. Interviewer Bias: How It Affects Survey Research. *AAOHN Journal*, Vol. 38(12)
- Sanchawa, D.H. (2015, May 19). PSU08208: *Theoretical Approaches to Public Policy* [PowerPoint presentation]

- Saunders, M., Lewis, P., & Thornhill, A. 2000. *Research Methods for Business Students* (2nd Ed.). Essex, England: Pearson Education Limited.
- Sayed, Y. 2000. 'The Annual Meeting of the American Educational Research Association', *Post-Apartheid Educational Transformation: Policy Concerns and Approaches*. New Orleans, Louisiana, April 24-28. Reproduced: The Educational Resources Information Center (ERIC). <https://eric.ed.gov/?id=ED442177>
- Scherer, S., Wimmer, M. & Markisic, S. 2013. Bridging narrative scenario texts and formal policy modeling through conceptual policy modeling. *Artificial Inteligence Law* (2013) 21, pp. 455–484 DOI 10.1007/s10506-013-9142-2
- Schwella, E. 2001. Public Sector Policy in the New South Africa: A Critical Review. *Public Performance & Management Review*. Vol. 24(4), pp. 367-388
- Scott, W. R. 2004. "Institutional Theory." in *Encyclopedia of Social Theory*, George Ritzer, Ed. Thousand Oaks, CA: Sage. Pp. 408-14
- Selden B. & L.B. Helms 2006. *The Practice of American Public Policymaking*, Taylor & Francis Group, 2006. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/cput/detail.action?docID=1899947>
- Sharififar, M. & Rahimi, E. 2015. Critical Discourse Analysis of Political Speeches: A Case Study of Obama's and Rouhani's Speeches at UN. *Theory and Practice in Language Studies*. 5. 343. 10.17507/tpls.0502.14.
- Simons, M., Olssen, M., & Peters, M. A. (Eds.). 2009. *Re-reading Education Policies: a Handbook Studying the Policy Agenda of the 21st century*. Rotterdam [u.a]: Sense Publishers.
- Şimşit, Z.T., Günay, N.S., & Vayvay, Ö. 2014. Theory of Constraints: A Literature Review. 10th International Strategic Management Conference. *Procedia-Social and Behavioural Sciences*, Vol. 150 (2014), pp. 930 – 936, DOI: 10.1016/j.sbspro.2014.09.104. Available online at www.sciencedirect.com
- Singh, S. 2010. The South African 'Information Society', 1994-2008: Problems with Policy, Legislation, Rhetoric and Implementation. *Journal of Southern African Studies*, Vol. 36(1), pp. 209-227. Taylor & Francis, Ltd. Stable URL: <https://www.jstor.org/stable/40600240>
- Siyongwana, P.Q. & Chanza, N. 2017. Interrogating the Post-apartheid Socioeconomic Transformation in Mdantsane, Buffalo City. *GeoJournal*, 82, pp.735-750. DOI 10.1007/s10708-016-9714-2.
- Smith, T.B. 1973. The Policy implementation Process. *Policy Sciences*. Vol. 4, pp.197–209
- SA Implementation of the 2030 Agenda, 2019. Voluntary National Review (VNR) Report. Retrieved 5 February 2022 from: https://sustainabledevelopment.un.org/content/documents/23402RSA_Voluntary_National_Review_Report__9_July_2019.pdf
- Stone, D. A. 2011. *Policy Paradox: The Art of Political Decision Making*. 3rd Ed. New York: Norton.

- Subroto, A. 2012. Understanding Complexities in Public Policymaking Process through Policy Cycle Model: A System Dynamics Approach. *Universitas Indonesia, Graduate School of Management Research Paper*, (13-07).
- Sutherland, V. A.; Barnes, S.; Brawn, R., Breeze, N.; Gall, M., Matthewman, S.; Olivero, F.; Taylor, A., Triggs, P; Wishart, J. & John, P. 2004. Transforming Teaching and Learning: Embedding ICT into everyday Classroom Practices. *Journal of Computer Assisted Learning*, 20, pp.413-425.
- Sriwimon, L. & Zilli, P.J. 2017. Applying Critical Discourse Analysis as a Conceptual Framework for Investigating Gender Stereotypes in Political Media Discourse. *Kasetsart Journal of Social Sciences*. DOI: 38. 10.1016/j.kjss.2016.04.004
- Taylor, R. U. & Martindale, S. H. 2014. Alternative and Complementary Research Approaches. *The essentials of Nursing and Healthcare Research*, pp.155-174.
- The Presidency, RSA. 2020. National Policy Development Framework. Retrieved 6 March 2022 from: https://www.gov.za/sites/default/files/gcis_document/202101/national-policy-development-framework-2020.pdf
- Theodoulou, S.Z. & Kofinis, C. 2004. *The Art of the Game: Understanding American Public Policy Making*. Wadsworth/Thomson Learning. 0534529046, 9780534529048.
- Torres, B.A., Vargas L.P. & Paavola, J. 2020. The Systemic and Governmental Agendas in Presidential Attention to Climate Change in Mexico 1994–2018. *Nature Communications* 11(1), p.455. <https://doi.org/10.1038/s41467-019-14048-7>
- Trochim, W. & Donnelly, J.P. (Author) 2007. *The Research Methods Knowledge Base*, 3rd Ed.
- Turnpenny, J.R., Jordan, A.J., Benson, D. & Rayner, T. 2015: *The Tools of Policy Formulation: An introduction*. In Jordan, A.J. (Ed.) & Turnpenny, J.R. (Ed.). *The Tools of Policy Formulation: Actors, Capacities, Venues and Effects*. New Horizons in Public Policy Series, ISBN 978-1-78347-704-3, Edward Elgar Publishing, Cheltenham, <https://doi.org/10.4337/9781783477043>
- US Department of State Archive (20 January 2001 - 20 January 2009). “*The End of Apartheid*”. Retrieved 14 June 2021 from: <https://2001-2009.state.gov/r/pa/ho/time/pcw/98678.htm>
- Vandeyar, T. 2015. Policy Intermediaries and the reform of e-education in South Africa. *British Journal of Educational Technology*, 46(2), pp.344–359.
- Venter, A. & Landsberg, C. 2007. *Government and Politics in the new South Africa*. (3rd Ed.). Van Schaik Publishers. Hatfield.
- Wall, J., Stahl B., & Daynes, S. 2014. Critical Discourse Analysis as a Theory and Review Methodology. *Twentieth Americas Conference on Information Systems*, Savannah, Georgia.
- Wahlström, N. 2018. When transnational curriculum policy reaches classrooms – teaching as directed exploration, *Journal of Curriculum Studies*, 50(5), pp. 654 - 668, DOI: 10.1080/00220272.2018.1502811 <https://doi.org/10.1080/00220272.2018.1502811>

- Weaver-Hightower, M. B. 2008. An Ecology Metaphor for Educational Policy Analysis: A Call to Complexity. *Educational Researcher*, 37(3), PP.153–167.
<https://doi.org/10.3102/0013189X08318050>
- Weaver, R.K. 2015. Getting People to Behave: Research Lessons for Policy Makers. *Public Administration Review*, Vol. 75, Iss. 6, pp. 806–816. <https://doi.org/10.1111/puar.12412>
- Yin, R. K. 1994. Discovering the Future of the Case Study. *Method in Evaluation Research*. *Evaluation Practice*, 15(3), 283-290.
- Young, E. & Quinn L. 2002. *Writing Effective Public Policy Papers: A Guide to Policy Advisers in Central and Eastern Europe*, Budapest: Open Society Institute.
http://www.academia.edu/download/37299913/Writing_Effective_Public_Policy_Papers_-_Young_Quinn.pdf
- Youngman, K.J. 2009. *A Guide to Implementing the Theory of Constraints (TOC)*. Retrieved 30 August 2022 from: <https://www.dbrmfg.co.nz/Thinking%20Process%20PrT.htm>

APPENDICES

APPENDIX A: DEMOGRAPHIC IMPACT OF HIV/AIDS IN SOUTHERN AFRICA

Table A1 below (UNAIDS, 2000; International Programs Center at the U.S. Bureau of the census, 2000 in by Haacker, 2002: 5) depicts “the demographic impact of HIV/AIDS in Southern Africa at the peak of the disease”, in 1998-1999. That is in comparison to both Sub-Saharan region and the rest of the world. In the Southern Africa region, SA registered 19.9% of the adult population who were infected with HIV. That was the fourth lowest percentage out of nine Southern Africa countries. SA infection rate in the adult population was above the regional (Southern Africa) average of 19.1%. Only Mozambique and Malawi recorded averages that were below the regional average with 13.2% and 16% respectively. The Southern Africa’s average of 19.1% was strikingly high in comparison to both the Sub-Saharan region that recorded 8.6% and the rest of the world 0.2%. Due to the peak of HIV/AIDS, life expectancy in each of the nine Southern Africa’s countries incredibly fell to a record level in 1998 (see table ___ below). Of the nine countries, only Lesotho was expected to record a decrease of a single digit of 8 years, respectively, in life expectancy. That is, life expectancy of 62 years at birth with no AIDS to 54 years. Life expectancy of SAns was expected to decrease by 10 years (from 65.4 with no AIDS to 55.7). Zimbabwe was the Southern African country which was expected to experience the highest decrease of 26 years in life expectancy, from 65 years to 39 (International Programs Center (IPC) at the U.S. Bureau of the Census, 1999 in Haacker, 2002: 4). This situation is quite telling on how the region was decimated by the disease.

Table A1: The demographic impact of HIV/AIDS in Southern Africa

	Total population, 1999 (In thousands)	People living with HIV/AIDS, 1999 (In thousands)	Adult HIV prevalence rate, 1999 (In percentage)	Estimated AIDS deaths, 1999	Life expectancy at birth, 1998 (In years)	Life exp. At birth, "no AIDS", 1998
Botswana	1,592	290	35.8	24,000	40.1	61.5
Lesotho	2,108	240	23.6	16,000	54	62
Malawi	10,674	800	16	70,000	36.6	51.1
Mozambique	19,222	1,200	13.2	98,000
Namibia	1,689	160	19.5	18,000	41.5	65.3
South Africa	39,796	4,200	19.9	250,000	55.7	65.4
Swaziland	981	130	25.3	7,100	38.5	58.1
Zambia	8,974	870	20	99,000	37.1	56.2
Zimbabwe	11,509	1,500	25.1	160,000	39.2	64.9
Southern Africa	96,545	9,390	19.1	742,100
Sub-Saharan Africa	596,272	24,500	8.6	2,200,000
Global total (excl. sub-Saharan Africa)	5,362,577	9,800	0.2	600,000

Data sources: UNAIDS (2000) for column 1-4, and International Programs Center at the U.S. Bureau of the Census (1999) in Haacker (2002: 4)

With regard to the rate of mortality, the census by the IPC revealed that the situation was dire in the Southern Africa as HIV/AIDS mortality rates affected mainly “... the working age population” (p.5), thereby a direct correlation with the decline in the population growth. This seems to corroborate with the study by Bachmann and Booyen (2001: 3) that found that HIV/AIDS in the Southern Africa affected largely the poor, including those with low income, living in the rural areas.

Looking at the impact of AIDS on the education sector in South Africa, Johnson (2000) established that even though the disease was at its peak, there was expectation that learner numbers were to decrease instantly as a result of the disease. Yet, "... a large number of teachers" were "likely to become ill and die of AIDS" between year "2000 and 2010" (p.4). Thereby, not only, posing a risk of an eminent teacher-shortage (demand and supply) with all the negative consequences that were to arise from such situation but also the risk of completely paralysing further the education system that was under reconstruction (Haacker, 2002; Louw et al. 2009). That is notwithstanding other enormous socioeconomic challenges that the education system was already contending with, including, though not limited to, the tedious effort of establishing a single education—as opposed to the apartheid fragmented education systems—, the change in curriculum offering and much more (Louw et al. *ibid.*; Gumede & Biyase, 2016).

APPENDIX B: RESEARCH PHILOSOPHIES/ PARADIGMS

B1: Research Philosophies/ Paradigms

McGregor and Murname (2010: 419) define a paradigm as "... a set of assumptions, concepts, values, and practices that constitutes a way of viewing reality for the community that shares them, especially in an intellectual discipline". It is a philosophical way of looking or thinking about something/ life. In a sense that philosophy is defined as "... a group of theories and ideas related to the understanding of a particular subject but also as ... a particular system of beliefs, values, and principles" (*The online Cambridge dictionary*). In other words, philosophy/ paradigm is the beliefs or principles that one's holds with regard to the understanding and judgement of the nature of the world, its existence and the search for knowledge, including what it represents.

Basing their analysis on the work of Burrell and Morgan (1979), Cohen et al. (2007: 7-8) classify these assumptions, concepts, beliefs, values and practices into: (a) "assumptions of ontological kind" which are concerned with the nature of reality and the world; (b) "assumptions of epistemological kind", which are concerned with the nature of knowledge, how it can be acquired and communicated; and (c) assumptions about the relationship between human being and the environment. Paradigms emerge from these assumptions. They (paradigms) are distinguished on how people perceive reality and the world, do they perceive it as a material object that exists out there and imposes itself on their conscious, thereby having its own existence? Or they perceive it as something of their making, a product of their conscious and imagination which cannot be detached from them. Ontologically, those who holds the former view (objectivity and independent nature of reality) are classified as proponents of positivistic paradigm while the latter or those who hold the contrasting views are classified as adherents to anti/ post-positivistic paradigm. Paradigms are further distinguished on the basis of how knowledge is perceived (epistemology). That is, what assumptions and beliefs people hold about knowledge? Does knowledge constitute a tangible or palpable something that is out there and can be discovered? Or it is of intangible and subjective nature that can be constructed? Once again the perception of knowledge either as a discoverable

object suggests a subscription to positivistic paradigm; while perceiving knowledge as personal, subjective or unique substance that cannot be discovered out there but can be constructed points to the adherence to post-positivistic paradigm. Finally, paradigms are distinguished on the basis of how people perceive their relationship with the environment, thereby their position in the conduct of research (axiology), in a sense of assessing the researcher's own values and ethics and how they relate to those of participants to the research. Does the researcher perceive oneself as a product and controllable material of the environment, in such a way he/she can be an object and subject of research? Or he/ she perceives him/ herself as an actor and creator of his/ her own environment, thereby active contributor to the research? The subscription to the latter axiological assumptions and beliefs (products and controllable materials of the environment) depicts of a positivistic research paradigm while the latter (actor and creator of his/ her own environment) depict post-positivistic axiological paradigm.

McGregor and Murname (2010) contend that from these paradigms arise different research methodologies which are characterised by the philosophical underpinnings of the paradigm. That is characterisation from ontological, epistemological and axiological principles that constitute a paradigm and consequently the research methods. Thus the already alluded to contention by McGregor and Murname (ibid) postulating that "...term paradigm encompass two dimensions: (a) philosophical, basic beliefs and assumption about the world; and, (b) technical, the methods and techniques adopted when conducting research". Yet, methodology itself is informed by the research question and the anticipated type of data, combined with the researcher's philosophical stance that, knowingly or unknowingly influenced the manner in which research question was formulated. The following sections provide more details on the two research paradigms and their associated methodologies and methods, to the extent possible:

B1.1 Positivistic Research Paradigm

Knowledge's validity and integrity viewed from the lens of positivistic paradigm can only be the result of scientific methods. In other words, the determination of the trueness nature of any research's generated knowledge can only be on the basis of evidence arising from experiments or/ and observation of a phenomenon. This is upon testing of provisional idea, referred to as a hypothesis (Rohmann, 1999 in McGregor & Murname, ibid.). Proponents of Positivistic paradigm believe that there is no difference between social sciences and natural sciences; thus their interest in the "...discovery of natural and universal laws that regulate and determine individual and social behaviour" (Cohen et al., 2007:7). They firmly hold a machine-driven view that searches the patterns of fact in anything that is considered as knowledge. A positivist researcher can, in this context, be referred to as an objectivist, someone who does not compromise on the measurability and predictability of the sought truth and perceives reality as an independent entity that through hypothesis and theory can be tested (Saunders, et al., 2000; MacGregor & Murname, 2010).

Positivists insist and strongly believe in the “value-free” objectivity of research in order to avoid any biasness that might emanate from the researcher and distorts the research finding. It is in this context that human being are equated to objects that can be “studied and controlled while the real world of lived experiences” does not count (MacGregor & Murname, *ibid*: 423). Cohen and Crabtree (2006) posit that, the *representational epistemology* of positivistic beliefs is that human beings can be in the know of this reality and use symbols to accurately describe and explain the said objective reality. While reality, through the lens of the *realist ontology*, is, clearly, perceived as being a separate entity from human beings’ knowledge of reality. Because reality is an entity that exists out there which can be altered, it makes perfect sense that any research findings can only be compared to that reality that is there in order to confirm or reject findings’ veracity and credibility (Cohen & Crabtree, 2006). The fact that positivistic research approach solely consider valid and credible knowledge only on the basis of verifiable evidence obtained through experiment or observation, such beliefs system can only lead to empirical research methodology. Yet this approach or research methodology is likely to dictate the use of traditional approach and methods to research that, respectively, include a quantitative approach to research and methods such as “surveys, experiments, and the like”. This does not suggest any exclusivity to quantitative approach to research as both, quantitative-qualitative (mix) approaches can be used in tandem (Cohen et al., 2007: 8).

