Enhancing teachers' curriculum as praxis: a self-directed learning capability approach

MC Verster

iD orcid.org/0000-0001-8356-3164

Thesis accepted for the degree *Philosophiae Doctor* in *Curriculum Studies* at the North-West University

Promoter: Prof E Mentz

Co-promoter: Prof C Du Toit-Brits

Graduation: May 2020

Student number: 22544925

DECLARATION

I the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously submitted either in its entirety or part hereof at any university for a degree.

Maria Charlotte Verster

Verster

Signature

November 2019

Date

Doing research for a greater good

ACKNOWLEDGEMENTS

By the grace of God, and only Him, I am able to thank and express my appreciation to the following people:

ABSTRACT

ENHANCING TEACHERS' CURRICULUM AS PRAXIS: A SELF-DIRECTED LEARNING CAPABILITY APPROACH

At present, teachers' curriculum as praxis is a pivotal concept for effective curriculum implementation. My study thus focused on developing and determining the support, underscored by self-directed learning (SDL) capabilities, to assist teachers to be able to enhance their curriculum as praxis. SDL is defined by Knowles (1975:18) as the "process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes". Supporting Knowles' (1975) definition, the capability approach is concerned with individuals' actual (functionings) and potential (capabilities) welfare to become the person they would want to be (Kuklys & Robeyns, 2010:12). In my study, SDL and the capability approach were utilised to support teachers, through self-directed professional development (SDPD), to become the teachers they would want to be or could be in the 21st century, in terms of enhancing their curriculum as praxis.

To explore how teachers can be supported in enhancing their curriculum as praxis from an SDL capability approach, a qualitative study was conducted in 2019 with teachers teaching Grade 9 learners. The teachers initially participated in individual semi-structured face-to-face interviews to determine their understanding of the curriculum, their stance on their curriculum as praxis, as well as their utilisation of SDL capabilities at the time of my research. After these interviews, an SDPD of three to five months (January to May 2019), followed. Follow-up individual semi-structured face-to-face interviews were then conducted to determine the possibly enhanced understanding of teachers' curriculum as praxis and their utilisation of SDL capabilities.

The results from my study showed that SDPD effectively supported the participating teachers to enhance their curriculum as praxis. Not all the participating teachers improved equally, but all the teachers showed improvement regarding their awareness of the choices that could assist them to enhance their curriculum as praxis.

Keywords:

Curriculum as praxis, self-directed learning, capability approach, professional development, self-directed professional development

OPSOMMING

DIE VERBETERING VAN ONDERWYSERS SE KURRIKULUM AS PRAKSIS: 'N SELFGERIGTE LEERVERMOËBENADERING

Deesdae is onderwysers se kurrikulum as praksis 'n deurslaggewende begrip vir doeltreffende kurrikulumimplementering. My studie het op die ontwikkeling en omskrywing van die ondersteuning, wat deur selfgerigte leervermoëns beklemtoon word gefokus ten einde onderwysers daarin te ondersteun om hulle kurrikulum as praksis te verbeter. Selfgerigte leer (SGL) word deur Knowles (1975:18) gedefinieer as 'n proses waartydens 'n individu die inisiatief neem, met of sonder die hulp van ander, om leerbehoeftes te identifiseer, leerdoelwitte te formuleer, menslike en niemenslike hulpbronne vir leer te identifiseer, gepaste leerstyle te kies en te implementeer, en leeruitkomstes te evalueer. Ter ondersteuning van Knowles (1975) se definisie, ondersoek die vermoënsbenadering individue se werklike (funksionerings) en potensiële (vermoëns) welsyn om die persoon te kan wees wat hulle wil wees (Kuklys & Robeyns, 2010:12). In my studie is SGL en die vermoënsbenadering gebruik om onderwysers te ondersteun deur middel van selfgerigte professionele ontwikkeling (SGPO), om die onderwysers te kan word wat hulle in die 21ste eeu wil wees of kan wees, wat betref die verbetering van hulle eie kurrikulum as praksis.

Om ondersoek in te stel na hoe onderwysers ondersteun kan word om hulle kurrikulum as praksis te verbeter deur middel van 'n SGL-vermoëbenadering, is 'n kwalitatiewe ondersoek in 2019 gedoen met onderwysers wat graad 9-leerders onderrig. Die onderwysers het aanvanklik aan individuele semi-gestruktureerde persoonlike onderhoude deelgeneem om hulle begrip van die kurrikulum, hulle siening van hulle kurrikulum as praksis, en hulle gebruik van SGL-vermoëns ten tye van die navorsing te bepaal. Ná die onderhoude het 'n SGPO van drie tot vyf maande (Januarie tot Mei 2019) gevolg. Individuele semi-gestruktureerde persoonlike opvolgonderhoude is daarna gevoer om die moontlike verbeterde begrip van onderwysers se kurrikulum as praksis en hulle gebruik van SGL-vermoëns te bepaal.

Die resultate van my studie het aangetoon dat SGPO die deelnemende onderwysers doeltreffend ondersteun het om hulle kurrikulum as praksis te verbeter. Nie al die deelnemende onderwysers het ewe veel verbeter nie, maar in die lig van hulle aanvanklike siening en begrip van die keuses wat hulle kan ondersteun om hulle kurrikulum as praksis te verbeter, het al die onderwysers verbeter.

Sleutelwoorde:

Kurrikulum as praksis, selfgerigte leer, vermoënsbenadering, professionele ontwikkeling, selfgerigte professionele ontwikkeling

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

ATP   Annual Teaching Plan

CAPS   Curriculum and Assessment Policy Statement

DBE   Department of Basic Education

ICT   Information and Communication Technology

NCS   National Curriculum Statement

NWU   North-West University

SAMS   School Administration and Management System

SDL   Self-Directed Learning

SDPD   Self-Directed Professional Development

CHAPTER 1
AN ORIENTATION TOWARDS THIS STUDY

1.1   INTRODUCTION AND GENERAL PROBLEM STATEMENT

> Currently, schools are being affected more by rapid change than slow change. We are experiencing rapid change not only in our knowledge bases of how the brain functions and how learning occurs, but also in changes in the demography of the country and the increasing diversity of groups within the general society. Rapid change is occurring in family backgrounds and structure, subcultures, and community groups. Cultural pluralism is exploding and competing voices are gaining agency. Additionally, educational technology also is exploding, having a greater impact on curricula and their implementations (Ornstein & Hunkins, 2018:262).

School learners must be prepared for ongoing, unpredictable and rapid changes in the world; therefore, they need specialised as well as general knowledge to be able to think independently and imaginatively (Esteve, 2000:197; Janks, 2014:10; Yek & Penney, 2006:1). Yek and Penney (2006:19) postulate that education and training cannot be reactive towards content that changes constantly, but that learners should be informed by and shaped with a mind-set and values that will equip them with the knowledge and life skills to face the challenges of life. Therefore, the constant change that the world is experiencing holds concerns and implications for the way(s) in which teachers should teach (Bernhardt, 2015:1; Esteve, 2000:197; Ornstein & Hunkins, 2018:330; Yek & Penney, 2006:19). Saks and Leijen (2014:190) also emphasise the remarkable change that the world is experiencing, especially because of the undetermined burst of information, which requires special skills to adapt and survive. Forty five years ago, Knowles (1975:15) commented on the tragedy that people had not learned how to learn without being taught. His concern was based on the premise that the world is changing rapidly, and that rapid change would be the only stable characteristic of the strange new world people were entering (Knowles, 1975:15).

Considering the rapidly changing world of the 21st century, Kay (2010:xvii) explains that "[d]oing well in school no longer guarantees a lifelong job or career as it did for previous generations." He elaborates that only people, including teachers, who can mediate constant change with knowledge and skills, will succeed in life because they are able to reinvent themselves (Kay, 2010:xvii). In his view, people who are competent in 21st-century skills will be capable of constant learning and of adjusting to change (Kay, 2010:xvii). Bernhardt (2015:1) emphasises that the

educational demands of the 21st century "require novel and different teaching practices". However, the articulation of important skills is only the first step, and it cannot be assumed that teachers will "break out of the 20th century box" without continuous self-development (Kay, 2010:xxv). Knowles (1975:17) also emphasises that the ability to learn on one's own is a basic human competence "that has suddenly become a prerequisite for living in this new world". Teachers should have a clear understanding of the meaning of being a learner in the 21st century, which is practical and important for developing an understanding of the experience of the learning process within this pedagogical framework (Bernhardt, 2015:1).