B1.2 Post-Positivistic Research Paradigm

As already mentioned, there may be more than two research paradigms but these many can be classified into two overarching paradigms. They include positivistic paradigm, also referred to as scientific paradigm, and all others that deny or oppose the positivistic view point. The latter are referred to as anti/post-positivistic research paradigm (McGregor & Murname, 2010; Cohen et al., 2007). The opposition to the positivistic paradigm should not be construed as a refutation of the scientific method to generate knowledge. The opposition is against the positivistic claim that the scientific method is the only way of generating knowledge. Fink (2000: 2) believes that the rise of post-positivism paradigm became evident due to the growing need to unearth deep—often hidden—meaning structures, to encompass the idea of truth in society and to accept the fact that scientists too are exponents of dominating beliefs in society”. The contention by Post-positivistic paradigm is that besides the scientific method to generate knowledge, there are other trustworthy and credible way to do so (McGregor & Murname, 2010). The paradigm, further, opposes positivist’s subscription to the beliefs that research should be “value-free” to avoid researcher’s interference and distortion of the research findings. In the contrary post-positivistic research paradigm perceives research as an exercise that cannot be disassociated with the researcher, thus research cannot be “value free”, instead it should be “value-laden, subjective and inter-subjective” (McGregor & Murname, *ibid*: 424). It opposes positivistic beliefs and assumption that portray human being as object for research that can be studied and controlled. For the post-positivistic

research paradigm, human being, including both the researcher and the participants to a study, are viewed as imperatives to the research for the benefit of the research but also for self-benefit and growth. In other words, according to Cohen and Crabtree (2006), the relationship between the researcher and the object of his/ her research is of such a nature that the two are intertwined to the extent that the researcher' understanding of the world is a central part of how he/ she understands him/herself, others and the world at large. Human being are viewed as different. Not only, from objects but also from each other, making each one of them unique. On this ground, human being cannot be regulated and pre-determined. Instead they can be described and explained, they are able to participate in knowledge construction, and reality for them is complex and multi-layered. Because of their uniqueness they cannot generalize. This, however, does not suggest that post-positivistic research paradigm does not subscribe to the notion of research rigour as construed by positivistic research approach (Cohen et al., 2007; Guba & Lincoln, 1994). McGregor and Murnane (2010: 424) mention the fact that research that are anchored by the post-positivistic beliefs and assumptions seeks to uncover "meaning and/ or power in specific cultural and social contexts rather than for general laws applicable to everything and everyone" thus the active participation of researcher and the participants to the research. Unlike the positivistic view of conducting research underpinned by empirical research methodology, post-positivistic views are anchored in interpretive and critical methodologies on the basis that the focus of the research is on "... explanation and understanding of the unique and particular individual case rather than the general and the universal". Thus the alignment with qualitative approach to research, though not exclusive. Yet interpretive/ critical methodology, with a qualitative approach to research dictates, in the main, the use of qualitative methods that include, amongst others, interviews for data collection (Cohen et al., 2007: 8; Fink, *ibid*; McGregor & Murnane, *ibid*.).

APPENDIX C: RESEARCH DESIGN

C.1 Exploratory research Design

Exploratory research design is suited for studies that almost have no earlier studies to serve as reference. These are the type of studies that provide initial clues on a problem or unit of research that will require a follow through research, in a form of a descriptive or/ and explanatory study. This is due to the fact that exploratory studies do not provide conclusive results (Saunders et al., 2007). Their concerns is to explore problems that are yet to be studied or those that are yet to generate sufficient knowledge out there.

C.2 Descriptive research Design

A descriptive study is one that limits its concern to just describing the phenomenon/ unit of study. That is defining or painting a picture of the phenomenon, to the extent of describing existing relationships (Lelissa, 2018). De Vaus (2001: 1) cautions against simplistic dismissal or looking down upon descriptive studies as it has been the case with some fellows. He outlines the fact that

descriptive studies have contributed a lot to the research endeavour as “it has added immeasurably” to human knowledge and understanding of the shape and the nature of the society. He highlights the fact that sometimes the criticism against descriptive research design is justified and this is due to the quality of some descriptive studies out there. These are studies that fail to provoke the “why” question which is tackled by either the same research (in view of what it sought to address) or it left to any other future study. It is, in fact, the “why” question that calls for a different type of research design; that is the explanatory research design.

C.3 Explanatory research Design

As already mentioned, the “why” question triggered by a good descriptive research is, naturally, dealt with by the explanatory research design (De Vaus, 2001). In other words, an explanatory research design is very much concerned with providing reasons or/ and explanation for an occurrence that has been well described by a descriptive or/ and an exploratory research. It is in this context that explanatory research is usually dependent on the quality of descriptive and/ or exploratory research. This, to the extent that theories that may arise from such research (explanatory) could be flawed as a result of descriptive/ exploratory research that were ill described/ explored. As expected when the “why”, or “how” questions are asked, the expectation is that the answer should provide a certain explanation whose content can be backed by evidence. De Vaus (2001) contends that the answer to a “why” question presupposes a relationship between two variables or a “causal explanation” (p2). The same applies to the “how” question, such as in the case of this study where the “what” (descriptive) question is followed by the “how” question (explanatory). Thereby creating a relationship between the description led by the “what question” and the explanation resulting from the “how question” (this will be further elaborated in the next section that speaks to the research design chosen for this study and why).

APPENDIX D: SAMPLES OF ATLAS.TI GENERATED NETWORKS

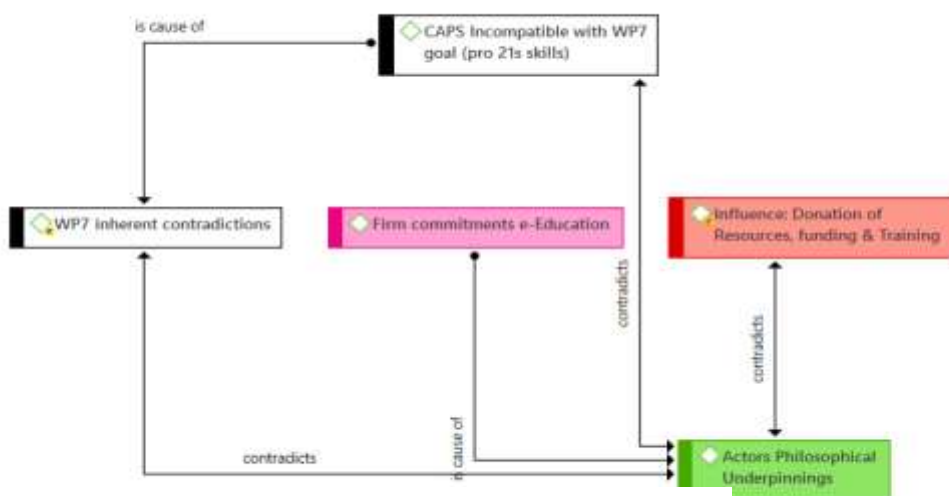


Figure D.1: Policy actors' philosophical underpinnings

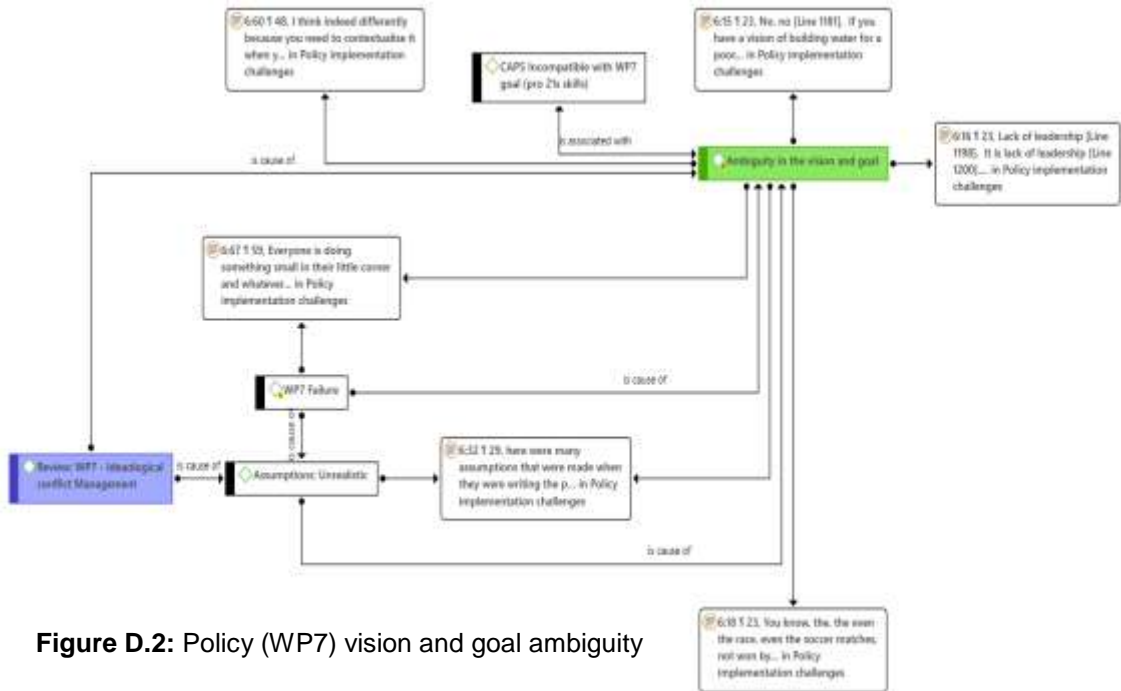


Figure D.2: Policy (WP7) vision and goal ambiguity

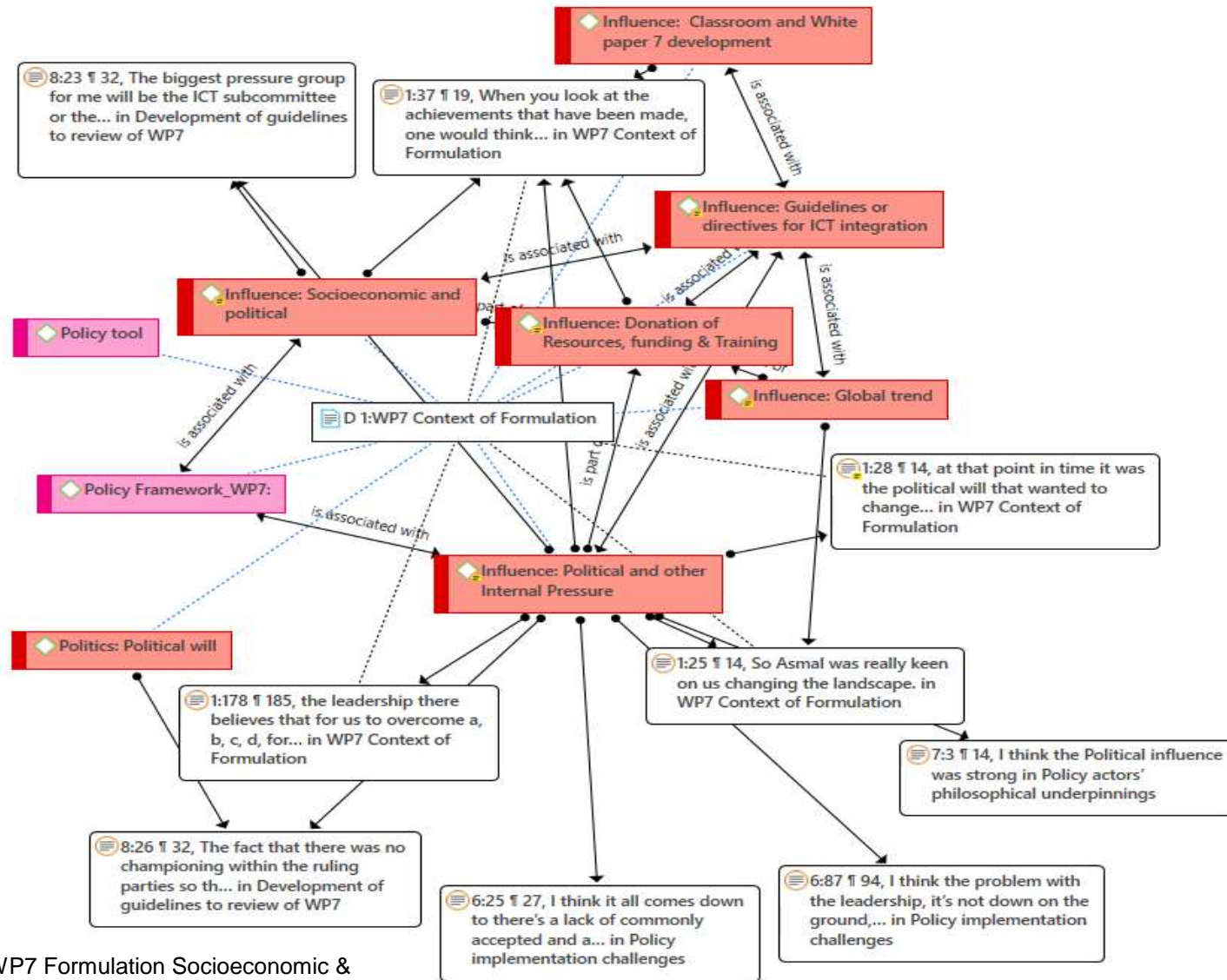


Figure D.3: WP7 Formulation Socioeconomic & Political Factors

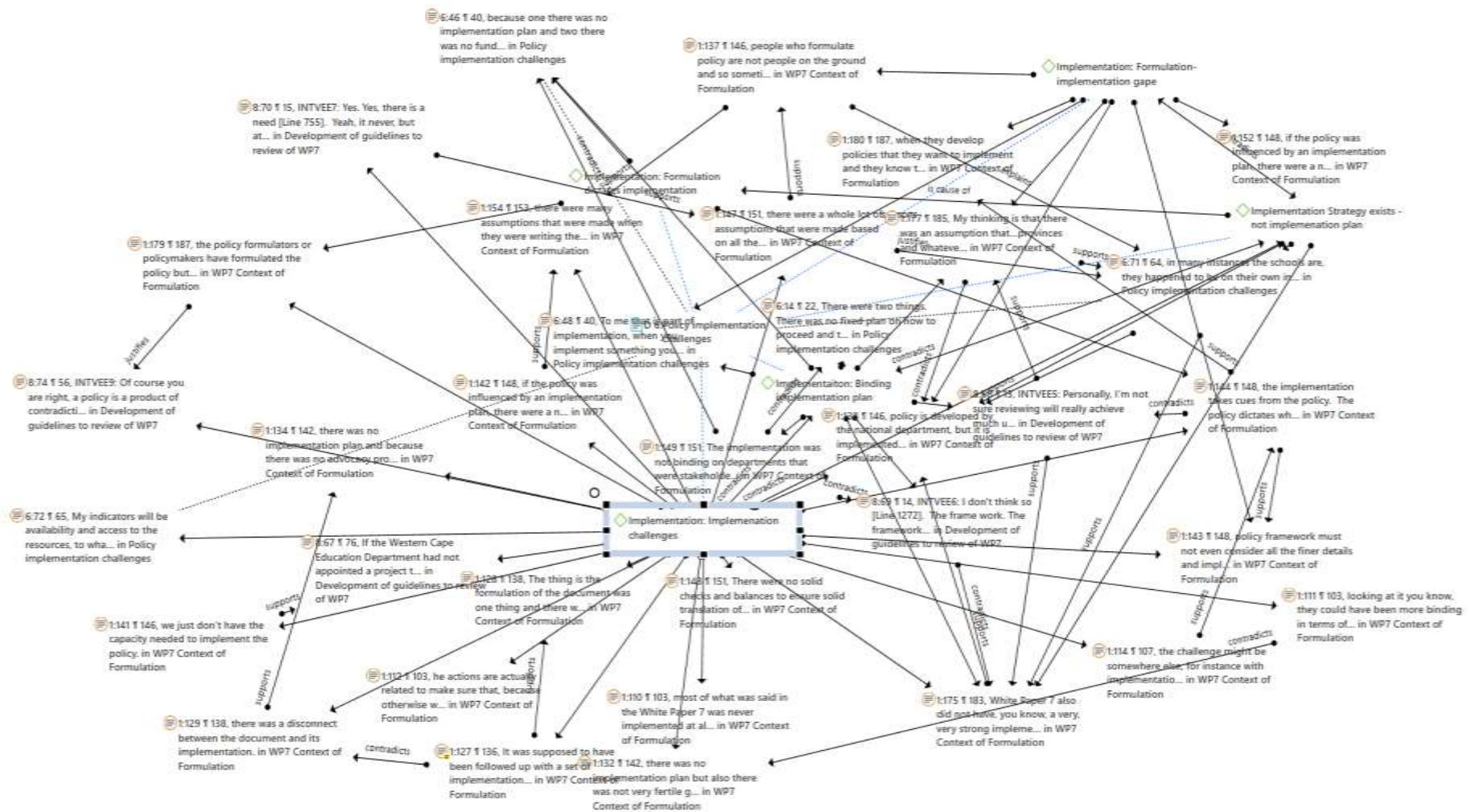


Figure D.4: WP7 Implementation Reality

APPENDIX E: WP7 MILESTONES AND PERFORMANCE ASSESSMENT INSTRUMENT

In a scale of 1 to 4 as described by the following scale descriptive table (table 1), assess the performance of WP7 milestones contained in tables E.2 to E.4 below:

Table E.1: Scale descriptive for the assessments of tables' E.2 to E.4

Scale	Description
0	Not Implemented
1	Less than a Quarter Implemented
2	Less than Half Implemented but more than a quarter)
3	Partially Implemented (50% implementation)
4	Fully Implemented

Table E.2: WP7 Phase I of Planning Cycle – 2004 to 2007

	PROVINCIAL EDUCATION DEPARTMENT								
	GP DoE	WC DoE	NC DoE	EC DoE	MP DoE	NW DoE	FS DoE	KZN DoE	LP DoE
Theme 1: BUILD AN EDUCATION AND TRAINING SYSTEM TO SUPPORT ICT INTEGRATION IN TEACHING AND LEARNING									
Dedicated expertise is appointed and developed at different levels of the system for the planning, management, support, monitoring and evaluation of ICTs.									
Ongoing support to managers is provided at different levels of the system.									
Provinces are collaborating and pool ICT resources where appropriate.									
Theme 2: BUILD TEACHERS' AND MANAGERS' CONFIDENCE IN THE USE OF ICTs									
Every teacher and manager has the means to obtain a personal computer for personal use, administration and preparation of lessons.									
Every teacher and manager has access to basic training in the use of ICTs.									
Technology incentives for institutions and teachers to use ICTs are installed through the "Most Improved Schools Award" programme and other schemes.									
A set of case studies and examples is available to teachers and managers on how to integrate ICTs in management, teaching and learning.									
Theme 3: BUILD A FRAMEWORK FOR COMPETENCIES FOR TEACHER DEVELOPMENT IN THE INTEGRATION OF ICTs INTO THE CURRICULUM									

Norms and Standards for Educators are revised to include ICT use and integration.									
All pre-service teacher training in higher education institutions includes basic ICT literacy and basic ICT integration into teaching and learning.									
Teachers have access to in-service training on how to integrate ICTs into teaching and learning.									
Teachers have access to ICT technical support training.									
Institutional managers have access to in-service training on how to integrate ICTs in management and administration.									
Provincial managers are trained in ICT integration to offer support to institutions.									
Theme 4: ESTABLISH AN ICT PRESENCE IN INSTITUTIONS									
Every institution has a computer and software for administrative purposes.									
50% of all institutions have access to a networked computer facility for teaching and learning.									
All of the above institutions have legal software and use the software.									
ICT facilities are being used effectively to facilitate ICT integration into teaching and learning.									
ICT facilities are safe.									
Theme 5: INSTITUTIONS ARE CONNECTED, ACCESS THE INTERNET AND COMMUNICATE ELECTRONICALLY									
50% of institutions are connected to the Educational Network.									
Networks are safe and information security is monitored.									
Institutions use electronic means to communicate with provincial offices.									
All institutions have access to an e-Rate.									
Theme 6: COMMUNITIES SUPPORT ICT FACILITIES									
SMMEs are developed and trained to provide technical support to institutions.									
Communities have access to ICT facilities and services, and in return provide assistance in sustainability of the intervention.									