Contemplating the crucial problem of how learners should be educated in and for the 21st century (Janks, 2014; Knowles, 1975; Ornstein & Hunkins, 2018; Saks & Leijen, 2014), it is imperative to consider how the South African school curriculum has developed and changed over the past 25 years. The curriculum development process must be understood in order to gather some insight regarding the position of teachers in South Africa, especially by contextualising the lack of support for teachers to adapt between different curriculum movements. The document, "Action Plan to 2014: Towards the Realisation of Schooling 2025" published by the Department of Basic Education (DBE) (2011b:108) explains the experiences and positions of teachers that are caught up in the unstable curriculum changes that South Africa has experienced since 1994. This document states, "many, and perhaps most, of South Africa's teachers did not receive all the training they need to cope with the responsibilities of teaching and the curriculum changes that have taken place since 1994" (DBE, 2011b:108). After the hasty development of Curriculum 2005, the implementation thereof resulted in problems, because many teachers found it difficult to understand the unfamiliar terminology and the jargon of Curriculum 2005. Consequently, they were unsure of what to teach (Carl, 2012:198; Esteve, 2000:198; Hoadley & Jansen, 2012:179, 186).

Many of the current teachers in South Africa entered the profession before 1994, and although much funding and effort went into the in-service training of teachers, the training was focused on how to make the transition to the new national curriculum and the theory of the curriculum, while other important areas, such as strengthening or updating of subject knowledge and practical ways of implementing the curriculum were excluded (DBE, 2011b:108). What is important is that teachers should take ownership of the change by adapting the culture of the classroom and school (Carl, 2012:198), by inquiring "what education enables us to do and to be" rather than only viewing education as enhancing economic productivity and employment (Walker, 2006:164).

The current intended curriculum[1] of South Africa, the Curriculum and Assessment Policy Statement (CAPS) (DBE, 2011a) is very prescriptive. Emphasising the transition from the "unstructured" outcomes-based curriculum to the current curriculum, Janks (2014:12) argues that the CAPS is overly prescriptive. Although the CAPS was aimed at making the work of teachers easier (DBE, 2011a:iii), there are concerns regarding the effectiveness of such a prescriptive intended curriculum. Janks (2014:17) explains that learners have different abilities and interests, but with prescribed pacing, there is no focus on learners' creativity, imagination and innovation. Although the DBE (2011a) emphasises the necessity of developing active and critical learning, the CAPS stipulates the content, pace and pedagogy (Janks, 2014).

Since it is expected that teachers will improve throughout their careers, they cannot passively repeat their curriculum practices every year; they should adapt (Steyn, 2013) and improve (DBE, 2011a) towards curriculum as praxis. Grundy (1987:114–116) explains that the elements of curriculum as praxis imply a dynamic interaction between action and reflection; that praxis takes place in real-world contexts; that praxis operates in interaction with the social and cultural world; that the world of praxis is constructed; and that praxis assumes a process of meaning-making of knowledge. The process of action and reflection of curriculum as praxis should be directed towards bringing forth some change together with having a critical focus (Grundy, 1987:116–117). Breunig (2005:111) explains praxis as starting with "an abstract idea (theory) or an experience, and incorporat[ing] reflection upon that idea or experience and then translat[ing] it into purposeful action". He elaborates that praxis is reflective, active, creative, contextual, purposeful and socially constructed (Breunig, 2005:111). Schwandt (2007:240–244) explains that praxis entails a practical activity, which informs the conduct of peoples' lives and affairs as part of a community. The product of the practical activity is realised in doing that activity, which should lead to "practical wisdom" (Schwandt, 2007:242). This is different from the productive activity, where "firm control or objective, impersonal, making or fabrication" is exercised to produce the result (Schwandt, 2007:242). For my study, the understanding of the practical activity, or praxis, was used. Because knowledge is constantly changing and developing, we have entered a global community of development, where teachers have a responsibility towards educating their learners for this constantly changing community. Curriculum as praxis was thus applied in the context of my study

---

[1] **Intended curriculum** refers to the planned curriculum (Carl, 2012:37), which mirrors the prescribed curriculum (Hoadley & Jansen, 2012:25). The intended curriculum constitutes national prescriptions, provincial guidelines and teaching plans; intending what should be taught (Hoadley & Jansen, 2012:25, 198), and the official curriculum of what is included in syllabi (Carl, 2012:37).

as comprising curriculum implementation[2] as well as curriculum enactment[3] because both incorporates the elements of curriculum as praxis, for which teachers are mainly responsible.

Focusing on the difficulties and struggles that teachers have experienced with the changes in the curriculum, especially in South Africa, as well as the growing expectations of living in the 21st century, my study explored how teachers can be supported in enhancing their own curriculum as praxis, while being more self-directed within a capability approach. My study was guided and underpinned by the research questions, as articulated below.

1.2   RESEARCH QUESTIONS

The main research question that guided my study was: How can a self-directed learning (SDL) capability approach enhance teachers' curriculum as praxis?

The secondary research questions that followed from the main research question were:
- What is the current position of teachers' curriculum as praxis in schools in North West, a province in South Africa?
- What is the current position of teachers in North West with regard to their SDL capabilities?
- What is needed in the 21st century in terms of SDL capabilities to enhance teachers' curriculum as praxis?
- How can teachers be supported regarding utilising SDL capabilities to enhance their curriculum as praxis?

The research questions were answered from the review of the body of scholarly work as well as the empirical process of my study. The first secondary question is addressed in Chapter 2, during the discussion of the empirical research, and in Chapters 5 and 6 (see 5.6, 6.3.1). The second secondary question is answered in Chapter 3, during the discussion of the empirical research, and in Chapters 5 and 6 (see 5.6, 6.3.2). The third secondary question is answered from the review of the body of scholarly work in Chapters 2, 3 and 6 (see 3.6, 6.3.3). The fourth secondary question is answered in Chapter 3, during the discussion of the empirical process as well as in Chapters 5 and 6 (see 5.6, 6.3.4).

---

[2] **Curriculum implementation** refers to the application phase of core syllabi as well as the school's broad curriculum, subject curriculum and lessons (Carl, 2012:134).

[3] **Enacted curriculum** refers to curriculum-in-practice, being broader than just the plan of the curriculum (Hoadley & Jansen, 2012:32). It constitutes the learning, or what happens to the plan, while being in the context of the school and teaching (Hoadley & Jansen, 2012:32, 198). Carl (2012:37) speaks of the **operational curriculum,** which constitutes teachers' mediation of the intended curriculum.

1.3   AIMS OF THE RESEARCH

The main aim of this research was to explore how an SDL capability approach can enhance teachers' curriculum as praxis.

The secondary aims of this research were to:
- explore the current position of teachers' curriculum as praxis in schools in North West, a province in South Africa;
- determine the current position of teachers in North West with regard to their SDL capabilities;
- understand what is needed in the 21st century in terms of SDL capabilities to enhance teachers' curriculum as praxis; and
- determine how teachers can be supported in utilising SDL capabilities to enhance their curriculum as praxis.

1.4   REVIEW OF THE BODY OF SCHOLARLY WORK

The key concepts that emerged from the body of scholarly work and which underpinned my study are explained in sections 1.4.1-1.4.3.

1.4.1   Importance of 21st-century skills for teaching

Learners of the 21st century need "interactive pedagogical experiences" (Bernhardt, 2015:1) to prepare them for solving complex problems, adapting to changing circumstances and utilising technology for creating opportunities, networking with other individuals and organising in novel ways. Many years ago, Knowles (1975:15) proclaimed that the "main purpose of education must now be to develop the skill of inquiry". In relation to the skill of inquiry, Kay (2010:xxiv) states that the goal and vision for 21st-century learning is situated in reality. Bernhardt (2015:1) postulates that the ways of communicating with one another, accessing and sharing information and processing knowledge have been altered completely. The implications of this rapidly changing world for learning are not only relevant to learners in schools, but have vast implications for teachers, because "[e]ducation – or, even better, learning – must now be defined as a lifelong process" (Knowles, 1975:16). Esteve (2000:198) explains that more complex teaching activities are emerging where teachers must cope with changed classrooms. He elaborates on 12 basic indicators that characterise the past 20 years' educational change of which the pressing need

from teachers to improve curriculum as praxis is vital, because it influences the social context of the classroom where the intended curriculum is enacted (Esteve, 2000:199).

The Partnership for 21st Century Skills developed a framework for 21st century learning to outline a vision for a 21st-century education system (Kay, 2010:xv). This framework (Kay, 2010:xv) comprises the following crucial parts, that were considered for my study:

- Core subjects: English, Reading, or Language Arts; World Languages; Arts; Mathematics; Economics; Science; Geography; History; and Government and Civics.
- 21st-century themes: Global awareness; Financial, Economic, Business and Entrepreneurial Literacy; Civic Literacy; Health Literacy; Environmental Literacy.
- Learning and innovation skills: Creativity and Innovation; Critical Thinking and Problem Solving; Communication and Collaboration.
- Information, media and technology skills: Information Literacy; Media Literacy; Information and Communication Technology (ICT) Literacy.
- Life and career skills: Flexibility and Adaptability; Initiative and Self-Direction; Social and Cross-Cultural Skills; Productivity and Accountability; Leadership and Responsibility.
- 21st-century education support systems: 21st-Century Standards and Assessments; 21st-Century Curriculum and Instruction; 21st-Century Professional Development; 21st-Century Learning Environments.

Examples of skills, which are important for the 21st century, according to Bernhardt (2015:1), are digital literacy, cultural competence, inventiveness, emotional awareness, entrepreneurship, critical thinking and problem solving, which could all be included when considering the roles of teachers in the 21st century.

1.4.2 Curriculum development in South Africa

The development of the South African school curriculum constituted four major movements: the curriculum during apartheid South Africa, Curriculum 2005, the National Curriculum Statement (NCS) and the CAPS (Booyse & Du Plessis, 2014:47–48; Hoadley & Jansen, 2012). The understanding of curriculum development, comprising the planning, implementation and evaluation of curriculum, also includes the people, processes and procedures involved while constructing the curriculum (Ornstein & Hunkins, 2018:30). Carl (2012:41) explains that curriculum development comprises the phases, initiation, planning, development, testing, implementation and summative evaluation of the curriculum. The implementation phase is where the relevant design is applied in practice (Carl, 2012:42). The four main phases of curriculum

development that occurred in each of the movements of curriculum change in South Africa are: the phase of designing (initiating and planning) the intended curriculum; the implementation of the curriculum; the enacted curriculum; and the assessed curriculum.[4]

Regarding the design of the intended curriculum, in South Africa, the Minister of Education of the time usually gathers a task team to investigate and evaluate previous curriculum movements and to advise on the development of the new curriculum movement (Hoadley & Jansen, 2012:174, 180, 186, 187). In South Africa, the enacted curriculum, while being implemented, changed with the curriculum movements (Booyse & Du Plessis, 2014:47–8; Hoadley & Jansen, 2012:176). The curriculum in apartheid South Africa, was known for its authoritarianism, which emphasised rote teaching and learning, which was based on "drill and practice" while higher-order thinking received little attention (Hoadley & Jansen, 2012:171). Teachers were viewed as technicians who had to implement the prescribed sequence of content and the pace of teaching (Hoadley & Jansen, 2012:171). Teachers also reflected the "voices of authority in the classroom context" while the learners were perceived as "passive receivers of knowledge and skills" (Hoadley & Jansen, 2012:171). New terminology came with the implementation of the outcomes-based Curriculum 2005 (Chisholm, 2005:80), which included "learner-centred teaching, teacher as facilitator, [and] critical thinking" (Hoadley & Jansen, 2012:176). With the curriculum in apartheid South Africa, teachers had no part in developing the curriculum, but with the change to Curriculum 2005, teachers were expected to reinvent themselves to be able to participate in the curriculum-making process (Hoadley & Jansen, 2012:171, 176). Teachers were suddenly expected to select and sequence content to suit their learners' needs and to produce the learning materials, while they had to ensure that all their learners achieved the same minimum standards (Hoadley & Jansen, 2012:176, 181). Hence, teachers struggled with these new responsibilities and they did not undergo proper training either (see 1.1).

Criticism against the NCS included that teachers found it "difficult to identify the key concepts, content or skills to be taught" and they could not see how knowledge and skills progressed over time (Booyse & Du Plessis, 2014:47–48; Hoadley & Jansen, 2012:189). The strongest argument in the review report of the NCS focused on the "need for curriculum specification" (Hoadley & Jansen, 2012:189). From this need for curriculum specification, or content specification, the CAPS shifted to a "strongly stipulated, discipline-based curriculum" (Hoadley & Jansen, 2012:189; Janks, 2014).

---

[4] **Assessed curriculum** refers to the evaluation of what was planned to be taught and learnt and whether it was in fact taught and learnt (Hoadley & Jansen, 2012:46, 198).

In the curriculum in apartheid South Africa, the types of assessments were not varied and consisted mostly of tests and examinations, which were summative assessments (Chisholm, 2005:80; Hoadley & Jansen, 2012:171). In contrast to the examination-driven curriculum of apartheid South Africa, Curriculum 2005 and the NCS were focused on formative and continuous assessment (Chisholm, 2005:80) towards outcomes-based education (OBE) (Hoadley & Jansen, 2012:177, 178, 180, 186). The assessment standards indeed changed from Curriculum 2005 to the NCS in the sense that the NCS showed progression across grades, which was not included in Curriculum 2005 (Hoadley & Jansen, 2012:183). Currently, the CAPS comprises three different documents of which one is the National Protocol for Assessment Grades R–12 (DBE, 2012). This document states, "[t]his policy document focuses on assessment policy for both internal assessments comprising School-Based Assessment and Practical Assessment Tasks where applicable, and the end-of-year examinations" (DBE, 2012:2). Although projects, oral presentations, demonstrations, performances, practical demonstrations and so forth are recognised as formal assessment options (DBE, 2012:4), tests and examinations are still very prominent.

1.4.3 Theoretical framework: The capability approach to enhance self-directed curriculum as praxis

The capability approach, developed by Amartya Sen in the 1980s, evaluates the individual welfare of people and provides a theoretical basis for inequality, poverty and policy analyses (Kuklys & Robeyns, 2010:9). People's welfare is assessed by considering their functioning and capabilities, which constitute the individual's actual and potential activities and states of being (Kuklys & Robeyns, 2010:9). Functionings refers to what a person manages to do or be; hence, his or her achievements (Kuklys & Robeyns, 2010:10). Capability comprises the different functionings that a person can potentially achieve, while involving the freedom of the person to choose between different ways of living or exercising his or her choice in action (Kuklys & Robeyns, 2010:10; Nussbaum, 2011:18). It was important to consider both positions – functionings and capabilities – in my study to be able to determine what teachers were able to do and achieve in terms of their curriculum as praxis. Alkire (2008:28) explains the normative proposition of the capability approach as follows: when greater freedoms for people exist, progress or development can occur. Progress and development could bring forth the critical change that is needed within teachers' curriculum as praxis.

The capability approach operates at two levels, namely realised welfare (determined by functionings) and potential or feasible welfare (determined by capabilities) (Kuklys & Robeyns, 2010:12). Affirmative governmental support is required for the creation and preservation of these

capabilities (Nussbaum, 2011:7). The concerns regarding educating learners for the 21st century tie up with the question of what our teachers are able to achieve: their capabilities, when viewed from an idea of the dignity of a human being, and a life that is worthy of that dignity (Nussbaum, 2011:6–7). Esteve (2000:204) pre-empted the idea of teachers' capabilities, because he explains that teachers sometimes "feel vulnerable and insecure" when they know about the advances and developments occurring every day. Nussbaum (2011:18) explains the capability approach as considering each person individually, not only regarding the total or average well-being, but also in terms of the opportunities available to each person. Regarding this individual approach, in my study, each individual participating teacher contributed immensely towards this qualitative study.

The capability approach was thus utilised for exploring the teachers' curriculum as praxis. Saks and Leijen (2014:192–193) explain that with SDL, the learner (in my study, the teacher) is involved in designing the learning environment that will include the total curriculum as praxis of the teachers. This learning environment, which incorporates the teacher's design, is the teacher's own curriculum as praxis.