Table E.3: WP7 Phase II of Planning Cycle – 2007 to 2010

	PROVINCIAL EDUCATION DEPARTMENT									
	GP DoE	WC DoE	NC DoE	EC DoE	MP DoE	NW DoE	FS DoE	KZN DoE	LP DoE	
Theme 1: TEACHERS AND MANAGERS INTEGRATE ICTs INTO MANAGEMENT AND CURRICULUM										
50% of teachers are trained in basic ICT integration into teaching and learning										
Teachers have access to ICT technical support training										
80% of institution managers integrate ICTs in management and administration										
Provinces support ICT integration into the curriculum										
Research and evaluation inform developments and directions in ICT integration										

Theme 2: ICTs ARE WIDELY PRESENT IN INSTITUTIONS									
80% of all institutions have access to a networked computer facility for teaching and learning									
All of the above institutions have use legal software									
ICT facilities are safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition									
All institutions with ICT facilities have a dedicated teacher to manage the facility and to champion the use of ICTs in the institution									
Theme 3: INSTITUTIONS ARE USING EDUCATION CONTENT OF HIGH QUALITY									
The Educational Portal "Thutong" provides access to resources in all learning areas in GET and all subjects in FET									
Institutions use the Educational Portal to communicate, collaborate and access content resources									
Institutions have access to digital libraries									
Teachers are producing digital content of high quality and making it available to other teachers									
Theme 4: INSTITUTIONS ARE CONNECTED, ACCESS THE INTERNET AND COMMUNICATE ELECTRONICALLY									
All institutions are connected to the Educational Network									
Networks are safe and information security is monitored									
Institutions use electronic means to communicate with provincial offices									
All institutions have access to an e-Rate									
Theme 5: COMMUNITIES SUPPORT ICT FACILITIES									
SMMEs provide technical support to institutions									
Community involvement supports institutions to sustain ICT facilities									

Table E.4: WP7 Phase III of Planning Cycle – 2010 to 2013

	PROVINCIAL EDUCATION DEPARTMENT								
	GP DoE	WC DoE	NC DoE	EC DoE	MP DoE	NW DoE	FS DoE	KZN DoE	LP DoE
ICTs INTEGRATED AT ALL LEVELS OF THE EDUCATION SYSTEM - MANAGEMENT, TEACHING, LEARNING AND ADMINISTRATION									
All departments of education use ICTs seamlessly in planning, management, communication and monitoring and evaluation									
All learners and teachers are ICT capable									
ICTs are integrated into teaching and learning in all institutions									
All teachers integrate ICTs into the curriculum									
All institutions have access to a networked computer facility for teaching and learning that is safe, effective, designed to facilitate ICT integration into teaching and learning, and in working condition									
All institutions use educational software of high quality									
All institutions use the Educational Portal for teaching and learning in an outcomes-based education fashion									
Communities are integrally involved in e-institutions									
ICT interventions are informed by research									

Table E.5: Assessing the substantive elements of the PAP

QN	Question	Answer	
1.	What was the legal base that underpinned the formulation of WP7 (legislation, regulation, guidelines, etc.)?		
	1.1	How did the legal bases set the ground for smooth implementation?	
	1.2	What legal cover did WP7 envisage for the protection of the policy beneficiaries?	
	1.3	Is there any ground for the review of the current legal framework of WP7? If so, why?	
2.	What policy problem WP7 aimed at addressing? And Why?		
	2.1	In a scale of 1 to 3 (where 1 stands for complete lack of clarity, 2 stands for somewhat 3 stands for very clear) rate the clarity of WP7 policy problem	
	2.2	How does the policy problem relate or find expression in the policy goal?	
3.	How clear and unambiguous the policy (WP7) goal is?		
	3.1	How does it (policy goal) embody the desired state of affairs that the policy aimed at?	
	3.2	To what extent the attainment of the policy objectives guaranteed the attainment of the policy goal?	
4.	How specific, measurable, achievable, attributable, relevant, and realistic and timebound WP7 policy objectives were?		
	4.1	To what extent are WP7's objectives, goal and vision are still relevant today? (To the extent that if the policy has to be reviewed and reformulated they can be kept intact or changed?)	
	4.2	To what extent were WP7's set objectives realistic and commensurate to the policy timeframe and available assigned resources, including human resources?	
5.	What were/ are the evaluative mechanisms (set parameters for evaluating WP7 effectiveness, efficiency, relevancy and impactful) that were put in place the evaluation of WP7 effectiveness, efficiency and relevancy		
6	To what extent were the target groups and both the hypothesis of causality and intervention hypothesis correctly and equally identified in WP7?		

Table E.6: Assessing the procedural elements of the PAP

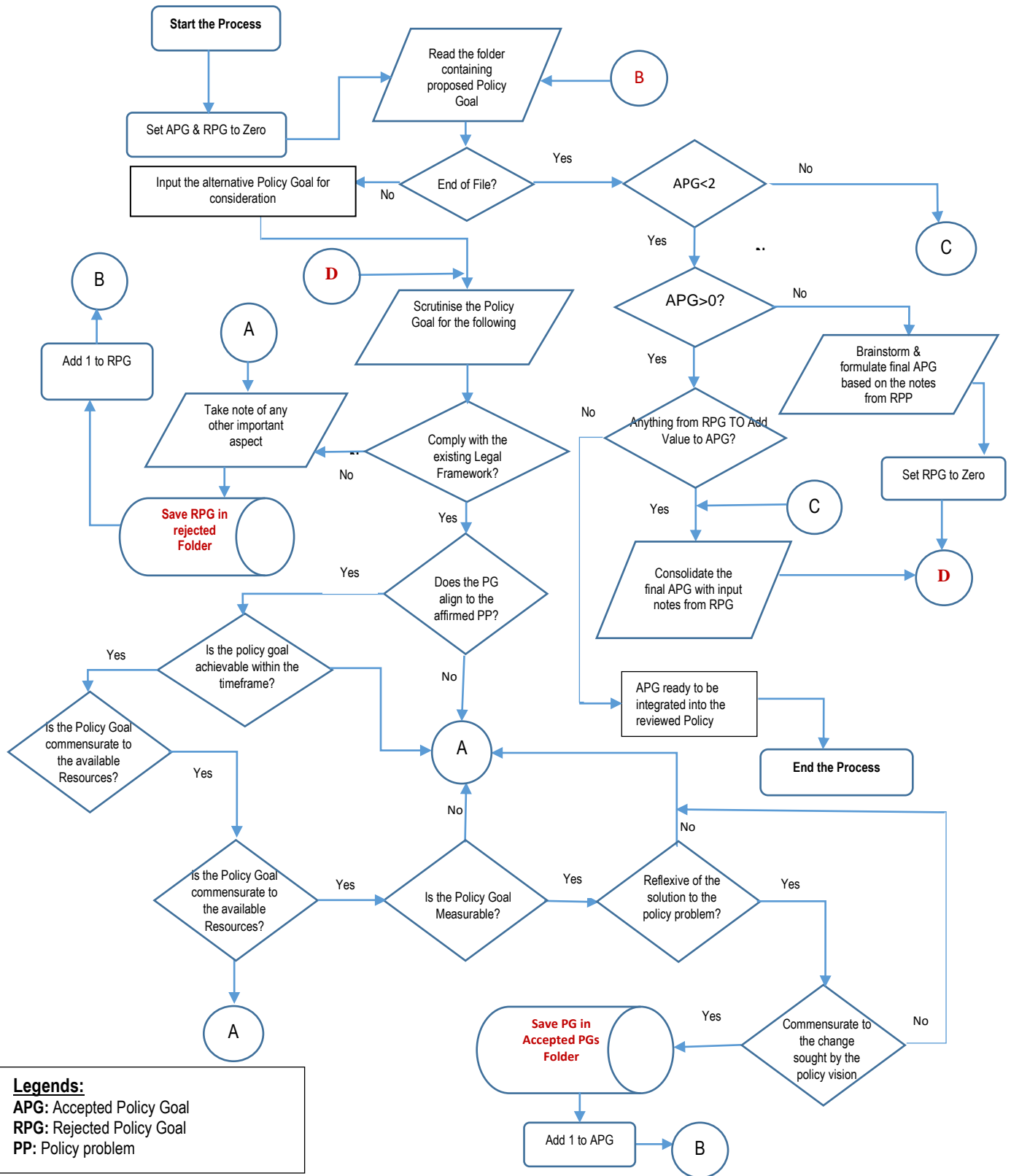
QN	Question	Answer	
1.	Were there established rules and guidelines for the selection of WP7 formulation actors?		
	1.1	How inclusive the rules and guidelines were and what informed such inclusivity, if any?	
	1.2	Who were the key WP7 formulation actors? (Identify and categorise them, i.e. public actors, target groups, etc.).	
	1.3	Who were the potential public and/or private key actors that were left out, if any?	
	1.4	To what extent were the roles and responsibilities of WP7 actors clearly defined and well delineated? (What were these for each of the grouping of actors)?	
	1.5	To what extent were there established rules and guidelines for the selected actors to mitigate potential power domination? (What were these rules and guidelines)?	
2.	Was a cost analysis of WP7 implementation conducted? YES/NO (what were the results of this analysis)		
	2.1	How did WP7 implementation budget find expression in both the National and provincial departments' budget allocation?	
	2.2	To what extent was such budget allocation reliable and sustainable and commensurate to the objectives and goal throughout the lifespan of WP7 (2004 – 2013) of the policy (WP7)?	
	2.3	What were different sources of funding of WP7 and how were they secured?	
3.	How the formulation of WP7 was politically and institutionally supported? And		

	what was the degree of such political support, if any? (E.g. was it translated into the official institutions of the ruling party?)	
4.	Was the formulation of WP7 supported through meaningful participation or involvement by other government departments and/ or State Owned Enterprises (SOEs)?	
	4.1 If so, what were those departments/ SOEs?	
	4.2 How was the involvement/ participation and what interest these departments/ SOEs pursued?	
	4.3 Did such involvement/ participation include legally binding commitments, to the extent of finding expression into their respective annual action plans, etc.?	
5.	Was the formulation of WP7 supported through meaningful participation or involvement by private actors (including private individuals and institutions)?	
	5.1 If so, what were those private actors?	
	5.2 How their involvement / participation was and what interest did they pursue?	
	5.3 Did such involvement/ participation include legally binding commitments made?	
6.	How the formulation of WP7 did trigger the establishment, at National and Provincial levels, of administrative bodies for both the implementation and the monitoring and evaluation?	
	6.1 How were these administrative bodies structured? (to the extent of having some common features and similar line functions across provinces given the commonality of the policy objectives and goal)	
	6.2 Were these structures adequately capacitated, including human capital and financial resources, to fulfil the mandate)?	
7.	To what extent did WP7 find expression in the broader departmental plan (such as in “Action plan 2024: towards the realisation of schooling 2030”, etc.)?	

Table E.7: Assessing the effectiveness of WP7- PAA lens

QN	Question	Answer
	How healthy was the relationship between the political structure within the DoE and the administration of the time of WP7 formulation and to what extent such relationship benefited the formulation and implementation of WP7?	
1.	What connections or relationships existed between and among the identified target groups and the implementing agents, both within government and outside?	
	1.1 What was the nature of the relationships between above-mentioned stakeholders?	
2.	In line with the policy goal, how the identification of target groups unfolded and to what extent all potential target groups were identified?	
	2.1 What potential risk existed in the case of some target group members not being identified as such?	
	2.2 How the identified target groups were the cause of the policy problem?	
2.	What type of motivations (i.e. incentives) were planned to entice the change of behaviour of target group in favour of the attainment of the policy goal? (extent to which these were attractive enough and capable of triggering target groups' change of behaviour);	
3.	What measures were in place to: (a) ensure balanced participation of policy actors, especially private actors, (b) curb any excessive influences, especially from private actors or provinces with financial muscles?	

APPENDIX F: FLOWCHART – AFFIRMATION OF THE POLICY GOAL



Flowchart F1: Affirmation of the Policy Goal

APPENDIX G: ETHICAL CONSIDERATIONS

G1: Application for ethical clearance certificate



FACULTY OF EDUCATION

RESEARCH ETHICS APPLICATION FORM

This form is to be completed by students, staff members and other researchers intending to undertake research in the Faculty. It is to be completed for any piece of research the aim of which is to make an original contribution to the public body of knowledge.

Please note:

- Complete the application form and submit as a PDF document – no handwritten forms will be accepted.
- All attachments requested in the application form are to be included in this document – your email submission should include **one PDF** attachment of the application form and **one Word** attachment of the accompanying certificate template with part 1 completed by the applicant.
- Your surname must appear at the beginning of the file name, e.g. SMITH Ethics application

1 Applicant and project details

Name(s) of applicant(s):	KABEYA TSHIMANIKA (MR)
Project/study Title:	GUIDELINES FOR REVIEW AND RE-FORMULATION OF THE SOUTH AFRICAN WHITE PAPER ON E-EDUCATION
Is this a staff research project, i.e. not for degree purposes?	NO
If for degree purposes the degree is indicated:	DOCTOR OF EDUCATION
If for degree purposes, has the proposal been approved by the FRC?	YES
Funding sources:	

2 Abstract of study

The advent of democracy in South Africa, in 1994, promised a better life for all and Education was and, still is viewed as a tool for liberation and an imperative instrument for the realisation of that better life for all. It is for this reason that the radical and transformative policies in education that were enacted right after the advent of democracy (Bengu, 1998 in Sayed & Jansen, 2001) seem to have also been grounded on the liberation theories. Policies and especially education policies enacted right after the advent of democracy in South Africa

portray how government perceives education and how it intends altering, reimagining and reshaping it (Education). The South African e-Education policy, also referred to as White paper 7 (WP7) published in 2004, is one of those transformative and foundational policies that were enacted during that period and sought to transform education in South Africa through the integration of Information and Communication Technology (ICT).

The goal of WP7 (“...every South African learner in the general and further education and training bands was to be ICT capable⁶) was to be achieved in 2013 and this was to be made possible upon the achievement of the policy’s six strategic objectives. More than fifteen years since the commencement of the WP7’s implementation, it is arguably accepted that WP7 has failed to attain its strategic objectives, thereby its policy goal. Causes of this arguably failure are well-researched and varied. Most of them, though not the only, point to teachers’ lack of ICT skills, interest, enthusiasm, and lack of policy direction (Blignaut & Howie 2009; Vandeyar, 2015; Padayachee 2017; Guest, 2014; Chigona, 2017). Regardless of the implementation, to some extent, of previous studies’ recommendations, the achievement of the policy goal has remained elusive.

It is in this context that this study turns its attention to the policy itself, thus its interest in critically examines WP7 with a view to unravelling the economic, sociocultural and political context in which it was conceptualized. The scrutiny of the policy itself is informed by the fact that policies themselves, regardless of higher level negotiations’ art that goes into their formulation, are always inherent of contradictions and tensions that can hinder or promote their implementation. This study, therefore, aims at developing guidelines for the review and reformulation of the South African White paper on e-Education, also referred to as White Paper 7 (WP7). The development of guidelines for the review and reformulation of WP7 will be informed by a thorough understanding of the socio-economic, cultural and political circumstances that prevailed during WP7 formulation and how these could have impacted or affected the policy implementation.

A two-pronged data collection approach will be used. It will include:

- (a) **“Document Analysis”** that will focus mainly on the unit of analysis of the study which is White paper 7. Further to analysing WP7, as the unit of analysis of the study, the following other documents will be analysed as well:
 - Memos, discussion documents and other relevant correspondences that preceded the publication of White paper 7. This will assist in unearthing contradictions and tensions that might be embedded in the policy and could be contributing positively or negatively to the policy implementation; and
 - Two documents (Guideline for teacher professional development in ICT and digital framework for teacher professional development) that are the results of White paper 7 will be analysed;
- (b) **“In-depth Semi-structure and open-ended interviews”** will be conducted, both, with key actors that contributed to the formulation of White paper 7 (from its agenda setting to its formulation). These key actors or participants to the study will be identified from both the National and Provincial levels of the Education Departments. Also included to the participants’ list will be relevant officials from some Non-Governmental organizations, such as SchoolNet and the National Education Collaboration Trust (NECT) that have been involved in the implementation of the policy, from its inception to date.