1.5   RESEARCH DESIGN

The design of the research is discussed in this section. This research design of my study was underpinned by a realist evaluation philosophical orientation and basic qualitative research as methodology. The way(s) of sampling (see 1.5.3), together with the methods of data generation and of data analysis (see 1.5.4-1.5.5) are also elaborated below. The ethical considerations and procedures of my study are also discussed (see 1.5.6).

1.5.1   Philosophical orientation: Realist evaluation

The philosophical orientation for my study was that of realist evaluation (Pawson, 2013:13). Pawson (2013:15) explains that realist evaluation aims to inquire "what works for whom in what circumstances" or more broadly "what is it about a programme that works for whom, in what circumstances, in what respects, over which duration and why". The programme in my study was the self-directed professional development (SDPD) that formed part of the intervention of this study and the influences thereof for each individual participating teacher. Ogrinc and Batalden (2009:662) explain that realist evaluation is an emerging model that shows promise for the evaluation of educational interventions, or the 'programme' to which Pawson refers.

1.5.2   Basic qualitative research as methodology

In this study I followed a basic qualitative research methodology (Merriam & Tisdell, 2016:19, 23) because real-world settings were studied to discover the ways in which people cope with and thrive in these settings, and to become more aware of the contextual richness of people's lives in everyday working contexts (Yin, 2011:3). Five features of qualitative research were adhered to throughout my study; these are explained in Chapter 4 (see 4.3).

1.5.3   Sampling

Robinson's (2014:25) four steps of sampling in interview-based qualitative research were utilised for sampling in my study. These four steps are: defining a sample universe, deciding on a sample size, selecting a sampling strategy, and sourcing of the sample. The sample universe for my study was the North West Province of South Africa and the sample size was 36 teachers teaching grade 9 learners. The sample strategy was stratified sampling, because the four departmental school districts of the North West Province were all included. Three schools per district was then randomly selected after which the sourcing of the sample occurred through an informal introduction at each selected school. Teachers were then allowed to decide whether they would want to volunteer to participate in this research. These four steps are further elaborated in Chapter 4 (see 4.4).

1.5.4   Methods of data generation

Three phases of data generation occurred in this research. The first phase was the pre-SDPD individual face-to-face semi-structured interviews, which focused on determining the participating teachers' positions regarding their curriculum as praxis as well as their SDL capabilities. The second phase was the SDPD intervention, which aimed at enhancing the participating teachers' SDL capabilities and consequently also their curriculum as praxis. The final, third phase, was the post-SDPD individual face-to-face semi-structured interviews. During these interviews, teachers were probed about the SDPD to determine their position regarding their SDL capabilities and curriculum as praxis again. These three phases of generating data and the relevance of each are also elaborated in Chapter 4 (see 4.5).

The trustworthiness of the data from my study, and how I adhered to credibility, transferability, dependability and the confirmability is also addressed in Chapter 4 (see 4.7).

1.5.5   Method of data analysis: Discourse analysis

In accordance with the confirmability verifications of my study, a paper trail of six classes of data was developed and preserved (see 4.6, 4.7.4). The interview and SDPD data of each teacher was kept together but separated according to each method of data generation.

Discourse analysis was applied for analysing the meaning of the spoken as well as the written word (Hyland & Paltridge, 2011:1; Nieuwenhuis, 2009b:102; Paltridge, 2006:2). In my study, the spoken word comprised the transcriptions of the pre- and post-SDPD interviews and the written word consisted of the SDPD data. Discourse analysis may include additional critical and theoretical considerations for analysing institutionalised ways of thinking, which also define the social lives of people (Hyland & Paltridge, 2011:1). Discourse analysis is further concerned with the effect of language during engagements between the world and people (Hyland & Paltridge, 2011:1). These language engagements shape social, political and cultural formations within a society (Hyland & Paltridge, 2011:1).

The discourse analysis was positioned towards language formations that emanated from the data regarding the teachers' SDL capabilities in relation to the enhancement of their curriculum as praxis.

1.5.6   Ethical considerations

The ethical soundness of any research is crucial (Merriam & Tisdell, 2016). Therefore, the ethical requirements of the Faculty of Education, North-West University (NWU), as well as the Department of Education and Sport Development of the North West Province were adhered to. After ethical clearance was granted from the NWU (see Addendum D) and the Department of Education and Sport Development of the North West Province (see Addendum E), the school principals and the School Governing Body (SGB) of the selected schools were contacted (see Addendum F). After these role players granted permission for the specific school, the informal introduction at each school was organised. Further specifications are elaborated in Chapter 4 (see 4.8).

1.6   CONTRIBUTION OF THIS STUDY

At present, not much research is being conducted on SDL to enhance teachers' curriculum as praxis. My research thus contributes to the body of scholarly work regarding the possible enhancement of teachers' curriculum as praxis, while considering teachers' SDL capabilities. A

further contribution is made regarding the enhancement of teachers' curriculum as praxis through the extension of their SDL capabilities within the 21st century, especially for teachers in the North West Province of South Africa. My research also contributes specifically to the knowledge base of the Research Focus Area Self-Directed Learning of the Faculty of Education of NWU.

1.7   STRUCTURE OF THE THESIS

The structure of this thesis is as follows:

Chapter 1:   An orientation towards this study

Chapter 2:   Curriculum as praxis for teachers of the 21st century

Chapter 3:   A self-directed learning capability approach

Chapter 4:   Research design and methodology

Chapter 5:   Data presentation, discussion and consolidation

Chapter 6:   Conclusions and recommendations

CHAPTER 2
CURRICULUM AS PRAXIS FOR TEACHERS OF THE 21ST CENTURY

2.1   INTRODUCTION

In Chapter 1, I sketched the overview of my study. Chapters 2 and 3 will now follow with the discussion of the relevant body of scholarly work – the conceptual framework, underpinned by the capability approach as theoretical framework, will be analysed and examined. Chapter 2 will present an extensive explanation of the concepts 'curriculum' and 'praxis', with an elaboration on the ways in which these concepts have been infused into education in the past and how they informed the use of curriculum as praxis in 21st-century education, as applied in my study. Chapter 3 will continue with the discussion regarding self-directed learning (SDL), as needed for teachers' curriculum as praxis in the 21st century. Chapter 3 will then conclude with an elaboration on the use of the capability approach as theoretical framework. My research is situated within the context of the 21st century; therefore, exploration was needed regarding the enhancement of teachers' curriculum as praxis, within an SDL capability approach (see 1.2). The context of the 21st century is important throughout the discussions of my study, because it directed and focused the argumentation of my study, as was also discussed earlier (see 1.1).

2.2   CLARIFICATION OF THE CONCEPTUAL FRAMEWORK OF THIS STUDY

My reasoning for introducing the following literature chapters (Chapters 2 & 3) with the conceptual framework is to provide a clear perspective of how these chapters were approached. Grant and Osanloo (2014:16) argue that there is a distinct difference between the conceptual and theoretical framework of a study, although the explanation of the conceptual framework is embedded in the discussion of the theoretical framework. The discussion of the conceptual and theoretical frameworks for my study will be spread over two chapters (Chapters 2 & 3), but both the theoretical and conceptual frameworks were considered throughout my study. The concepts of curriculum and praxis within the context of the 21st-century education will be the focus of this chapter (Chapter 2) to build the argument towards SDL, and an SDL capability approach to enhance teachers' curriculum as praxis (Chapter 3).

A conceptual framework emanates from ideas, whether these be vague or clear, about the phenomenon to be researched (De Vos, Stydom, Fouché & Delport, 2011:35). Trafford and Leshem (2008:44) explain the conceptual framework to have developed from the body of scholarly work, and how other scholars' work has been studied and analysed. Another way of explaining a conceptual framework stems from Grant and Osanloo (2014:16) who state that it is a researcher's understanding of the best ways to explore the research problem, the direction of the research to be conducted, and the relationship between the different concepts. Ideas from other scholars will generate theoretical perspectives for one's own thinking, which will influence your choice of the research approach and methodology (De Vos *et al.*, 2011:35; Trafford & Leshem, 2008:44).

Trafford and Leshem (2008:87) explain that a conceptual framework has three different origins, which I used to support my explanation of the conceptual framework of my study. A conceptual framework (see Figure 2.1) originates from the interaction between reading, reflecting on and the assumptions made from experiences (Trafford & Leshem, 2008:85). Each of these (reading, reflecting and making assumptions) generates concepts that are interlinked, and this is where the conceptual framework then develops (Trafford & Leshem, 2008:85). Grant and Osanloo (2014:17) corroborate the ideas of Trafford and Leshem (2008:87) by explaining that the conceptual framework provides the logical development and links of the concepts, which shows how the ideas of my study relate to one another within a theoretical framework.

As indicated in Figure 2.1 the conceptual framework acts as the "mirror on how you think about your research" (Trafford & Leshem, 2008:86). Grant and Osanloo (2014:17) further inform us that the conceptual framework is not only a string of concepts, but rather an explanation about the approach to a topic or study, or as Trafford and Leshem (2008:61) explain, the "glue" that keeps the concepts interlinked and connected. Therefore, within my own diagram (see Figure 2.2), I decided to make use of cone shapes, to demonstrate how my conceptual framework focused my study.
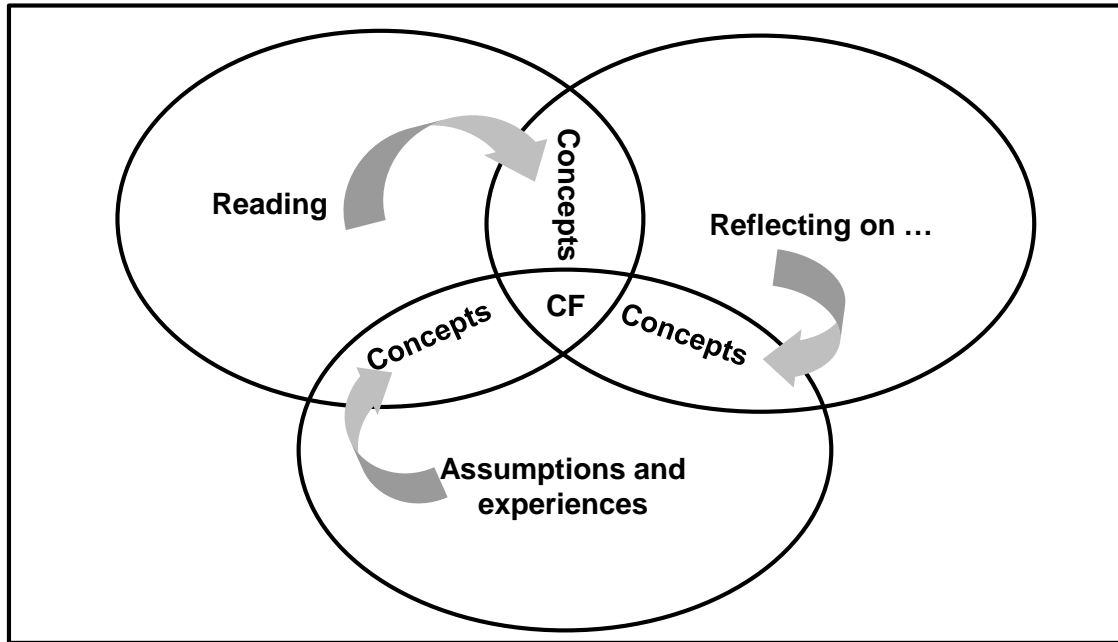
Figure 2.1: Sources for a conceptual framework [CF]
Source: Trafford and Leshem (2008:86)

Furthermore, Figure 2.2 also shows how the concepts of curriculum, praxis and SDL were bound together. The conceptual framework that emanated from reading, reflecting and the assumptions that were made reflects the three concepts of curriculum, praxis and SDL. These three concepts will be explained and elaborated on, and their dynamic interaction will be discussed to explain the conceptual framework of my study. Elaborating on these concepts will also clarify my reasoning for using the capability approach (CA) as theoretical framework.
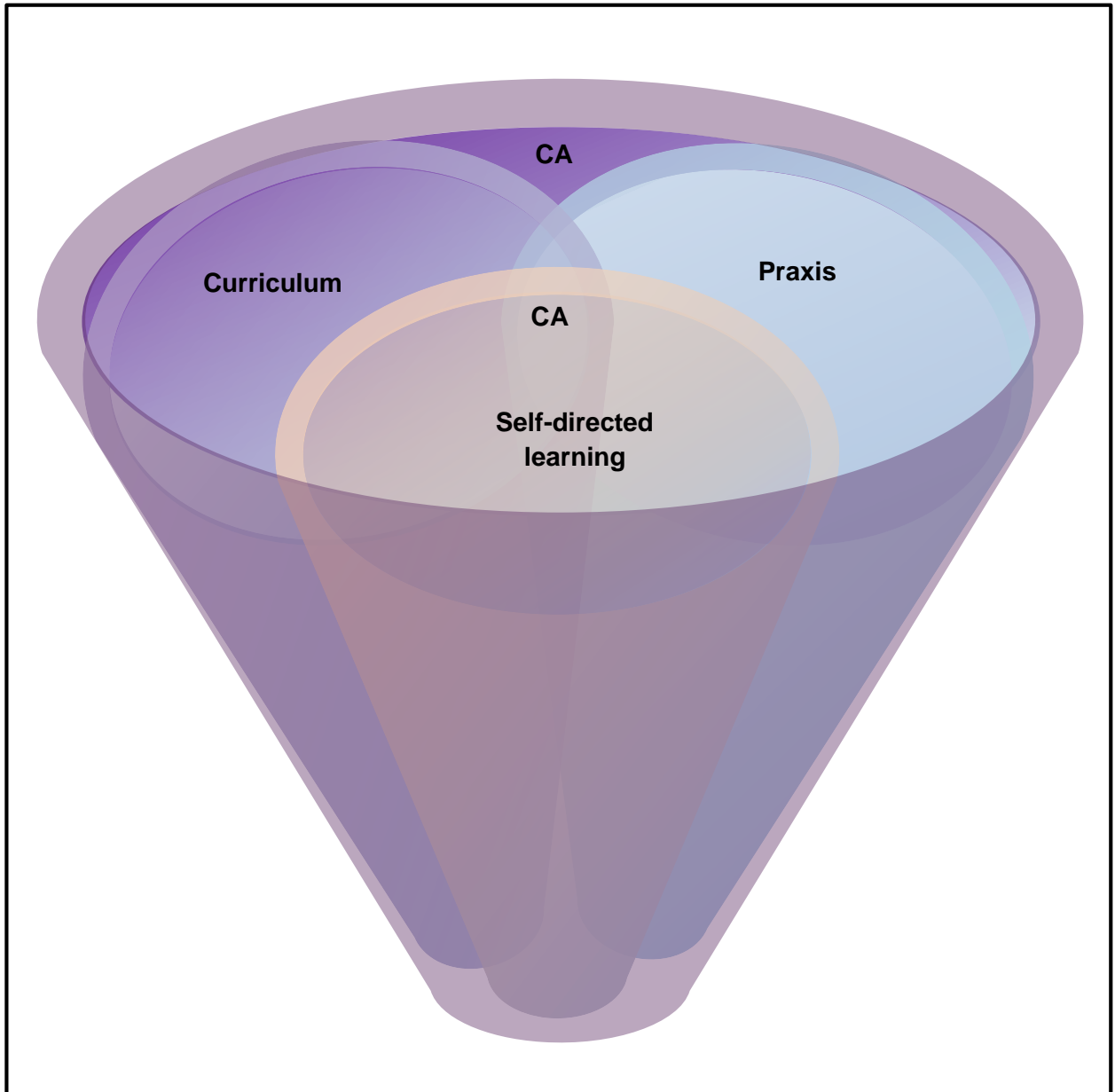
Figure 2.2: Capability approach [CA] as conceptual framework for my study
Source: Author's own conceptualisation

The first concept to be discussed is 'curriculum'. In section 2.3, curriculum philosophies will be discussed and explained in relation to the major philosophical and educational philosophical underpinning thereof, after which a definition of the concept 'curriculum' for the 21st century will be constructed. These underpinnings and explanations will then continue towards the philosophical influences on the curriculum domains of curriculum design, development and implementation. Following this argumentation, the concept of praxis will be discussed, and

consequently, ways in which the curriculum as praxis of teachers in the 21st century could be enhanced.