⁶ Where ICT capable means be able to “... use ICTs confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community”.

Participation in the study is voluntary and participants may withdraw at any time without consequences of any kind. Projected in-depth interviews with relevant officials will be scheduled and organized in a manner that will be of no disruption, nor any intrusion to the productivity the officials. The researcher will abide to the terms and conditions that will be imposed on him in view of avoiding any disruption to the functioning of the Departments or the organizations involved.

The contribution of this study to the body of knowledge is two fold:

- (a) This study will provide critical Policy learning that could add value in the crafting of new policy implementation strategy without which the attainment of the policy's (WP7) set objectives and goal, by the new policy time frame, 2030, will remain elusive;
- (b) The study will, as well, culminate in the development of guidelines for the review of WP7, in view of the study's unravelled inherent policy contradictions and tensions. It is anticipated that the application of these guidelines will lead, not only, to better policies in future but also to better and purposeful policy implementation

3. Ethical considerations specific to the intended study/project

Provide explicit and concise answers to the following questions:

3.1 Sampling: How will you recruit participants? Is there any possibility that participants might feel coerced to take part and if so how can you manage this issue?

3.1.1 Sampling: How will you recruit participants?

Participants will be recruited based on their involvement in the formulation of White Paper 7 (from its problem identification, agenda setting to its formulation) and their participation in the implementation thereof. Leads criteria for recruitment selection will include:

- (a) *The identification/ compilation of the list of key Departmental (National (DoE) and Provincial Departments) officials (during the years —2000-2004— that preceded the formulation of WP7), at the level of influence, that could have played a role in the formulation of WP7;*
- (b) *The list will then be assessed or analysed, in view of the function of the officials, in order to determine those who, in virtue of their functions and responsibilities, could have played a role in, both, the formulation of the policy and its implementation thereof;*
- (c) *Once identified, as the result of the assessment referred to in point (b) above, official correspondences will be written and addressed to potential participants requesting them to participate in the study and complete the attached consent form. Attached to the correspondence will be:*

— **An information sheet** explaining the study and what it seeks to achieve, including its potential contribution to the body of knowledge and furthermore outlining clearly all ethical considerations pertaining to the participation in the study. This will include, amongst others, the fact that the participation is on voluntary basis and one can withdraw his/ her participation any time one wishes to do so without being compelled to provide any explanation.

— **A consent form** that will be filled or completed by the participant. It is through this form that the participant will indicate his/ her willingness or unwillingness to partake to the research

While participation to the study in relation to "policy implementation" will be confined to Gauteng and Western Education Departments (due to the richness of data that is expected to emanate from the two Provinces), participation pertaining to "policy formulation" will be wide open, as it will be based on one's contribution to policy formulation. This is regardless of whether the official worked for National or any Provincial Department.

Also to be included, as participants to the study, will be other stakeholders who might have contributed in policy formulation, and have or are playing a prominent role in the implementation of the Policy. They include, stakeholders or organisations such as SchoolNet and the National Education Collaboration Trust (NECT). While SchoolNet is mentioned in WP7, NECT has been, of late, instrumental in the policy implementation. The recruitment model will follow the same pattern as described above.

3.1.2 Is there any possibility that participants might feel coerced to take part and if so how can you manage this issue?

No participants' coercing possibility is envisaged or forecast in this study.

3.2 How will participants be made aware of what is involved in the research [prior to, during and after data collection]?

All participants will be informed through official correspondences addressed to them by the researcher upon getting ethical clearance from their respective organizations.

- *They will be requested to fill a consent form indicating their willingness to partake to the research or not.*
- *The consent form, as alluded to in the previous section (3.1.1), will be accompanied with an information sheet that will provide clear and detailed information about the research.*
- *The information sheet will, amongst others, provide the purpose of the research, and its contribution to the body of knowledge. This will be in addition to outlining, in clear and uncertain manner, all ethical issues related to the research, such as the issue of participation being on voluntary basis and one can withdraw, without any consequences whatsoever, at any time one wishes to.*

Furthermore, the researcher undertakes to keep both participants and their respective organization abreast of progress and relevant information of the study. In addition, through "member-checking" participants will be provided with transcripts of their individual interviews in order to either provide further inputs or submission and correct or adjust any section of the interview that might have misrepresented. Regardless of having consented to partake to the research by indicating such through the consent form, each participant will be asked, prior to the commencement of each interview, whether he/ she is still willing to participate in the research.

3.3 How will you ensure that participants really do understand their rights

Signed consent will be obtained from each participant in this research, which consent will be signed after being abreast of the research through the information sheet;

All participants will be informed of the study's aim, objectives, methods, what kind of data will be collected and how the data will be used, as well as implications of the research. All this information will be contained in the Information sheet that will be forwarded to the participants, together with the consent form as they will be requested to partake to the research

They will also be given time to ask questions and raise issues, prior to the commencement of the interview, during the proceed of interview sessions or even post interview sessions;

They will be taken through the consent form and asked to sign, should they be in agreement with its content thereof;

Participants' participation will be confirmed through written correspondence to each participant, from the researcher.

3.4 How will you collect data?

Data will be collected through (a) Document Analysis (Unit of analysis WP7 and other documents such as discuss memos and other correspondences that pertained to WP7), (b) In-depth open-ended interviews with purposefully selected participants.

[Attached is the preliminary data collection instrument\(s\)](#)

3.5 Is there a risk of harm to participants, to the participants' community, to the researcher/s, to the research community or to the University? If so how will these risks be managed?

There is no foreseeable or predictable physical risks attached to this research. The following project-work related risks and benefits have been envisaged:

Risks:

Participants: Even though efforts will be made to avoid disturbance to the daily work of participants, it can be expected that participants will experience additional workload and added stress, being a part of the research study. However, the researcher will try by all means to ensure that participants work time and production time is not infringed by his/ her participation to this research.

While identities of participants are to be concealed, as per the dictates of ethical consideration of research in general and CPUT ethical considerations in particular, the researcher acknowledges that there are always risks of unintentional nature or indirect identification of participants by either those who know well the apparatus of the system or by identity

theft. This could be caused by lack of enough security measures on the computers and other storage devices used by the researcher.

Regardless of all this, the researcher undertakes to ensure that careful and systematic care are taken when using pseudonyms in order to conceal identities of participants and increase security measures and awareness that make it difficult to access the researcher's computers and other storage devices by an unauthorised person. These security measures will include the use of complex passwords to computers but also data and files will be encrypted in an asymmetric manner.

Benefits:

Direct benefits that participants can take from this research is that:

- (a) For those participants who are policy makers, guidelines for reviewing WP7 that this study intends developing might be of assistance, not only, to participants but also the Basic Education sector as a whole;
- (b) Policy learning that will emanate from this research can help in the adjustment of policy implementation therefore contribute to the overall implementation of White paper 7 and in so doing alleviates participants' challenges in terms of WP7 implementation;
- (c) In view of the findings and recommendations of this study, basic education sector might enjoy better policies in future which could lead to better and purposeful implementation that attain policies objectives;

3.6 What plans do you have for managing the confidentiality and anonymity of participants in this study?

All data will be anonymised through a coding system that will be used for dissemination and publication. These codes will be known only to the researcher and kept separately from the data and thus cannot be linked back to research participants

Furthermore and as alluded to earlier on (risks), any computer and other related electronic devices, such as storage devices, used by the researcher for the purpose of this research will be password protected. Password in question will, not only, be complex following password golden rules but also will be renewed every six weeks. Further to password access to computers and other storage devices that will be used by the researcher, folders and files related to the study and more so to participants data will be encrypted in an asymmetric manner.

3.7 Are there any potential conflicts of interest for you in undertaking this study?

None

3.8 How will the findings be used on completion of the study?

Besides the publication of findings in the research thesis, formal correspondences will be addressed to participating Departments and other stakeholders informing them of findings from the study but also providing them with the WP7 proposed Guidelines for review. Furthermore, policy briefs and academic articles that present the findings to relevant practitioners and the wider public will be released. This include at least one academic article as to comply with CPUT guidelines

3.9 Does this work raise any other ethical issues and if so, how will you manage these?

A power imbalance might arise due to the age and socio-economic differences between researchers and researched. Research participants will be made aware through the consent dialogue process that their contribution to the project is very important and that they have complete agency over how and when they want to participate in the research, as well as the right to withdraw from the project

3.10 What training or experience do you bring to the project that will enable you to recognize and manage the potential ethical issues mentioned above?

Research (MEd) and my research positionality which include my 8 years as e-Education official both at National and Provincial Education levels.

4 Research Ethics Checklist

Ethical considerations:	Yes	No
4.1 Does the study involve participants who are unable to give informed consent? Examples include children, people with learning disabilities, or your own students. Animals?		✓
4.2 Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? Examples include students at school, members of self-help groups, residents of nursing homes — anyone who is under the legal care of another.		✓
4.3 Will it be necessary for participants to participate in the study without their knowledge and consent at the time — for example, covert observation of people in non-public places?		✓
4.4 Will the study with the research subject involve discussion of sensitive topics? Examples would include questions on sexual activity or drug use.		✓

4.5 Will the study involve invasive, intrusive, or potentially harmful procedures of any kind (e.g. drugs, placebos or other substances to be administered to the study participants)?		✓
4.6 Will the study involve prolonged or repetitive testing on sentient subjects?		✓
4.7 Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?		✓
4.8 Does your research involve environmental studies which could be contentious or use materials or processes that could damage the environment? Particularly the outcome of your research?		✓



5 Attachment checklist

Please Tick:

The following documents have to be included at the end of this document:

Attachment		✓
5.1 Consent form		✓
5.2 Data collection instrument(s)		✓
5.3 The information sheet		

Signatures:

Researcher/Applicant:		Supervisor or Senior investigator (if applicable):	
Date:	14 th October 2019	Date:	14-10-2019

Please note that in signing this form, supervisors are indicating that they are satisfied that the ethical issues raised by this work have been adequately identified and that the proposal includes appropriate plans for their effective management.

G2: Awarded ethical clearance certificate for the study



<i>***For office use only</i>	
Date submitted	22/10/2019
Meeting date	21/11/2019
Approval	P/Y/N
Ethical Clearance number	EFEC 5-11/2019

FACULTY OF EDUCATION

RESEARCH ETHICS CLEARANCE CERTIFICATE

This certificate is issued by the Education Faculty Ethics Committee (EFEC) at Cape Peninsula University of Technology to the applicant/s whose details appear below.

1. Applicant and project details (Applicant to complete this section of the certificate and submit with application as a Word document)

Name(s) of applicant(s):	K Tshimanika		
Project/study Title:	Guidelines for the Review and Re-formulation of the South African White Paper on e-Education		
Is this a staff research project, i.e. not for degree purposes?	N/A		
If for degree purposes the degree is indicated:	D.Ed		
If for degree purposes, the proposal has been approved by the FRC	Yes		
Funding sources:	N/A		

2. Remarks by Education Faculty Ethics Committee:

Ethics clearance is valid until 31 st December 2023		
Approved: X	Referred back:	Approved subject to adaptations:
Chairperson Name: Dr Candice Livingston		Date: 18/11/2019
Chairperson Signature: <i>Livingston</i>		
Approval Certificate/Reference: EFEC 5-11/2019		

G3: Participant consents

K. Tshimankwa
PhD Candidate
Contact No: 068 702 1235
Email: tshimankwa@gmail.com

19 May 2020

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TO: [Redacted]
Department of Basic Education (DBE)
Pretoria

Dear [Redacted]

RE: CONSENT TO PARTICIPATE IN A RESEARCH STUDY

You are, kindly, invited to participate in a research study being conducted by **KABEYA TSHIMANKWA (CLAUDE)**, a DOCTORAL CANDIDATE, from the Cape Peninsula University of Technology. The findings of this study are expected, not only, to contribute towards a Doctorate Degree in ICT in Education but also and more importantly contribute to the body of knowledge through the development of guidelines for the review and reformulation of the South African White paper on e-Education, also referred to as White Paper 7 (WPF).

(i) Selection criteria

Your selection, as a possible participant in this study, is informed by the fact that you, either, played a role contributed to the formulation of White paper 7 (WPF) or you were/are (currently) involved in the implementation of the policy (WPF). WPF provides policy framework for the integration of information and Communication Technology in Education, in South Africa.

The information below gives details about the study with view to helping you make an informed decision in relation to your participation to the study.

(ii) Title of the research

GUIDELINES FOR THE REVIEW AND RE-FORMULATION OF THE SOUTH AFRICAN WHITE PAPER ON E-EDUCATION

(iii) A brief explanation of what the research involves.

The study intends investigating the context and circumstances that led to the development or formulation of White Paper 7 with view to establishing factors that influenced the process of its formulation (White paper 7) and explore the effects on the implementation thereof. The study aims at developing guidelines for the review and reformulation of the South African White paper on e-Education, also referred to as White Paper 7 (WPF).

(iv) Procedures and Ethical considerations

As per ethical considerations of any research (see attached Ethical Certificate)

- Your participation will be on voluntary basis and may opt to withdraw your participation anytime you wish without any prejudice whatsoever.
- The researcher commits, amongst others, to conceal your identity (unless you express a different view) and will share with you the transcript of your interview for validation.

Should you agree to participate in the study, you will, only, be asked to:

- Partake in two in-depth open-ended interviews that will center on White paper 7 agenda setting, formulation and implementation thereof.

K. Tshimankwa
PhD Candidate
CPUT

Claude K. Tshimankwa - Request to Contact Researcher with WCEC

K. Tshimankwa
PhD Candidate
Contact No: 068 702 1235
Email: tshimankwa@gmail.com

22 May 2020

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TO: [Redacted]
Department of Basic Education (DBE)
Johannesburg

Dear [Redacted]

RE: CONSENT TO PARTICIPATE IN A RESEARCH STUDY

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- Partake in two in-depth open-ended interviews that will center on White paper 7 agenda setting, formulation and implementation thereof.

K. Tshimankwa
PhD Candidate
CPUT

Claude K. Tshimankwa - Request to Contact Researcher with WCEC

K. Tshimankwa
PhD Candidate
CPUT

22 May 2020

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TO: [Redacted]
Department of Basic Education (DBE)
Johannesburg

Dear [Redacted]

RE: CONSENT TO PARTICIPATE IN A RESEARCH STUDY

You are, kindly, invited to participate in a research study being conducted by **KABEYA TSHIMANKWA (CLAUDE)**, a DOCTORAL CANDIDATE, from the Cape Peninsula University of Technology. The findings of this study are expected, not only, to contribute towards a Doctorate Degree in ICT in Education but also and more importantly contribute to the body of knowledge through the development of guidelines for the review and reformulation of the South African White paper on e-Education, also referred to as White Paper 7 (WPF).

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Should you agree to participate in the study, you will, only, be asked to:

- Partake in two in-depth open-ended interviews that will center on White paper 7 agenda setting, formulation and implementation thereof.

K. Tshimankwa
PhD Candidate
CPUT

Claude K. Tshimankwa - Request to Contact Researcher with WCEC

Claude K. Tshimankwa - Request to Contact Researcher with WCEC

G4: Consent Letters from the Institutions



basic education
Department
Basic Education
REPUBLIC OF SOUTH AFRICA

Private Bag 9385, Pretoria, 0001, Gol Plaza House, 222 Struben Street, Pretoria, 0002, South Africa
Tel: (012) 357 3000, Fax: (012) 323 9801, www.education.gov.za

Ref no: 01908/1
Enquiries: Ms S Mabeke
Tel: (012) 357-3859
Email: Mabeke.S@dbe.gov.za

Mr K Tshimanika
11 Parkchalet
Meyerspark
PRETORIA
0001

By e-mail: tshimanika@gmail.com

Dear Mr Tshimanika

REQUEST FOR PERMISSION TO CONDUCT INTERVIEWS WITH DBE OFFICIALS FOR RESEARCH PURPOSES

The Department of Basic Education (DBE) received your request to conduct interviews with DBE officials for research purposes in response to your research question on the 'Guidelines for the Review and Re-formulation of the South African White Paper on e-Education (White Paper 7)'.

The request is approved on condition that the researcher adheres to the conditions set in the research protocol of the Department and to the ethical conduct of using research information.

The Research Coordination, Monitoring and Evaluation (RCME) Directorate will liaise with the relevant DBE officials on your behalf. It is emphasised that the information received from documents and interviews with the DBE officials should solely be used for the purpose of this research.

Basic Education • Basiese Ondersig • Isifundo Lomabini • Isifundo Lomabini • Isifundo Lomabini • Isifundo Lomabini • Isifundo Lomabini • Isifundo Lomabini • Isifundo Lomabini • Isifundo Lomabini
Phelele ka Mfundo • Phelele ka Mfundo • Phelele ka Mfundo • Phelele ka Mfundo

We recommend that you submit this letter as evidence that the Department is aware of your research and that you share the findings with the DBE at the conclusion of your study.

Yours sincerely

MR HM MWELI
DIRECTOR-GENERAL
DATE: 16 MARCH 2020



8/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	20 February 2020
Validity of Research Approval:	04 February 2020 – 30 September 2020 2019/404
Name of Researcher:	Tshimanika K
Address of Researcher:	160 Watermeyer Street 11 Parkchalet Meyerspark Pretoria, 0184
Telephone Number:	073 234 8804/064 755 1136
Email address:	tshimanika@gmail.com
Research Topic:	Guidelines for the Review and Re-formulation of the South African White Paper on e-Education (White Paper 7)
Type of qualification	PhD
Number and type of schools:	Head Office
District/s/HO	Head Office

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

M. Tshabalala 20/02/2020

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. Letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.
2. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.
3. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.
4. A letter / document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.
5. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.
6. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
7. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
8. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
9. It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.
10. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
11. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.
12. On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.
13. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.
14. Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

M. Tshabalala

Mrs Faith Tshabalala
 Acting Director: Education Research and Knowledge Management

DATE: 20/02/2020



Directorate: Research

Audrey.wyngaard@westerncape.gov.za
tel: +27 021 467 9272
Fax: 0865902282
Private Bag x9114, Cape Town, 8000
wced.wcape.gov.za

REFERENCE: 20200131-3897
ENQUIRIES: Dr A.T Wyngaard

Mr Claude Tshimanika
160 Watermeyer Street
11 Parkchalet
Meyerspark
Pretoria
0184

Dear Mr Claude Tshimanika

RESEARCH PROPOSAL: GUIDELINES FOR THE REVIEW AND RE-FORMULATION OF THE SOUTH AFRICAN WHITE PAPER ON E-EDUCATION

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. Educators' programmes are not to be interrupted.
5. The Study is to be conducted from **02 March 2020 till 29 May 2020**
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr A.T Wyngaard at the contact numbers above quoting the reference number?
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as forwarded to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:
**The Director: Research Services
Western Cape Education Department
Private Bag X9114
CAPE TOWN
8000**

We wish you success in your research.