2.3   PHILOSOPHICAL UNDERPINNING OF CURRICULUM

When reading about the philosophical underpinning of curriculum, I realised that there are many different perspectives regarding the philosophical underpinning of education and curriculum. Gutek (2014:9) explains that curriculum naturally falls within the realm of education. Therefore, changes that occur in the philosophy of education evidently influence the philosophy of curriculum. Furthermore, some scholars argue that changes in the major philosophies have influenced educational philosophies (Gutek, 2014; Ornstein, 2011; Ornstein & Hunkins, 2018). Some other scholars (Marulcu & Akbiyik, 2014; Schiro, 2013) have written extensively about the curriculum philosophies and how these philosophies underpin curriculum. These major philosophies, educational philosophies and curriculum philosophies are discussed next to show how the curriculum has developed over many years, to get to the understanding of the curriculum as praxis, as it was applied in my study, for the 21st century. For the purpose of concluding the philosophical underpinning of the curriculum, I designed Figure 2.3, to which I will also refer throughout section 2.3.
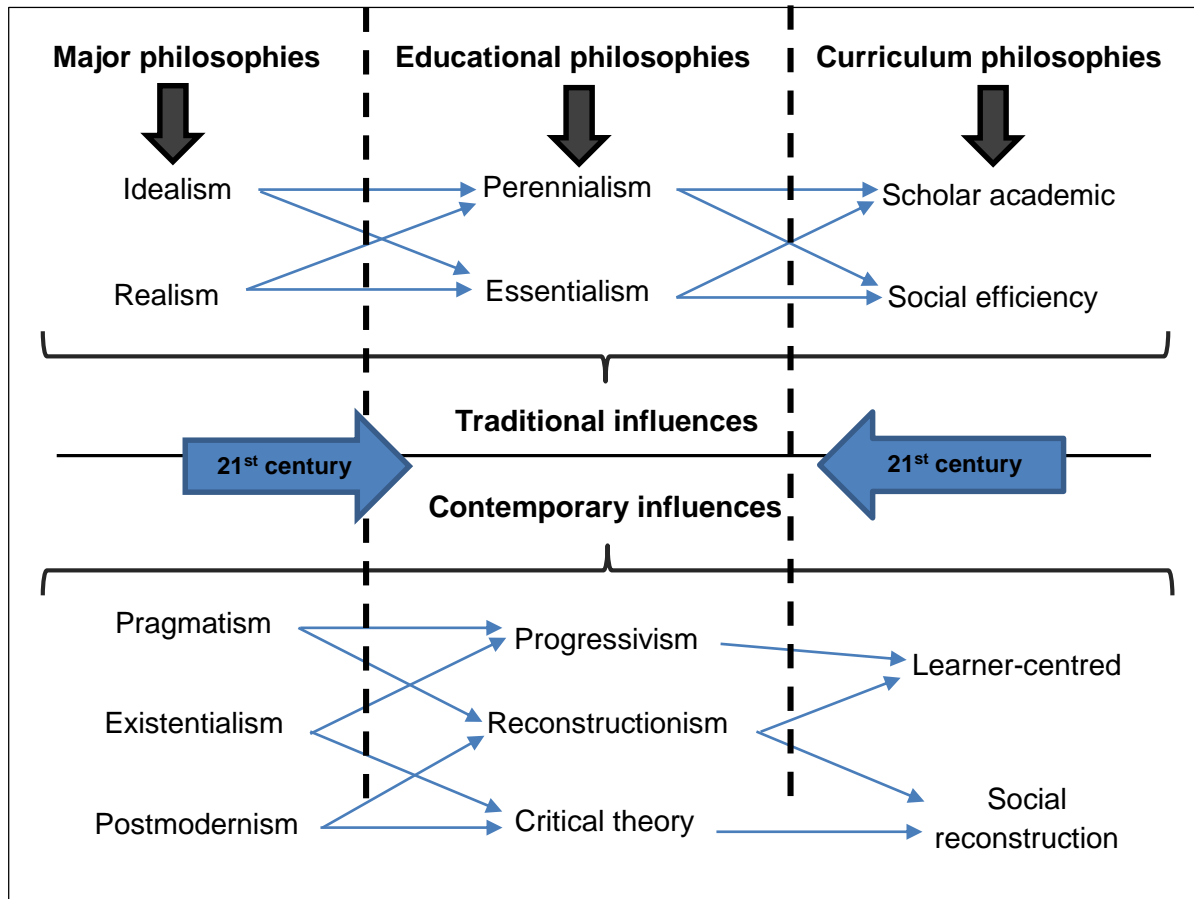
Figure 2.3: Philosophical underpinning of the curriculum
Source: Adapted from Gutek (2014), Marulcu and Akbiyik (2014), Ornstein and Hunkins (2018), Ornstein (2011), Schiro (2013)

It is important to infer from section 2.3 (see Figure 2.3) that changes in educational philosophies have occurred over several years, originating from the major philosophies. These changes also caused changes in curriculum philosophies, which had and still have, divergent influences on schools and their curricula. Therefore, the arrows in Figure 2.3 indicate the influences of the major philosophies (left) on the educational philosophies (middle) and subsequently on the curriculum philosophies (right). The major educational and curriculum philosophies also developed respectively from traditional (top) to contemporary (bottom), as indicated by the bolded arrows. For the context of my study, it was important to deduce the applicable philosophical underpinning for education in the 21st century to be most effective, as indicated by the prominent distinction from the traditional philosophies to the more contemporary philosophies (indicated by the **21st century** arrows). From the discussion to follow and as depicted in Figure 2.3, it is clear that the contemporary philosophies are more appropriate for education in the 21st century than the

traditional philosophies, because the traditional philosophies focused on finding and educating about one global truth to be true for all people. With the dynamic knowledge growth of the 21st century (see 1.1), one universal or global truth cannot be adhered to, as will emanate from the discussion to follow.

I will continue the discussion by starting with the major philosophies.

2.3.1 Major philosophies

The major philosophies that have influenced education are idealism, realism, pragmatism and existentialism (Ornstein & Hunkins, 2018:49; Slattery, 2013:306–307). Gutek (2014:16, 138–163) and Tan (2006) also include postmodernism as another philosophy of education. Idealism and realism are the traditional philosophies, while the contemporary philosophies are pragmatism and existentialism (Ornstein & Hunkins, 2018:49; Saçli Usunös, 2016:34), as well as postmodernism (Gutek, 2014; Tan, 2006). These major philosophies are explained next, focusing on what each philosophy entails, what this philosophy means for education and the curriculum and what this philosophy means for teachers.

2.3.1.1 Idealism

Idealism, one of the oldest and most enduring philosophies, can be traced back to the work of Socrates and Plato (Gutek, 2014:19–25; Tan, 2006:22). The aim of idealism was to search for truth and values that would last as absolute and universal ideas (Ornstein & Hunkins, 2018:49; Tan, 2006:22), as well as to emphasise the essential spirituality of reality (Gutek, 2014:19). Plato's beliefs were based on an unchanging world of perfect ideas and the existence of an ideal life (Gutek, 2014:23). Contradicting Plato's ideas, Rescher (1996:291) postulates that ideals "are instruments of the imagination", because they form utopian, idealised views of different affairs. He further argues that ideals aim peoples' lives towards what should be, and not towards what is or what can be (Rescher, 1996:291). Following Rescher's (1996) argument, idealism could mean to pursue an unrealistic idea of what should be reached, rather than a more realistic idea of what could be reached, especially in the rapidly changing educational environment of the 21st century (see 1.1). The ideals that people choose to follow could also influence their way of thinking and doing. Therefore, idealist teachers could choose to strive towards an idealised understanding, which might not be realistic to achieve within their teaching–learning contexts.

Idealist education holds the idea that a learner ("a disciple", i.e. a follower) is learning from the teacher (the "learned master") through dialogue (Gutek, 2014:20). Socrates proclaimed an ideal education, which stated that what is true, good and beautiful is the same throughout the world, therefore people will be cultivated who would act according to similar reasoning (Gutek, 2014:20). Idealist education aims to help learners in finding the universal truth (Gutek, 2009:30) and to appreciate extensive and lasting ideas and principles (Tan, 2006:22). This quest for finding the truth should take place within a school that exposes learners to wisdom regarding their cultural heritage in order for them to know, share and extend it through to their own personal contributions to the community (Gutek, 2014:32). The universal truth that Socrates referred to and on which idealist education focuses, is concerning for teaching–learning in the 21st century (see 1.4.1 & Figure 2.3). Confirming the discrepancy between idealist education and the 21st century, Kay (2010:xv; also see 1.4.1) discusses that teaching–learning and preparing learners for the 21st century cannot be confined by proclaiming a universal, unchanging truth. Trilling and Fadel (2009) concur that the vital skills necessary for the 21st century are:

- learning and innovation skills comprising "learning to learn and innovate, critical thinking, problem solving, communication, collaboration, creativity and innovation;
- digital literacy skills [comprising] information literacy, media literacy, [and] ICT literacy; [and]
- career and life skills [consisting of] flexibility, adaptability, initiative, self-direction, social and cross-cultural interaction, productivity, accountability, leadership and responsibility".