Kind regards,
Signed: Dr Audrey T Wyngaard
Directorate: Research
DATE: 31 January 2020

Lower Parliament Street, Cape Town, 8001
tel: +27 21 467 9272 fax: 0865902282
Safe Schools: 0800 45 46 47

Private Bag X9114, Cape Town, 8000
Employment and salary enquiries: 0861 92 33 22
www.westerncape.gov.za

APPENDIX H: INTERVIEW QUESTIONNAIRE

IN-DEPTH OPEN-ENDED INTERVIEW QUESTIONS GUIDELINES FOR THE REVIEW AND RE-FORMULATION OF SA WHITE PAPER ON E-EDUCATION

By Kabeya Tshimanika (Marie Claude)

Student No: 219493561

PhD: ICT in Education

INTRODUCTION AND BACKGROUND TO THE STUDY

The intention of this study is to investigate the context and circumstances that led to the development or formulation of White Paper 7 with view to establishing factors that influenced the process of its formulation (White paper 7) and explore the effects on the implementation thereof. **Ultimately, this study aims at developing guidelines for the review and reformulation of the South African White paper on e-Education, also referred to as White Paper 7 (WP7).**

The study's main question is:

How can the understanding of the context of WP7 formulation and its influence on the formulation process and the policy content thereof help expose formulation flaws (that could have predisposed the policy to reported failure) and pave the way for the development of guidelines for its review and reformulation?

ETHICAL CONSIDERATION

As per ethical considerations of any research (see attached Ethical Certificate):

- i. Your participation will be on voluntary basis and may opt to withdraw your participation anytime you will wish without any prejudice whatsoever;
- ii. The researcher commits, amongst others, to ensuring that:
 - a. Your identity will be concealed (unless you express a different view) and;
 - b. The transcript of your interview will be shared with you for your validation;
 - c. Should you agree to participate in the study, you will, only, be asked to *partake in two In-depth open-ended interviews that will center on **White paper 7 agenda setting, formulation and implementation** thereof.*
 - d. *Do you agree to partake to this in-depth face-to-face interview?*

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- e. *This in-depth open ended interview is to be **tape-recorded and later on transcribed**. Do you agree to be recorded? (Both the recording and transcripts will be made available to you for validation)*

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- f. *For the purpose of recording, May you state your Name and Sumame*

Now that you have given permission for the recording of the interview, I am switching on the recorder for the rest of the interview.

PARTICIPANT'S BASIC INFORMATION

Are you from the Public, Private Institution or on your individual capacity?	Public	<input type="checkbox"/>	Private	<input type="checkbox"/>	NGO	<input type="checkbox"/>	Individual capacity	<input type="checkbox"/>
What is the Name of your Institution?								
From which Province is that?	Gauteng	<input type="checkbox"/>	W. Cape	<input type="checkbox"/>	Other	<input type="checkbox"/>		
Gender	Male			<input type="checkbox"/>	Female			<input type="checkbox"/>
What is your area of speciality								
For how long have you been involved with ICT in Education?	Less than 5 Years	<input type="checkbox"/>	Between 5 and 10 years	<input type="checkbox"/>	More than 10 years	<input type="checkbox"/>		
Are you still in the field of ICT in Education?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Some how	<input type="checkbox"/>		

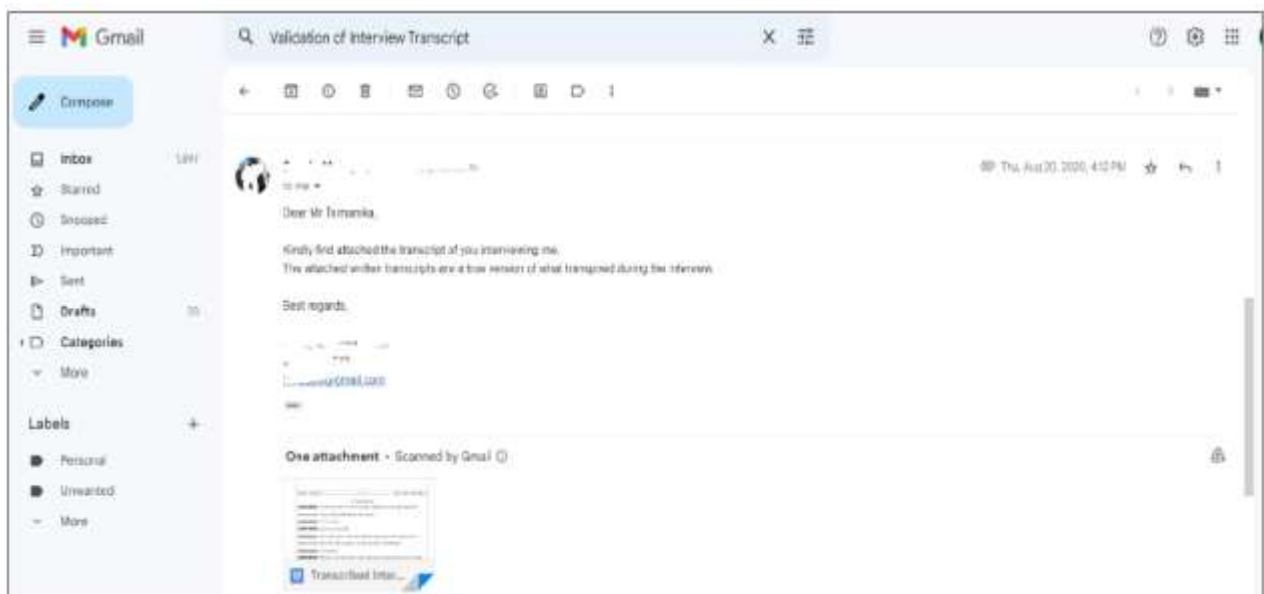
THE INTERVIEW

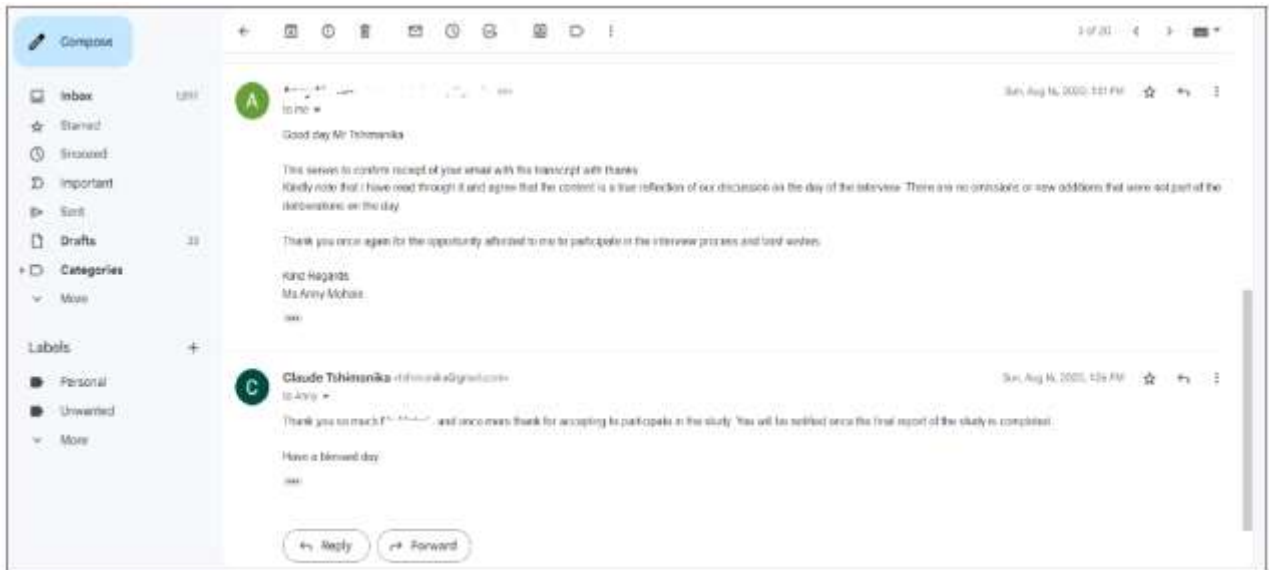
Main Research Question	How can the socioeconomic and political factors that influenced the formulation of WP7 and positively impacted on its implementation contribute to development of guidelines for its review and re-formulation?
------------------------	---

Tenet of main research question	<p>Unravel:</p> <p>(a) the socioeconomic and political factors that influenced the formulation of WP7 and</p> <p>(b) ideas and contradicting ideologies that are inherent to the WP7 and form its compromising Policy status.</p> <p>This is with view to identifying and isolating those of the socioeconomic and political factors that might have positively contributed to the known implementation successes and establish how they can be of value to the development of guidelines for the review and re-formulation of WP7</p> <ul style="list-style-type: none"> <i>In view of the above, I want to tape into your knowledge with view to, both, understanding WP7 formulation, including the circumstances that prevailed, and its implementation experiences which will help in crafting directives (guidelines) for its review and reformulation</i> 	
Setting the Scene Questions	<ol style="list-style-type: none"> Kindly share with me how you ended-up being involved with ICT in education, particularly with WP7? What functions were you occupying during the period of WP7 problem identification, agenda setting and policy formulation? <ol style="list-style-type: none"> To what extent were your functions and responsibilities related or found expression in the WP7? Which units internal to WCED were involved in both the agenda setting and the actual formulation of the WP7? And how? Which particular individual(s) in your province, do you know of, was/ were instrumental in both the agenda setting and formulation of WP7? Can you share with me your understanding of WP7 and what it seeks to achieve 	
Questions related to the Main Research Question and it sub-questions		
Main Research Question	How can the socioeconomic and political factors that influenced the formulation of WP7 and positively impacted on its implementation contribute to development of guidelines for its review and re-formulation?	
Sub-Question 1	<ol style="list-style-type: none"> What socioeconomic and political factors and circumstances that led to the intention to formulate WP7 and how did they contribute to the implementation challenges and successes? <ol style="list-style-type: none"> Can you describe the socioeconomic and political factors and circumstance of that time that prevailed and influenced the formulation of WP7? <ol style="list-style-type: none"> Do you think it was the real classroom needs that took the center-stage? What are your own fundamental beliefs about education? From your own fundamental beliefs about education, what role do think is appropriate for Information Communication Technology? Do you find yourself, in terms of your fundamental beliefs and ideologies about education, well represented in the WP7? What agenda do you think was pursued through the fomulation of WP7 and who were the dominant forces? Do you think external forces, such as computer manufacturers and vendors or their agents, played a role in the formulation of WP7 with view to entrench their own agenda and hegemonic power? If so, what role was that? Do you think the context that led to the formulation of WP7 could have some influence on its implementation? <ol style="list-style-type: none"> Which type of influence would that be (positive/ negative)? Kindly describe What according to you, more than fifteen years after the publication of WP7, has contributed to the WP7 not being passed a law? Can you share with me any written document, be it internal memos, minutes of meetings or correspondences to or from that pertained to the WP7 agenda setting and formulation? 	Objective pursued by the sub-question <p>This question seeks to address or explore and understand the context (socioeconomic, cultural and political context) that led to the formulation of WP7 and how this context could have positively or negatively influenced policy implementation.</p>
Sub-Question 2	<ol style="list-style-type: none"> What views and ideas about education, e-Education and policy implementation do the key formulators of WP7 hold? <ol style="list-style-type: none"> Who were the prominent actors, both in terms of individuals and organizations that extensively involved in the policy formulation? Can you recall the ideological underpinning of some of the prominent actors (individuals and/ or organizations) in relation to education in general and e-Education in particular? What were those ideological underpinning (both about education in general and e-Education in particular) Did these prominent actors hold particular views that you can remember pertaining to the policy implementation? Kindly elaborate on those views 	Objective pursued by the sub-question <p>Through this question, the researcher seeks to, not only, identify key actors that were involved in the policy formulation but also understand their ideological underpinning with regard to education in general and e-education in particular and what are their views on the policy implementation</p>
Sub- Question 3	<ol style="list-style-type: none"> What are the necessary characteristics or features that are key for the development of a set of guidelines for the review of WP7? 	Objective pursued by the sub-question

	<p>3.1. Do you think, after fifteen years of implementation, there is a need to review WP7? Kindly elaborate</p> <p>3.1.1. What, according to you, is that problematic situation(s) pertaining to WP7 that has the potential to trigger the need to review WP7?</p> <p>3.1.2. Who (key individuals, organizations, etc.) will you consider to constitute or form part of your pressure group for the review of the policy?</p> <p>3.2. What, in your view, will be the best way of managing different contradicting ideologies that are always prominent during policy enactment?</p> <p>3.3. How best do you think power relation should be managed during policy agenda setting and policy enactment?</p> <p>3.4. Given funding challenges that WP7 has been notorious for in most of the Provinces, what financial model do you think will be necessary for a successful implementation of the reviewed e-Education Policy in South Africa? Kindly elaborate</p> <p>3.5. What type of administrative structure, at all levels of the system, and regulations do you think will be necessary in support to a successful implementation of the reviewed e-Education Policy in South Africa?</p> <p>3.6. How best do you think the new and reviewed e-Education Policy in South Africa should be evaluated?</p> <p>3.6.1. Do you think this evaluation should be self-conducted by Provincial Education Departments and the National Education Department or there should be an independent body that monitors and evaluates the implementation? Kindly motivate your answer</p>	<p>Through this question the researcher intends outlining or establishing key features that will be useful for the development of guidelines for the review of WP7 in view of the extension to 2030 of the policy timeframe</p>
<p>What else can you share with me that we might have not touched during this interview that you think is critical and can richly contribute to the outcome of this study</p>		

APPENDIX I: SAMPLE OF INTERVIEW TRANSCRIPTS VALIDATION





APPENDIX J: PARTICIPANTS' INTERVIEW TRANSCRIPTS (SAMPLE)

Sample 1

INTERVIEWER: I see, it makes a lot of sense to me, I have read the framework quite extensively because I believe it will find some good space in my study. Now let's go to the White Paper now, can you from your own perspective share with me your own understanding of White Paper 7 and what it seeks to achieve?

GR: Well you know White Paper 7 was really a forerunner to what actually ended up being Operation Pakhisa because first of all it defined e-learning or e-education and it tried to also define how ICTs could be used in education so from the teacher development and e-learning perspective, that was my real interest in the White Paper but also of course it was an implementation....kind of an implementation document within the policy framework and it had those strategic objectives which are now found in the various streams of Pakhisa, such as professional development and connectivity, etc. etc. I think it dated itself quite quickly in that sense, in terms of its targets that it set itself, in terms of who would have access and who would have what kind of training by when, that sort of put the one aspect of the White Paper in a poor light quite quickly which was unfortunate, but there are other aspects about the White Paper which still hold very true today, it's specifically around its references and definitions about e-learning, what kind of learning is envisaged through e-learning and it's really encouraging that it was not seeing e-learning as a technical thing, it was seeing e-learning in a pedagogical sense and there are lots of references to the ability of learners to communicate and collaborate, to think at high levels, to build knowledge and communicate that, so I think even today, even in our implementation, presentations about the framework, we fall back onto those aspects of the White Paper as a strong support for a pedagogically focused approach to professional development and ICTs in education, even today

Sample 2

INTERVIEWER: Right, can you share with me your understanding of White Paper 7 and what according to you, what White Paper 7 seeks to achieve?

AM: Well my understanding of White Paper 7 is it's a legislative piece of framework that revolved around the initial ICT in education to accelerate the achievement of [indistinct]. [Indistinct] seeks to enforce the use of ICT in teaching and learning as well as in administration, so it looks at how the [indistinct] needs to be changed, how ICT needs to be integrated in teaching and learning and assessment so there are better opportunities and platforms that are provided to improve the quality of education that is provided. It's main goal says every learner in the South African education space, in the GET and FET [indistinct] will be ICT capable by 2013, ICT capable meaning that they should be able to use ICT in an innovative and creative manner to resolve whatever challenges that they encounter to collaborate with each other and to participate in the economy of the country, they should use their ICT skills in a meaningful manner to manage information, to access information, to process, to analyse and to present information.

Sample 3

INTERVIEWEE: Minister Asmal was under pressure to do something about **ICT**. Because everybody was telling him that **ICT** will solve a lot of educational challenges or conflicts - Educational conflicts yes.

INTERVIEWEE: Yes. And so as a result he asked my late boss, Mr (indistinct 00:22:11) to lead that process. Mr (indistinct 00:22:17) asked money from **US Aid** and then he took me and put me and told people from **US Aid** that I am, I am the person who is going to sponsor it, so I was the secretariat of the White Paper subcommittee. The subcommittee (indistinct 00:22:33) consisted of different Heads of Education from Provinces and one DDG from the **DoE**.

Sample 4

INTERVIEWER: Now when you look at the way you see education, the way you see ICT and then you look at the White Paper, do you get a sense that it speaks to your own fundamental belief about education, the White Paper, the education, the ICT in education.

MGV: I think it, I'd like to say the spirit of it yes, is reflected.

APPENDIX K: WEB-BASED TOOLKIT TO OPERATIONALISE WP7

K1: USER MANUAL FOR THE WEB-BASED TOOLKIT



basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



Cape Peninsula
University of Technology

TOOLKIT FOR THE OPERATIONALISATION OF THE REVIEWED AND REFORMULATED WHITE PAPER SEVEN USER MANUAL

One of the contributions from the Study entitled:
Development of Guidelines for the Review and Re-Formulation of White Paper 7
by K. Tshimanika (PhD candidate: Cape Peninsula University of Technology)

1. DESCRIPTION OF THE PROPOSED WEB-BASED TOOLKIT APPLICATION

White paper 7 (WP7) web-based toolkit application is one of the key contributions of the study (guidelines for the review and re-formulation of the South African White paper on e-Education) to the South African basic education sector. The study sought to develop guidelines for the review and reformulation (GRR) of WP7, in view of its widely reported failure to reach its set objectives and goal by 2013, as envisaged. However, while the proposed guidelines provide guidance on the process to review and re-formulate WP7, the toolkit application—an integrative part of the GRR—is the proposed instrument for the operationalisation or implementation of the reviewed and reformulated WP7. Principal users of the toolkit will include the national and provincial education departments' officials entrusted with the responsibility to implement WP7. As a web-based application, the toolkit is to be used simultaneously in real-time, to the extent that the national department will have real time reports, including spending, related to the implementation of the reviewed WP7. The toolkit makes provision for the capturing of key policy imperatives, including the goal(s) of the policy goal and related strategic objectives. Thereafter, and on yearly basis, performance indicators linked to each strategic objective will be captured, before the capturing of granular activities and related yearly budget allocated to the project and the spending of such budget in relation to each strategic objective.

The application caters for three level of user access rights. Each of the level may consist of multiple users with diverse access rights due to the type of work assigned to the user. The three level of user access rights include: (a) the system administrator, (b) the national project manager (NPM), (c) the national project co-ordinators (NPC) who manages, each, a strategic objective of the policy. At Provincial level, users of the system include, both the provincial project manager (PPN) and the provincial project coordinators (PPC), who manage the strategic objectives at provincial level.

1.1. Benefits and Value

The application has the potential to assist the sector manage the implementation of e-Education activities and the funding related to it. The consistence use of the toolkit will assist the national department to efficiently and effectively monitor and evaluate the implementation of WP7 by provinces. This results in the toolkit further helping or contributing to the elimination of tedious process that the National Department goes through to collate information pertaining to the e-Education rollout. Even though the focus of application revolves around the implementation of WP7, it may, however, be used to manage any other similar project.

1.2. Platform Requirements

As a web-based instrument, the application can only be accessed through connecting to the Internet using a web browser (google chrome, Mozilla Firefox, Internet Explorer, Microsoft Edge, UC browser, Apple Safari, Opera) through a laptop, desktop computer, mobile phone, or a tablet computer.

1.3. Users' Role and Access Rights

USER	ROLE
System administrator	<ul style="list-style-type: none"> • Create a user account • Create a project and on board NPM, PPM • Add a project goal • Add project strategic objective
National Project Manager (NPM)	<ul style="list-style-type: none"> • Create a user account • On board National Project Co-ordinator (NPC), Assign strategic objective • Capture budget (voted fund, Conditional grant, strategic objective) • Assign funds (Province, Project Team Members)
National Project Co-ordinator (NPC)	<ul style="list-style-type: none"> • Oversee their assigned project strategic objective • Capture their assigned strategic objective operation plan
Provincial Project Manager (PPM)	<ul style="list-style-type: none"> • Create a user account • On board Provincial Project Owner (PPO), project team members • Assign strategic objective to team members • Capture the provincial voted fund (equitable share) • Assign funds (Project Team Members)
Provincial Project Co-ordinators	<ul style="list-style-type: none"> • Oversee their assigned project strategic objective • Capture their assigned strategic objective operation plan

1.4. Dummy Users Access Credentials for Examination Purposes Only

For this study, the web-based toolkit can be accessed temporary and for examination through the following URL (Uniform Resource Locator) or web-link and user credentials outlined in table 25 below:

- URL: www.toolkitWP7implementation.co.za
- Dummy user credentials for system testing

Table 25: Dummy user credentials to the web-based toolkit

User Access Level	Username (user email)	Password
System Administrator	admin@admin.com	
National Project Manager	npm@mail.com	
National Project Coordinator	npc@mail.com	
Provincial Project Manager	ppm@mail.com	
Provincial Project Coordinator	ppc@mail.com	

It is important to mention that *sign-in credentials or user credentials* are required as the toolkit is not meant for public use but restricted to specific elected officials entrusted with the responsibilities to implement the reviewed and reformulated WP7. The system therefore authenticates against preloaded usernames and passwords. However, to enhance its security, credibility of data and users' trust to the system, upon logged in for the first time, the users will be required to change their passwords. The system caters as well for *forgot password* functionality that uses two-factor authentication (2FA), adding another layer of security in the authentication process by providing users (forgotten password) with unique security tokens. The latter must be fed back to the system as a means of ascertaining that the correctness of the user.

The following are the sections that constitute appendix D:

- Section **D1** contains the user manual on the use of the toolkit;

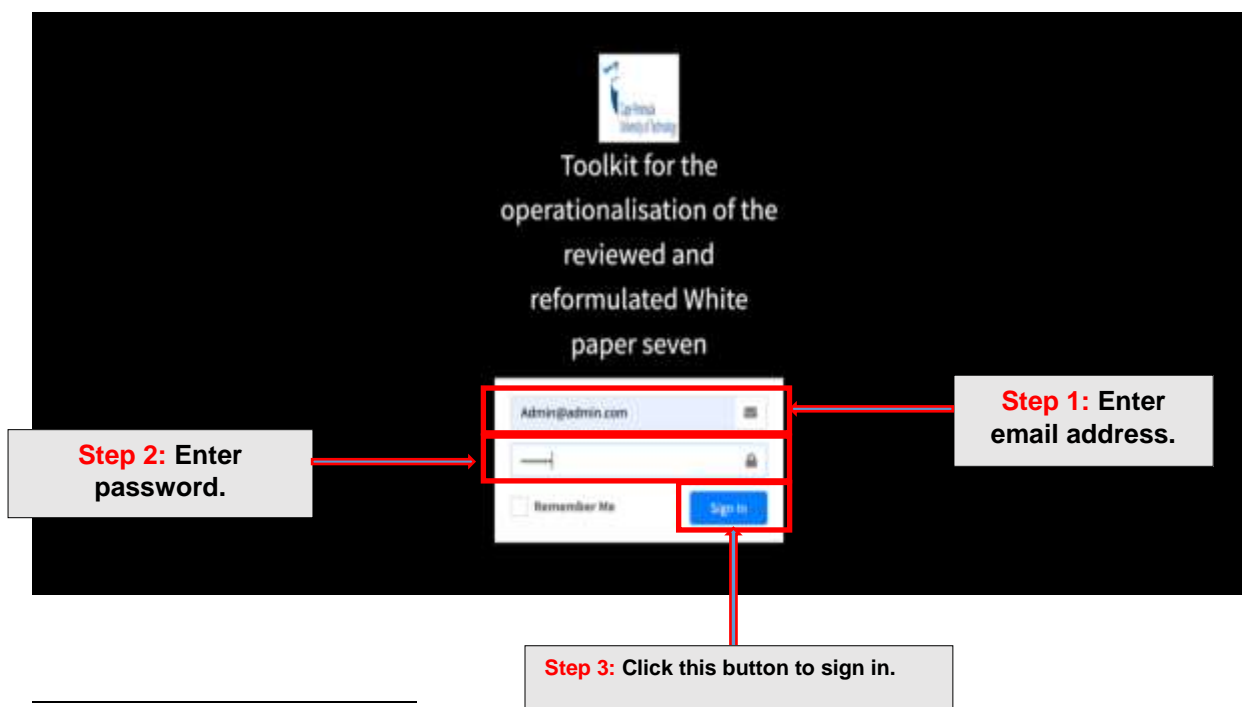
- Section **D2** includes the following subsections:
 - **D2.1:** Agenda of DBE HEDCOM⁷ subcommittee on e-Education meeting of 17-18 May 2023 featuring, amongst others, the presentation of the proposed web-based toolkit to the subcommittee;
 - **D2.2:** Some comments by members of the HEDCOM subcommittee on the proposed toolkit. The subcommittee on e-Education is composed with senior national and provincial education officials who advise the HEDCOM (DBE Director General and Head of Departments (HOD)) on matters related to e-Education;
 - **D2.3:** Minutes of the meeting (5 April 2023) held between the researcher and DBE officials who oversee the monitoring, evaluation and implementation of WP7. Members of the subcommittee include: (a) DBE officials on e-Education, (b) Provincial officials on e-Education, and other education critical stakeholders, including amongst others representatives of bodies such as the National Education Collaboration Trust.

1.5. Step by Step Guidelines for the Utilisation of the Application

For testing purpose, the application is currently hosted in a free domain (epizy.com) and can be accessed by typing or entering the following URL into a specific browser's search:

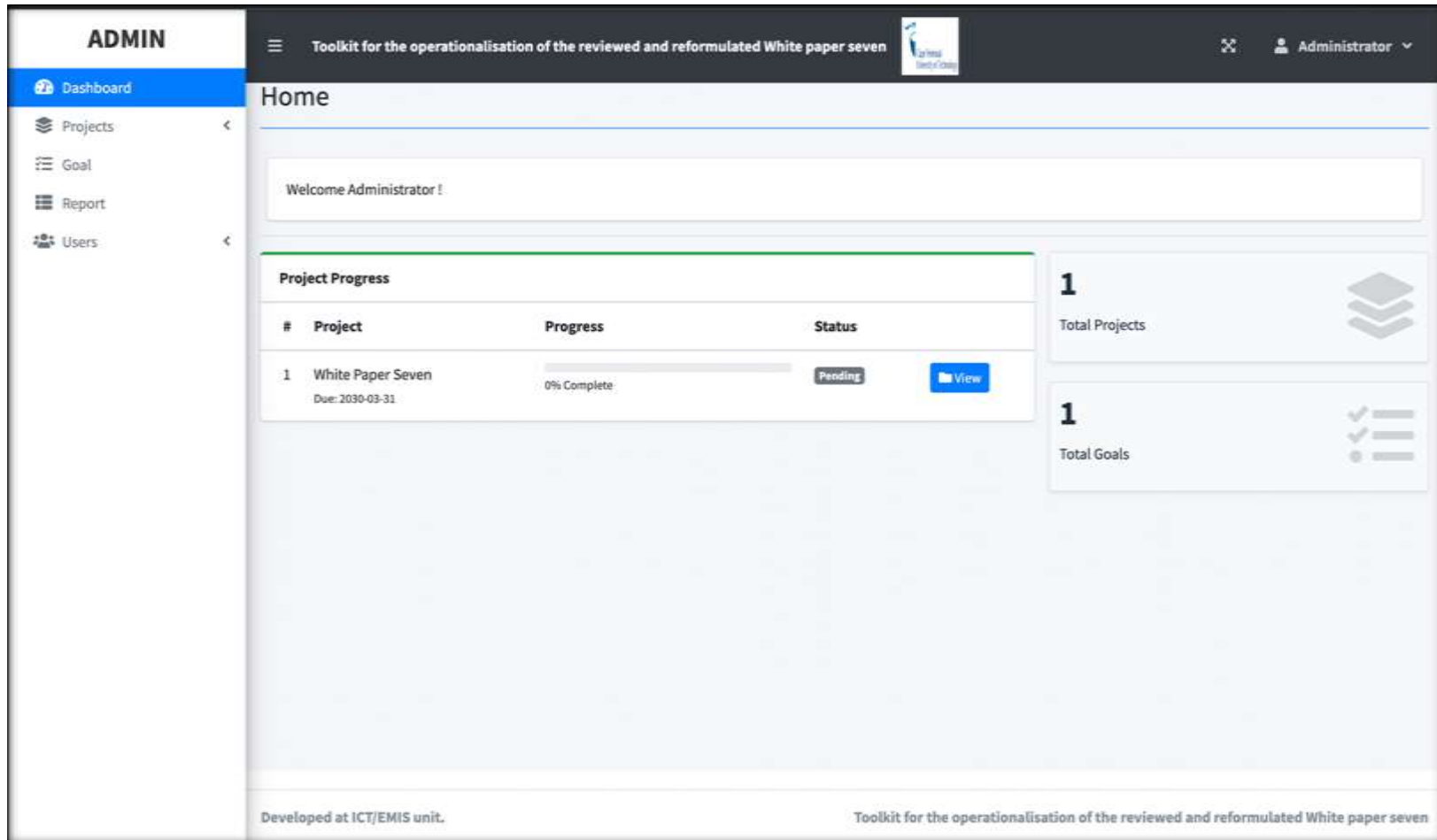
Toolkitwp7implementation.epizy.com

Once the above URL is typed in a web-browser search engine, the application is launched. Below is a screenshot of welcome/ user credentials page of the application that prompts the user to, first of all, capture his/ her email address (e.g. admin@admin.com) then type the password in the appropriate provided space. Prior to this login process, all users would have been preloaded into the system by the system administrator in order to facilitate the authentication process.

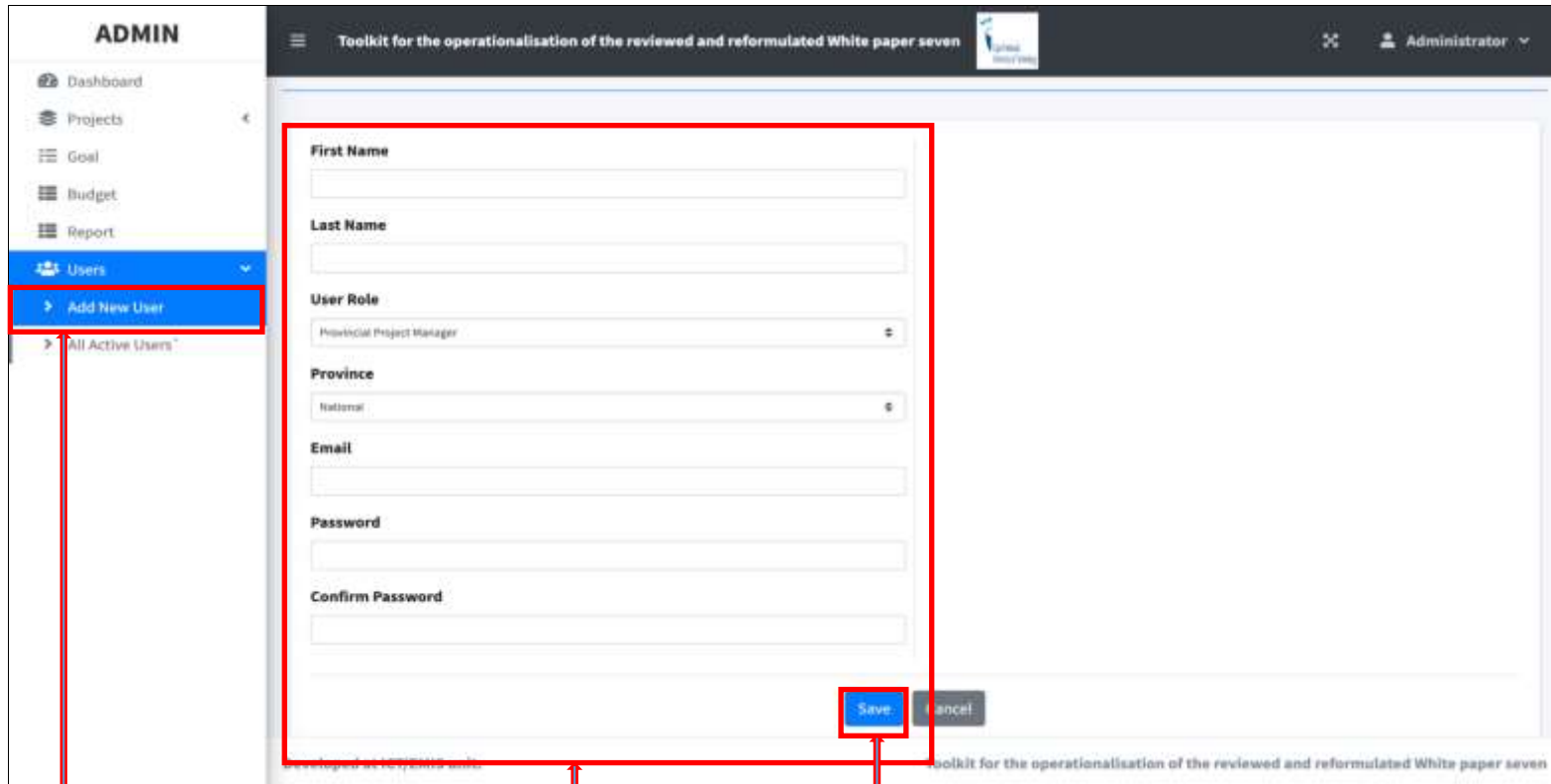


⁷ Head of Departments Committee

- Upon typing or entering the correct user credential, the system displays the “home” page, as demonstrated by below screenshot.



- Below screenshot shows how “new user” account can be created. The page opens up once the User/Administrator clicks on the “users tab” on the side navigation (left) bar.



Step 4: Click “Add New User”.

Step 5: Capture user's details

Step 6: Click “save” to store/save user account details.