With regard to teachers specifically, Trilling and Fadel (2009:124) state that a top priority for the successfulness of any transformation should include professional development of teachers. Thus, within the 21st century, teachers themselves have to become 21st-century learners, where they can learn from inquiry, design and collaboration (Trilling & Fadel, 2009:124).

Further, Tan (2006:23) explains that cognitive development was the main focus of idealist education, while Ornstein and Hunkins (2018:49) elaborate that learning was based on the intellectual process of recalling and working with educational ideas of conceptual matter. The basic skills of the three Rs – reading, writing and arithmetic – were extremely important, and the curriculum focused on the great works of philosophy, history, literature, politics and culture (Tan, 2006:23). The idealist school curriculum endorses separate subjects and preparation where the teachers and administrators are the only knowledgeable people organising the curriculum (Gutek, 2014:34–35). These ideas of recalling and mastering the basic skills while focusing on the great works of the past, are limiting in the dynamic, innovative, creative and collaborative 21st century

(see 1.4.1 & Figure 2.3). Therefore, I agree that in the 21st century, where education should be learner-centred and active, the curriculum should not be confined to the limiting ideas of only some knowledgeable people.

When considering the requirements of the idealist teacher, Gutek (2014:37) explains that such a teacher should be a mature and model representative of a specific culture, and should have good values, love for learners, excitement and enthusiasm. The truth that the idealist teacher should always seek and find is seen as universal and could not be reliant on diverse contexts or places (Gutek, 2014:36). Thus, Rescher (1996:291) expresses concerns regarding idealism, and idealist education, because only specific values are to be fulfilled and perfected. The teacher plays a central and crucial role in assisting learners in realising the richness of their own personalities (Gutek, 2014:37), but although learners are young and immature, their personalities should not be manipulated by the teacher (Gutek, 2014:37). For the idealist teacher, the curriculum should be hierarchically organised with philosophy and theology at the top, because these are viewed as the most important (Ornstein & Hunkins, 2018:49). Rescher (1996:292) comments that these ideals are visionary, unrealistic and utopian. The absolute, eternal and universal truth that idealists are seeking opposes many approaches in education of the 21st century (Gutek, 2014:35). Therefore, to promote idealist education in the 21st century, should be examined, because idealist education contradicts many of the 21st-century characteristics, e.g. innovation, critical thinking, problem solving, communication and so forth.

2.3.1.2 Realism

Realism was developed from the ideas of Aristotle, who viewed the world in terms of objects and matter (Ornstein & Hunkins, 2018:49). These objects existed even if humans did not have any knowledge about the existence of it; therefore, the objects existed independently of humans (Holma, 2010:20; Schwandt, 2007:256). Gutek (2014:48) refers to Aristotle as the first philosopher who started using his senses for his inquiries, because he developed Plato's belief of pure ideas to applying his senses to study objects in the environment and extracting concepts from these experiences. Therefore, reality emanated from people's physical world, and knowledge was gained from people's reasoning and experiences (Tan, 2006:24). Hence, realist philosophers argue that people can learn about the world through their senses and reasoning and that everything is derived from nature and its laws (Ornstein & Hunkins, 2018:49). It is thus clear that realism progressed from the utopian ideals of idealism (see 2.3.1.1) in the sense that the environment and the objects surrounding people gained relevance in human understanding.

For Aristotle, everything had a purpose, and this purpose had to emanate from education; thus, the purpose of being human was to think (Ornstein & Hunkins, 2018:49). Gutek (2014:65) elaborated on the educational goals of realism, as comprising:

- cultivating human rationality through the studying of organised bodies of knowledge; and
- encouraging people to –
  - "define themselves by [rationally] framing their choices;
  - realise themselves by exercising their [potential] for excellence to the fullest; and
  - integrate themselves by ordering the various roles and claims of life according to a rational and hierarchical order".

The three Rs were basic to education, and lessons focused on logic and abstract thought (Ornstein & Hunkins, 2018:50; Tan, 2006:24). In realism, the curriculum comprises separate content areas, which are hierarchically ranked, as in idealism (Ornstein & Hunkins, 2018:50), because in realism, the curriculum rationale was that reality could be studied most effectively and efficiently through systematically organised subject matter (Gutek, 2014:67; Major, 2011:257; Tan, 2006:24). Gutek (2014:67) elaborates that schools could be protected from interferences by implementing prescribed policies and having expert scientists and scholars design the curriculum, but in the constantly changing 21st century, interferences (emotions and ideas of individual people), are a reality. The goals of realist education could still be quite relevant for the 21st century, but, later (see 2.3.1.3–2.3.1.5) it became clear that these educational goals are restricted by the hierarchically ranked curriculum subjects, prescribed policies and having experts design the curriculum in relation to predetermined outcomes.

As is clear from the paragraphs above, the realist teacher, as a professional, should possess the necessary subject matter knowledge and instructional skill, as argued by Gutek (2014:68), Major (2011:257) and Tan (2006:25). Therefore, the school should employ competent teachers who have the knowledge and skills of a subject and who know how to teach it to the learners who are immature in terms of the knowledge and skills and who are seeking to obtain it (Gutek, 2014:68). What the learners are interested in is not important for teaching, but rather the essentials for developing learners' reasoning, so that they can gain knowledge of the world of nature (Tan, 2006:25). The active, learner-centred approaches of the 21st century contradict these views regarding the teacher being the only person with subject matter knowledge and skills, ignoring the learners' interests, because learners' experiences and knowledge contribute to learning and meaning-making in the 21st century, through collaborations and communication (see 2.3.1.1).

Even though teachers might have had idealist or realist educational perspectives, teaching and learning still occur in their classes, even though it might not benefit learners of the 21st century optimally. Therefore, I needed to continue the exploration of the philosophical underpinnings of education and the curriculum to understand the different perspectives that teachers might embrace. Consequently, I continue my explanation of the pragmatist, existentialist and postmodernist philosophies.

2.3.1.3 Pragmatism

In the pragmatist view, reality is constantly changing, depending on peoples' observations and experiences (Ornstein & Hunkins, 2018:50; Tan, 2006:26). Rosenthal (1996:500) maintains that people are not inactive observers of the world around them anymore, such as the views of the idealists and realists, because people are actively interacting with the world in which they live while learning to understand the world. Gutek (2014:75, 78–82) concurs that Dewey (1916), a prominent educational pragmatist, rejected the idea of absolutes to be followed as universal ideas. Therefore, knowledge claims and values could not be permanent and absolute, but are rather open to be changed and revised (Tan, 2006:26). Dewey's (1916) ideas of experimental education, as incorporated in pragmatism, had immense implications for education, the curriculum and teachers, specifically because his ideas contrasted idealism and realism considerably (see Figure 2.3). Gutek (2014:88) argues that problem solving results in experience; hence, education represents life as a process of continuously reconstructing experience. For the constantly changing and expanding informational world of the 21st century, pragmatism seems to be much more applicable for preparing people for the 21st century, because it puts people in the context of the current world around them, as opposed to apparent universal, constant knowledge constructs.