2. Creating a New Project (Administrator)

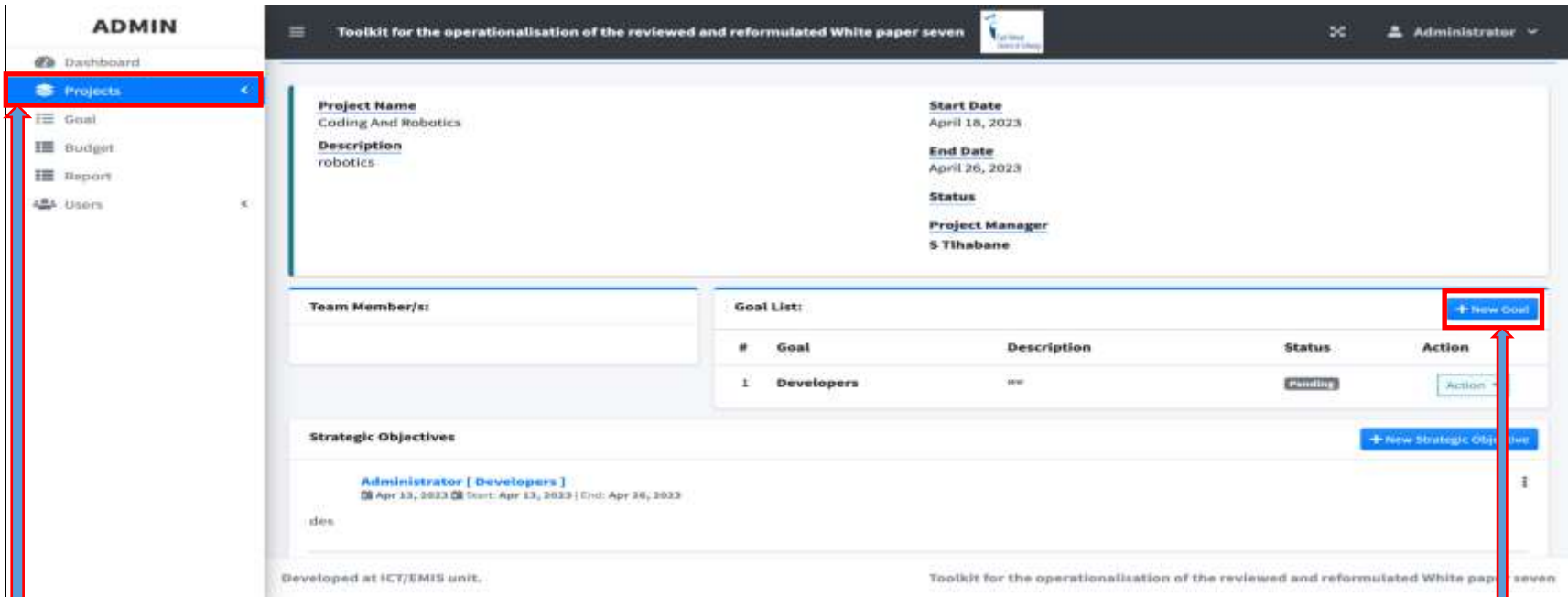
- The creation of a “New Project” is done by clicking on “Add New Project” (see below screenshot).
- Once the “Add New Project” is clicked, the system displays a form that allows for the creation of a New Project (e.g. Implementation of WP7).
- Amongst information needed at this stage of project creation is the “Project owner”. Once such information is provided, the respective project owner will receive an email notification, informing him/ her of the creation of the project that is assigned to him/ her as the project owner.

The screenshot shows the 'New Project' form in an administrator interface. The form includes fields for 'Name (Project reference number)', 'Status', 'Start Date', 'End Date', and 'Project Owner'. A 'Remarks' field is also present, which is highlighted with a red box. The 'Project Owner' field is also highlighted with a red box. The 'Remarks' field contains a rich text editor toolbar with various icons. The 'Project Owner' field has a dropdown menu with the text 'Please select here'.

Step 7: Click on “Add New Project”.

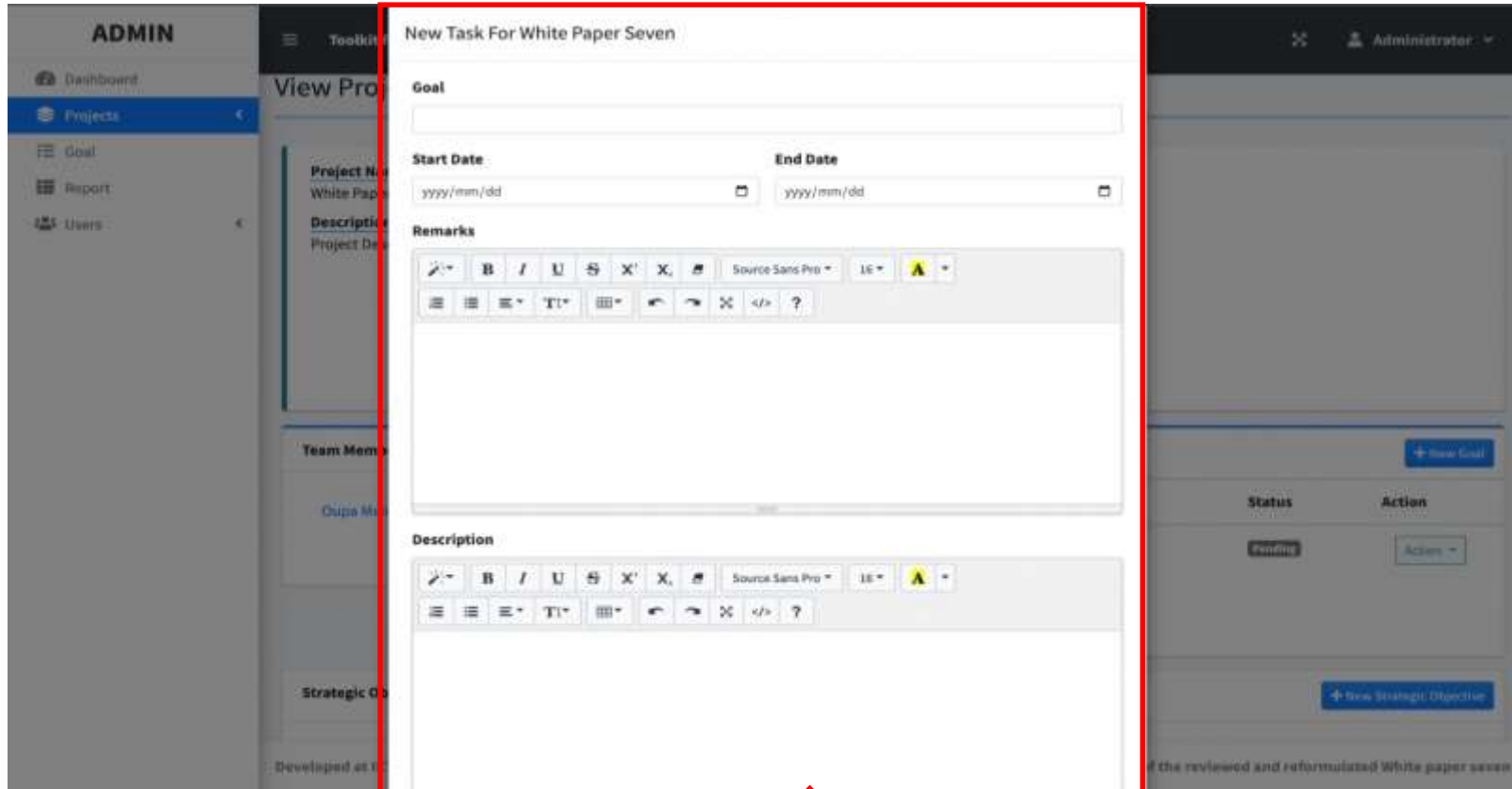
Step 8: The system forces the user to press button “OK” and automatically opens the page that allows the user create a profile

Step 9: On board NPM.



Step 10: Click on "Projects" to display the project list and select a project from the project list

Step 11: Click "New goal" to access the form where the user can enter the



Step 12: Upon clicking on “New goal” button the system displays “New task for white paper seven”, as the screenshot above demonstrate and allows the user to capture project goal details and click button “save”

The screenshot displays an administrative interface with a sidebar on the left containing menu items: Dashboard, Projects (highlighted), Goal, Budget, Report, and Users. The main content area is titled "Toolkit for the operationalisation of the reviewed and reformulated White paper seven" and shows details for a project named "Coding And Robotics".

Project Details:

- Project Name:** Coding And Robotics
- Start Date:** April 18, 2023
- Description:** robotics
- End Date:** April 26, 2023
- Status:** (blank)
- Project Manager:** S Tlhabane

Below the project details, there are sections for "Team Member/s:", "Goal List:", and "Strategic Objectives".

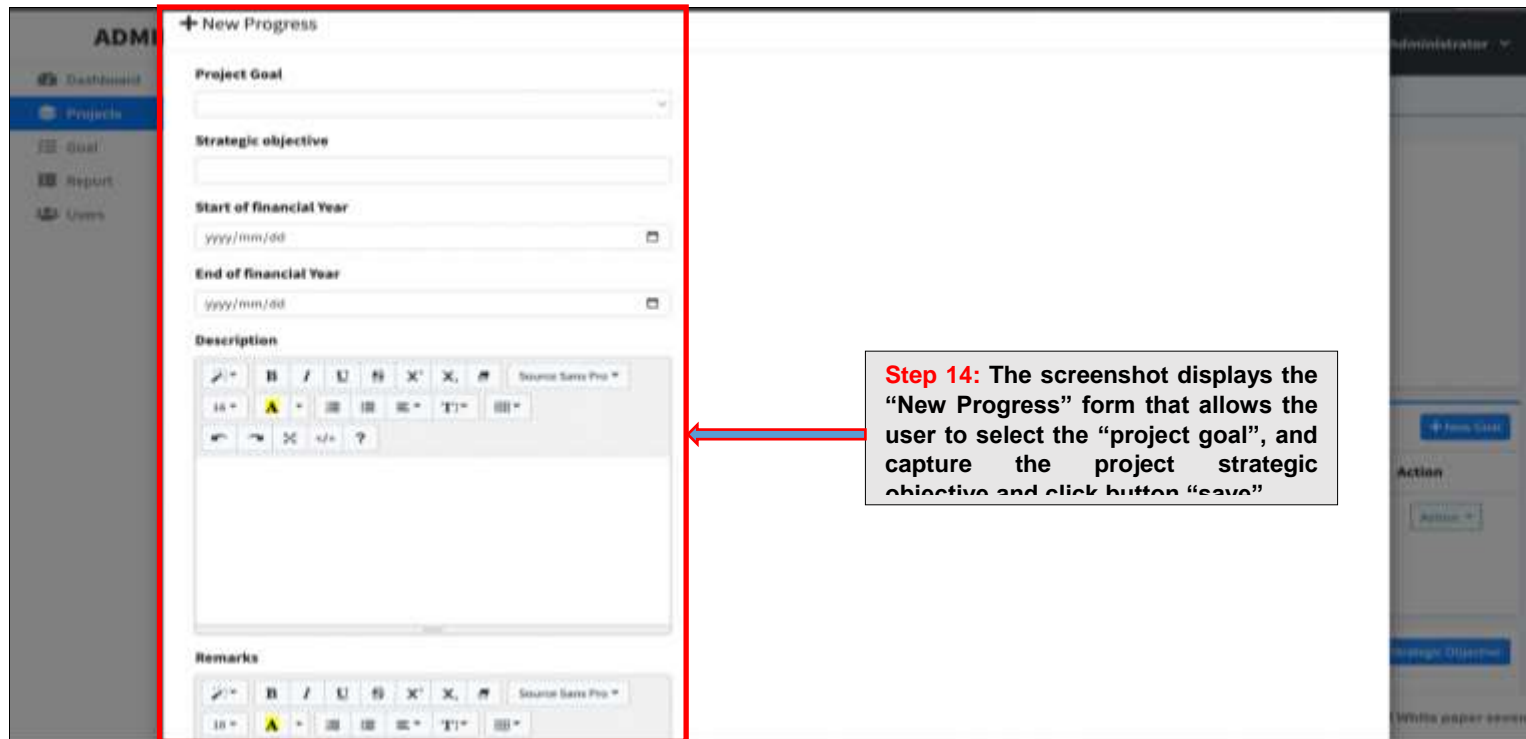
The "Goal List:" section contains a table with the following data:

#	Goal	Description	Status	Action
1	Developers	we	Pending	Action

A red box highlights a "+ New Goal" button in the top right corner of the "Goal List:" section. A red arrow points from this button down to a text box below the screenshot.

The "Strategic Objectives" section includes a "+ New Strategic Objective" button and a list item for "Administrator [Developers]" with dates: Apr 13, 2023 | Start: Apr 13, 2023 | End: Apr 26, 2023.

Step 13: Click on “New Strategic Objective” to access the form where the user can enter the project strategic



3. Allocation of budget (National Project Manager / NPM)

- **Step 15:** Upon the creation of the project, the National Project Manager (NPM) will receive an email notification in regard to the project that he/she is linked to.
- Once NPM received the email notification, they will follow the same steps as demonstrated on the screenshot on **Step 4**, **Step 5** and **Step 6** to create a new user account.
- The allocation of “Budget” is done by clicking on the “Budget” (see screenshot below).

- Once the “**Add New Project**” is clicked, the system pops up a form that allows for the creation of a New Project (e.g. Implementation of WP7).

Amongst information needed at this stage of project creation is the “**Project owner**”. Once such information is provided, the respective project

The screenshot displays a web application interface. On the left, a sidebar menu under the heading 'USER' contains several items: 'Dashboard', 'Projects', 'Goal', 'Budget' (highlighted in blue), 'Assign Strategic objectives', 'Report', and 'Users'. The main content area is titled 'Budget Two' and features a table with the following data:

#	Project	Date Started	Due Date	Status	Action
1	Coding And Robotics <i>robotics</i>	Apr 18, 2023	Apr 26, 2023	In-Progress	Action
2	White Paper Seven <i>Project Description</i>	Apr 01, 2024	Mar 31, 2030	Pending	Action

Below the table, it says 'Showing 1 to 2 of 2 entries' and includes 'Previous' and 'Next' navigation buttons. A red box highlights the 'Action' button for the first project, and a red arrow points to it from a callout box.

Step 16: Click “Budget” to access the “Budget” form that displays a list of projects linked to the user.

Step 17: Click “Action” and select “view” from drop down menu that will be displayed from the “Action” button.

4. Allocation of budget (National Project Manager / NPM)

- The screenshot below displays the “Add Budget Two” form.
- The form allows the user to add both “Annual budget for project” and “Annual budget for strategic objective”.

The screenshot shows a web application interface for adding a budget. The main content area is titled "Add Budget Two". It contains several form fields and sections:

- Project Name:** Coding And Robotics
- Description:** robotics
- Start Date:** April 18, 2023
- End Date:** April 26, 2023
- Conditional Grant amount:** 0
- Donor amount:** 0
- Status:** Pending
- Project Manager:** S Tihabane

Below these fields, there are two main sections:

- Team Member/s:** A text input field.
- Goal List:** A table with columns: #, Goal, Description, Status, and Action.

#	Goal	Description	Status	Action
1	Developers	we	Pending	Action

At the bottom of the form, there are two buttons:

- + Add annual budget for Project** (highlighted with a red box)
- + Add annual budget for Strategic objective**

The interface also includes a sidebar menu on the left with options like Dashboard, Projects, Goal, Budget, Assign Strategic objectives, Report, and Users. The top navigation bar shows the user is logged in as "USER" and the page title is "Toolkit for the operationalisation of the reviewed and reformulated White paper seven".

Step 18: Click “Add annual budget for project” to view the form that allows a user to add project budget.

Step 19: The screenshot displays the “Budget” form. On this form the user enter “voted amount”, “Conditional grant” and to capture the “comments”. The system allows the user to press “save” on bottom right corner.

USER

Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Add Budget Two

Project Name
Coding And Robotics

Start Date
April 18, 2023

Description
robotics

End Date
April 26, 2023

Conditional Grant amount
0

Status

Donor amount
0

Project Manager
S Tihabane

Team Member/s:

Goal List:

#	Goal	Description	Status	Action
1	Developers	web	Pending	Action

Members Progress/Activity

+ Add annual budget for Project + Add annual budget for Strategic objective

Administrator [Developers]
Apr 13, 2023 | Start: Apr 13, 2023 | End: Apr 26, 2023

web

Developed at ICT/EMIS unit. Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Step 20: Click “Add annual budget for strategic objective” to view the form that allow the user capture budget for strategic objective.

Step 21: On board the National Project Co-ordinator (NPC) from the

Step 22: The screenshot displays the “Budget” form. On this form the user enter “voted amount”, “Conditional grant” and the “Amount allocated” to each province. The system allows the user to press “save” on bottom right corner.

5. Allocation of budget (National Project Co-ordinator / NPC)

- The screenshot below displays the “Home page” form for the National Project Co-ordinator (NPC).
- The form allows the user to display the “Record annual budget targets” form once the button is clicked.

USER

Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Thabang

Home

Welcome Thabang Giritte!

Record performance indicators

Record annual targets

Budget and Activities

Report

Users

Project Progress

#	Project	Progress	Status
1	White Paper Seven Due: 2020-03-31	0% Complete	Pending View

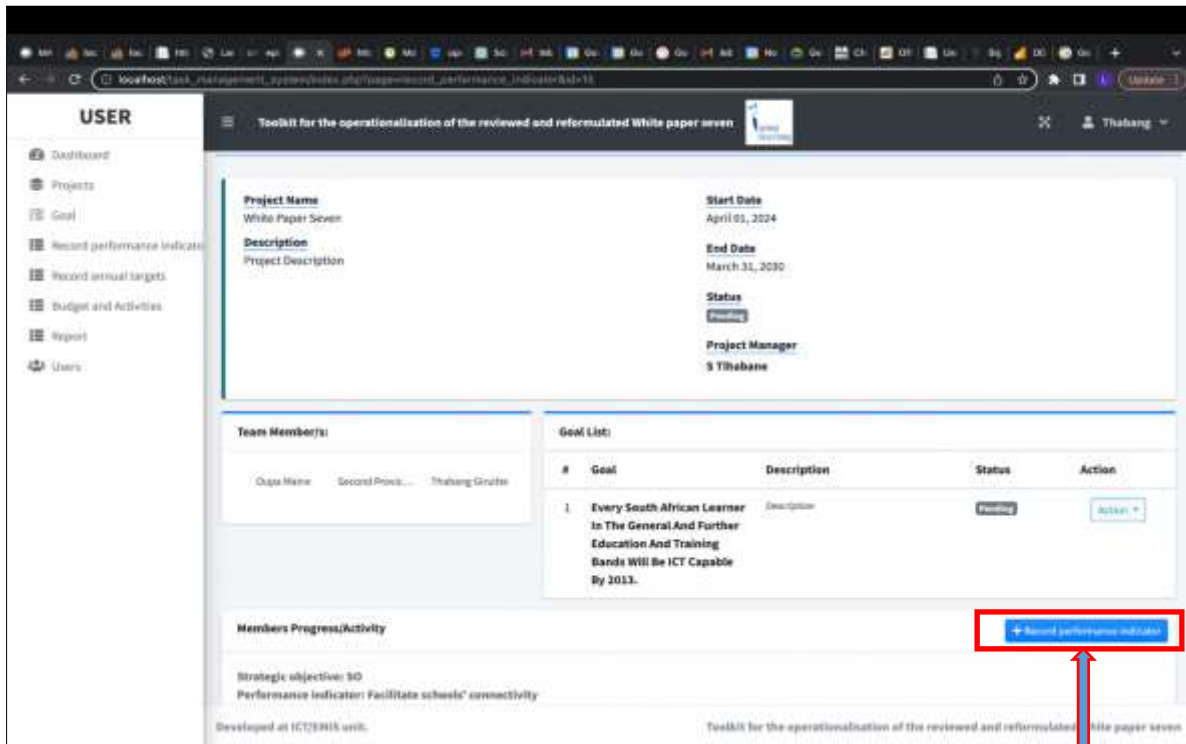
1 Total Projects

1 Total Goals

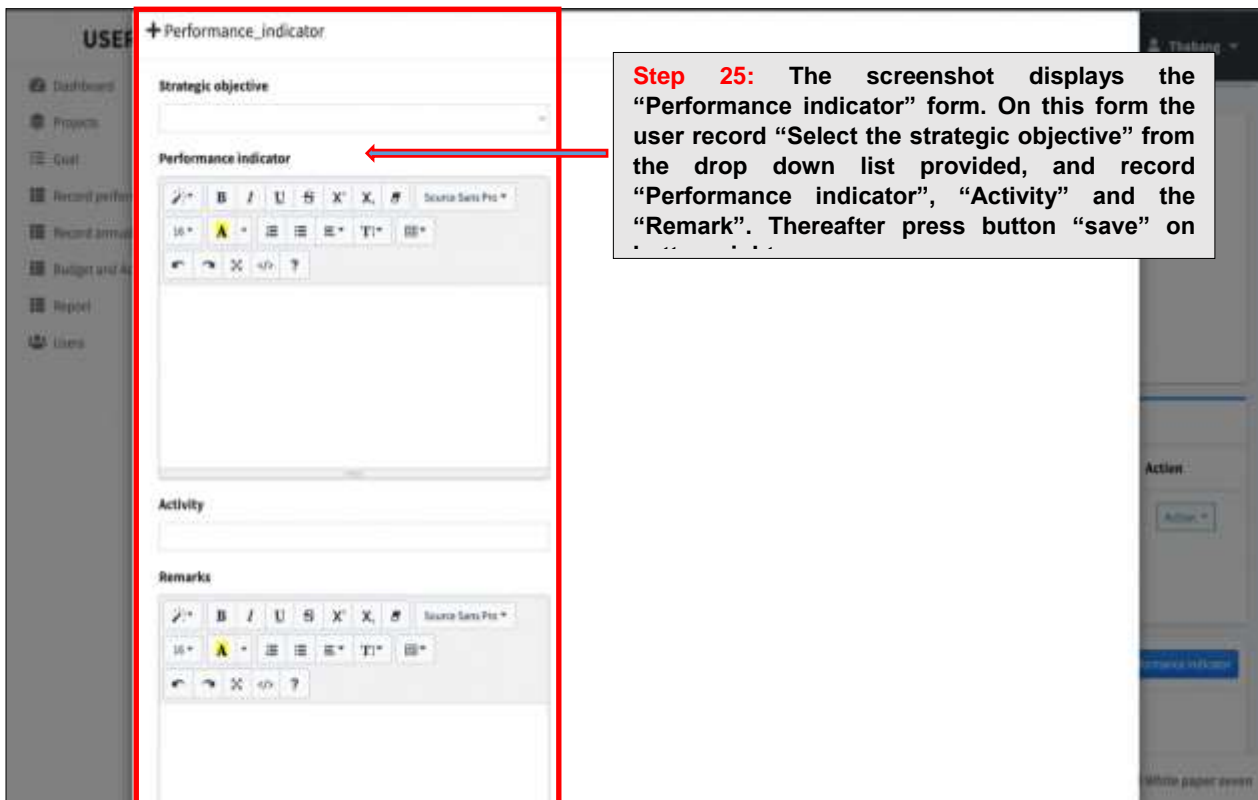
Developed at ICT/EMIS unit.

Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Step 23: Click “Record performance indicator” to access the “Performance indicator” form.



Step 24: Click “Record performance indicator” to access the form that allow the user capture performance indicator



Step 25: The screenshot displays the “Performance indicator” form. On this form the user record “Select the strategic objective” from the drop down list provided, and record “Performance indicator”, “Activity” and the “Remark”. Thereafter press button “save” on

The screenshot shows a web dashboard for a user named 'Thabang'. The sidebar on the left contains the following menu items: Dashboard, Projects, Goals, Record performance indicators, Record annual targets, Budget and Activities, Report, and Users. The 'Record annual targets' item is highlighted with a red box, and a red arrow points from it to a callout box. The main content area is titled 'Home' and displays a 'Welcome Thabang Ginxile!' message. Below this is a 'Project Progress' section with a table:

#	Project	Progress	Status
1	White Paper Seven Due: 2020-03-31	0% Complete	Pending View

On the right side of the dashboard, there are two summary cards: 'Total Projects' with a value of 1 and 'Total Goals' with a value of 1. At the bottom of the page, it says 'Developed at ICT/EMIS unit.' and 'Toolkit for the operationalisation of the reviewed and reformulated White paper seven'.

Step 26: Click “Record annual targets” to access the “Record Annual Targets” form.

USER

- Dashboard
- Projects
- Goal
- Record performance indicators
- Record annual targets
- Budget and Activities
- Report
- Users

Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Record Annual Targets

Project Name: White Paper Seven
Start Date: April 01, 2024
Description: Project Description
End Date: March 31, 2030
Status: Pending
Project Manager: S Tihabane

Team Member/s: Oupa Mairi, Second Provic..., Thabang Gruitse

Goal List:

#	Goal	Description	Status	Action
1	Every South African Learner In The General And Further Education And Training Bands Will Be ICT Capable By 2013.	Description	Pending	Action

Members Progress/Activity

+ Record annual targets

Developed at ICT/EMIS unit. Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Step 27: Click “Record annual targets” to access the form that allow the user capture annual targets details.

Step 28: The screenshot displays the “Annual target” form. On this form the user record “Select the activity” from the drop down list provided, and record “Annual target”, “Start date”, “End date” and the “Remark”. Once all the details are captured the system allows the

USER

- Dashboard
- Projects
- Goal
- Record performance indicators
- Record annual targets
- Budget and Activities**
- Report
- Users

Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Add Activities

Project Name
White Paper Seven

Start Date
April 01, 2024

Description
Project Description

End Date
March 31, 2030

Status
Pending

Project Manager
S Tlhabane

Team Member/s:

Oupa Maine Second Provic... Thabang Girulitte

Goal List:

#	Goal	Description	Status	Action
1	Every South African Learner In The General And Further Education And Training Bands Will Be ICT Capable By 2013.	Description	Pending	Action

Members Progress/Activity

+ Add activities and budget

Developed at ICT/EMIS unit. Toolkit for the operationalisation of the reviewed and reformulated White paper seven

Step 29: Click “Budget and Activities” to access the “Add Activities” form.

Step 30: Click “Add activities and budget” to access the form that allow the user capture the details of the activities and budget.

+ Budget

Annual Target

Quarter

Activity

Budget for activity

Remarks

Step 31: The screenshot displays the “Budget and Activities” form. On this form the user select the “Annual Target” and the “Quarter” from the drop downs list fields provided followed by “Activity”, “Budget for activity”. Once all the details are captured, the system allows the user to press button

Save **Cancel**

K1: USER MANUAL FOR THE WEB-BASED TOOLKIT

**DRAFT AGENDA
HEDCOM SUBCOMMITTEE ON e-EDUCATION MEETING
17 -18 MAY 2023
222 Struben Street Vryburg**

**CHAIRPERSONS:
MS [REDACTED] TY DIRECTOR-GENERAL BRANCH D
MR B [REDACTED] NG DEPUTY DIRECTOR-GENERAL BRANCH BI**

ITEM NO.	DISCUSSION TOPIC		RESPONSIBILITY
Day 1: 17 MAY 2023 PLENARY: ROOM B - 09:00 – 17:00			
SECTION A: PROCEDURAL MATTERS			
A.1		Opening Remarks and Welcome	Chairperson
A.2	09:00 - 09:10	Attendance and Apologies	
A.3		Adoption of Agenda	
A.4	09:10– 09:20	Adoption of the Minutes of the Previous Meeting	ALL
A.5	09:20 - 09:30	Matters Arising from the Minutes	ALL
SECTION B: MATTERS FOR DISCUSSION			
B.1	09:30 – 10:00	Aud [REDACTED]	AG Office
BREAKAWAY SESSIONS: SECTION C: MATTERS FOR DISCUSSION			
BREAK – 10 minutes			
e-LEARNING BREAKAWAY: Room B			
CHAIRPERSON: Ms Geyer			
C.1	Web-based Toolkit: operationalisation of the reviewed & reformulation WP7	Mr Tshimanika	C.1 [REDACTED] ces
C.2	[REDACTED]	PEDs	BREAK (30 min)
C.3	[REDACTED]	[REDACTED]	[REDACTED]
C.4	[REDACTED]	[REDACTED]	[REDACTED]
C.5	[REDACTED]	[REDACTED]	[REDACTED]
C.6	[REDACTED]	ALL	[REDACTED]
C.7	[REDACTED]	ALL	[REDACTED]
Meeting Ends: 17:00			

K2: COMMENTS ON THE TOOLKIT BY e-Education HEDCOM sub-committee Members

COMMENTS ON THE WEB-BASED TOOLKIT FOR THE OPERATIONALISATION OF THE REVIEWED AND REFORMULATED WP7 BY MEMBERS OF THE HEDCOM SUBCOMMITTEE ON e-EDUCATION

DATE: 17 MAY 2023 AT DBE (PRETORIA)

Western Cape Representative: This is a very good step forwards but I think once the toolkit is provided to the DBE, it should be piloted or tested so that it can be debugged further but I think it is a very good and bold step forwards.

Free State Representative: I tend to agree with the previous speaker with regard to considering, once the tool is provided to DBE, to pilot it. I think, it is a good implementation instrument, as on a click of a button we will be able to get a sense of what is going on in the sector in terms of e-Education rollout.

Gauteng Representative: Chair, mine is not necessary a question but it can also be seen as an input. Mr Tshimanika, please tell me: are you saying that this tool can help us in terms of the many different reports that we are always asked to submit to DBE; Are you, through this tool, helping us mitigate DBE cumbersome process of collating data to the extent that this contribution can assist us and the entire sector extract any report on e-Education rollout in province without to sending a report from one person to another, to another before it reaches DBE?

North West Representative: While I also commend the system and the initiative, I just want to know if the real beneficiaries of the system, the learners, if they had a voice or input in the development of the system for them to say that the system will contribute to them.

Limpopo Representative: The first thing is to appreciate the initiative from Mr Tshimanika and Northern Cape. My submission is that once the pilot is considered, NC be included. This is on the basis that the researcher works there and it will therefore assist in improvement on the go.

Department of Basic Education1: Mine is a comment. Let me start by giving a little bit of background why the tool was presented today. Colleagues you will recall that DBE, through me, has been over the years struggling to get reports on the implementation of ICT in education, as per WP7 prescripts. Last year in particular, we really struggle to get to know what is happening and at what cost. It is in that context, as we were getting to embark again in the process that Mr Tshimanika approached me and said, "look I am busy with research on WP7 and one of the contributions of my research to the sector is a web-based toolkit that may assist the sector in managing and reporting on the implementation of WP7. Upon seeing the product through the first presentation that was made to DBE officials only, DBE and Mr Tshimanika agreed to present today in this forum in order to get the feel but also inputs, if any, to improve the system before it is end up to DBE and sector as a whole. As you can see colleagues, the system has the ability to produce multiple reports which is very positive to the sector. I request that once the system is end-up to DBE,

provinces should avail themselves as candidate for piloting the system. Thank you to Mr Tshimanika and all involved.

Department of Basic Education2: Mine is just a comment too. I want to first start by appreciating Mr Tshimanika presentation because many are times when people do research but there are only papers presented, not anything tangible but only theorizing. Let me give you a background, right now the country is celebrating the achievement of this Professor from NMU (Nelson Mandela University) who is, today making history throughout the world but was not accepted as a sector. I really want to commend Mr Tshimanika in what he is doing as he is actually showing us that instead of seating in one's corner, as people do, developing stuff that are not shared with anyone. Like now we are saying people are moving with ChatGPT which contribute to others. Mr Tshimanika is one of those who also, through this tool, is saying I need to contribute to the sector. I really commend this contribution and think it should be put to use. When I look at this tool, I see how it will assist. Remember colleagues, we are running national project, such as the USAO (Universal Service Access Obligation) which require provinces to report on, but it has always been a challenge. This tool provides an answer to many of our implementation challenges of project. I therefore think this tool will add value in the work that we are doing, once end-up, of course we will start by piloting it. Once again thank you Mr Tshimanika.

K3: MINUTES OF MEETING HELD WITH DBE ON THE WEB-BASED TOOLKIT

Guideline for the Review and Reformulation of white paper seven:

MEETING SUMMARY

DATE: 5 APRIL 2023

TIME: 11h00 to 12h30

ATTENDANCE:

DBE:

Researcher:

- K. Tshimanika (Mr)

Contributors to the development of the tool:

- Layton Wildt (Mr)
- Oupa Maine (Mr)

TRANSCRIPT OF THE MEETING

- The transcript is a conversation between colleagues discussing the possibility of starting a meeting despite experiencing load shedding. They introduce themselves and discuss a tool they have developed as part of their research on reformulating White Paper Seven. The tool is designed to assist the sector in operationalizing the policy, and they present it to their colleagues at DBE for

feedback. There are some questions about whether or not the participants are involved in the study, but it is clarified that they are not participants but rather stakeholders who will benefit from the tool.

- The transcript is a conversation between Claude Tshimanika and Neo Mthobi regarding the development of a tool for their sector. They are joined by Layton Wildt, who demonstrates how to use the system as an administrator. The system allows for the creation of projects, goals, and strategic objectives assigned to different staff members at various levels within the organization. The goal is to make South African learners ICT capable by 2013.
- The transcript discusses the development of a system for managing education projects. The system consists of three user levels: administrator, national project manager, and provincial project manager. The administrator creates the project and assigns strategic objectives to it. The national project manager logs in with their credentials and onboards the provincial project managers who will be responsible for onboarding staff according to strategic objectives. Once staff members are onboarded, budget allocation can occur at DBE level, with conditional grants being allocated to provinces by the national project manager. Provinces then report back on spending using the system, which allows for consolidation at DBE level. Bugs are still being worked out of the system before full implementation occurs.
- The transcript is a presentation of a new system for assigning and tracking strategic objectives and budgets to individual provinces for the project and further to individual strategic objective of the project. The presenter, Layton Wildt, explains how to assign strategic objectives using the system's interface and how to allocate annual budgets for projects and strategic objectives. There are also discussions about who is developing the solution, what software is being used, training requirements, and documentation. Overall, the participants see potential in the solution but request more information to provide feedback on improving it.
- The transcript is a discussion about a new system being developed that can be used to manage and track work done in provinces. The system has potential to replace current reporting methods. It will have different levels of access and generates reports based on strategic objectives. The issue of signatures for approval has not been fully considered yet, but there will be space for signatures on printed reports which can then be submitted after. The DBE will have access to all reports generated by the system.

Outline:

-
- I have identified the following chapters from the transcript with their respective timestamps:
 - 1. Introduction and Purpose (07:01-14:06)
 - 2. Presentation of Tool (14:46-17:41)
 - 3. Demonstration of Tool (21:20-56:26)
 - 4. Report Consolidation and Signatures (1:09:04-1:16:33)

- 5. Testing and Future Meetings (1:20:59-1:25:52)

Notes:

- Meeting to present a small product arising from a 5-year study on guidelines for reviewing and reformulating White Paper Seven policy
- Proposed steps for reviewing policy
- Short introduction given before presentation
- Tool presented as part of research on White Paper Seven
- System flow explained for assigning strategic objectives and adding remarks
- Reports can be printed at every level of access and generated according to access level
- Monthly and annual reports required, tool can simplify report compilation
- Paperwork may not be ready at start of implementation
- Notes taken during meeting for future reference
- Input on tool to be given before next meeting
- Meeting agenda to be set

Action items:

1. The researcher to continue the development by taking into consideration inputs submitted by DBE officials in order for the web-based tool to assist with the operationalization of White Paper Seven.
2. The researcher will submit the proposed guidelines to DBE for consideration.
3. The researcher will share more information about the project and seek feedback from colleagues in future meetings.
4. The researcher will keep colleagues abreast of every stage of the tool's development.
5. The researcher will provide colleagues with access to the toolkit before future next presentation to the HEDCOM subcommittee in e-Education, scheduled for 17 – 18 May 2023 for endorsement and further inputs by all members of the subcommittee.