Dewey (1916) argued that education should be a process of improving the human condition, through problem solving and using the scientific method (Ornstein & Hunkins, 2018:50). Rosenthal (1996:504) agrees that the natural inquisitiveness, imagination and the sensitivity of a learner should develop through the educational process. Subsequently, learners' desires should be steered towards self-controlled, goal-oriented, problem-solving activities that should encourage learners to think for themselves (Rosenthal, 1996:504). Further, because the educational process encompasses the lives of individual learners, the educational process cannot be limited to the school context (Rosenthal, 1996:504). Gutek (2014:82) and Tan (2006:26) concur that schools should assist learners to grow and therefore cannot only be academic

institutions; hence, being social is crucial in the pragmatist view of education. Because the knowledge of traditions and cultural heritage is not as important as learners' interests, needs and problems, the curriculum should be inter-disciplinary, integrated and action-oriented, rather than consisting of only specialised, theoretical subjects (Ornstein & Hunkins, 2018:50; Tan, 2006:26). Dewey (1916) and other critics of the subject matter-oriented curriculum that was applied in idealism and realism argue that such a curriculum is too abstract, because the individualised subjects are separated from the learner's interests, needs and experiences (Gutek, 2014:85–86). Keeping the dynamic context of the 21st century in mind, the pragmatist view on education seems more applicable and relevant than the traditional views of idealism and realism. Further, contrasting the traditional philosophies, pragmatism cultivates active interaction, adaptable and revisable knowledge, self-controlled, goal-oriented, problem-solving activities, and an inter-disciplinary, integrated and action-oriented curriculum to stimulate learners' inquisitiveness, imagination and sensitivity. Accordingly, Dewey (1916) questioned externally imposed discipline, opposed to internal discipline, because the latter could cultivate self-directing and self-disciplining people (Gutek, 2014:95).

Considering the pragmatist implications for education and curriculum, as discussed above, pragmatist teachers should not be confined to a textbook or a fixed body of knowledge (Tan, 2006:27). Teachers' control cannot be central anymore, because the learners as well as the learning environment are constantly changing, where universal truths are rejected (Ornstein & Hunkins, 2018:50). Gutek (2014:82) and Tan (2006:27) confirm that teachers should not control the learning situation anymore, but should rather guide the situation as a resource person and facilitator. Tan (2006:27) states that pragmatist teachers draw from topics that are interesting to the learners and to which the learners can relate; therefore, Gutek (2014:82) argues that the starting point for the teacher comprises the needs of the learners. Some of the pragmatist facilitation methods should engage learners in active learning opportunities, experiments, solving problems and building social consensus (Tan, 2006:26). Critical thinking should also be cultivated during teaching (Ornstein & Hunkins, 2018:50), which should be facilitated within an environment conducive to learning, which promotes openness and collaboration (Tan, 2006:27). Comparing pragmatist education to the important skills that are necessary for the 21st century (see 1.4.1, 2.4), it becomes clear that pragmatist education supports the development of many of these skills, for instance critical thinking, problem solving, communication and collaboration.

2.3.1.4 Existentialism

Existentialism is based on individualism, self-fulfilment (Ornstein & Hunkins, 2018:50) and issues relating to a person's existence (Tan, 2006:27). Existentialists, similar to pragmatists and contrasting idealists and realists (see Figure 2.3), reject universal and absolute ideas, and rather argue that individuals make their own choices to define themselves and therefore construct their own reality (Gutek, 2014:105; Ornstein & Hunkins, 2018:50; Tan, 2006:27). Gutek (2014:105) continues that existentialism differs from pragmatism, because existentialism questions pragmatists' dependency on the scientific method. Existentialism as a philosophy is concerned with real issues of how people deal with concrete, everyday situations by philosophising about the meaning of people's existence, being alive, in a concrete situation (Gutek, 2014:105). Thus, speculations about the universe are irrelevant, because the real question is what makes life valuable to the person living it (Gutek, 2014:105).

Regarding existentialist education, schools should be aware that each learner is free, unique and emotional, having personal fears, hopes and aspirations (Tan, 2006:27). Tan (2006:27) continues that schools should thus provide a broad education with many options for learners to explore, reflect and articulate their own personal beliefs. Therefore, Ornstein and Hunkins (2018:50–51) confirm that learners should "be free to choose how and what they study, [and] the most important knowledge is knowledge [regarding] the human condition". Because learners are not really aware of their human condition in the world while they are very young, existentialist education should probably only begin during the junior years in high school (Gutek, 2014:128). Existentialists provide no fixed curriculum, because the content and pedagogy should be determined by the needs and preferences of the learners (Tan, 2006:27–28). Education, in this sense, "should develop [a] consciousness of choices and their significance" for learners, while the curriculum should consist of experiences and subjects that would exercise freedom of choice (Ornstein & Hunkins, 2018:50). However, as Gutek (2014:129–130) argues, it is very challenging to adhere to learners' personal freedom of choice in compulsory education; therefore, a dual curriculum, comprising 'given' and 'open' areas, would be claimed by existentialists. The 'given' areas refer to subjects and skills that describe the social and physical reality of peoples' contexts, while the 'open' areas comprise raising consciousness about the human condition, freedom and choice (Gutek, 2014:129–130). The 'given' subjects are natural and physical sciences as well as mathematics and social sciences, whereas the 'open' areas are the humanities as well as fine and expressive arts (Gutek, 2014:129–130). Skills utilised in the 'given' areas are reading, writing, languages, arithmetic, research competencies and computer literacy, which help to access the

information from the given subjects, whereas the 'open' areas comprise literature, music, dance, filmmaking, film studies, creative writing, autobiography, biography, art, history, philosophy and religion (Gutek, 2014:129). Although 'given' areas have been concentrated on in the past, for existentialists, it is important to include the 'open' areas in education. The 'given' areas can only inform people; it cannot determine them, whereas the 'open' areas could lead to personal evaluation and valuation (Gutek, 2014:129–130), skills that have been lacking in the past but are now becoming increasingly relevant for the 21st century.

The existentialist teacher should respect learners' individual freedom and choice, while being open-minded and reflective (Tan, 2006:28). Existentialist teachers should also create an educational environment where teachers and learners are free to reflect, to ask questions and to engage in philosophical dialogue relating to real-life examples, issues and moral choices in life (Tan, 2006:28). These teachers should create a learning environment where learners can express their own subjectivity, because the learners, together with the teacher, have the responsibility of self-definition, which would involve learners in ethical and aesthetic dimensions of existence (Gutek, 2014:133). The Socratic method of dialogue could be used by the existentialist teacher; however, in existentialist education, the teacher does not necessarily know the answers to the posed questions (Gutek, 2014:133). Such a teacher would also realise and respect that responses from individual learners will vary, and that the best questions will be answered only when learners construct their own meaning (Gutek, 2014:133; Tan, 2006:28).

2.3.1.5 Postmodernism

Similar to pragmatism and existentialism, postmodernism disregards objective and universal knowledge of the world, as was claimed by idealism and realism (Gutek, 2014; Tan, 2006; see Figure 2.3). Furthermore, Kohn (2008:71) contends that postmodernism is marked by uncertainty and questioning of all assumptions. Postmodern values that are instilled in people are change, personal innovation, creativity, individual difference, variety of philosophical thoughts, freedom of humans from abuse, difference and discrimination (Shekarey & Rahimi, 2006:66–67). Therefore, postmodernists' time is consumed by deconstructing traditional claims of scientific objectivity, especially those in education that are based on eternal truths (Gutek, 2014:162). Craft (1997:83) strongly argues that postmodernism is transforming human society; hence, people – young and old – are increasingly faced with chaos of choice and social identity. For her, the dynamic chaos of choice influences numerous different aspects of human life, but the educational implications are even more far-reaching (Craft, 1997:83). She explains that schools and teachers are required

to support learners in understanding and surviving in their unstable and unpredictable environments, while adults should be supported in relearning appropriate knowledge, skills and competences throughout their lives (Craft, 1997:83).

Postmodernists are critical of schools where previously established and authoritative knowledge is taught to learners (Gutek, 2014:161; Tan, 2006:29). Kohn (2008:72) postulates that postmodern education "requires more art than science, more praxis than practice"; therefore, the ways of implementing the curriculum should be more critically, actively and reflectively (praxis) oriented. Gutek (2014:153) – together with Shekarey and Rahimi (2006:70) – agrees that postmodernist education should free people from domination, by being critical of current social institutions and conditions. The aim of education should be empowerment and transformation, where learners could engage in various narratives to develop their own identity and transform society through emancipating marginalised people from oppression (Tan, 2006:29). Empowerment, Grundy (1987:19) explains, comprises the ability of individuals or groups to be autonomous and responsible in taking control of their lives, which relates to curriculum as praxis as well as SDL, as will be elaborated later (see 3.4.1, 3.5). The prominent features of postmodern education, as illuminated by Shekarey and Rahimi (2006), are educational pluralism, multicultural conventions, and the creation of probable and not absolute and certain knowledge. Therefore, the postmodern curriculum produces knowledge rather than consuming it (Shekarey & Rahimi, 2006:65).

The postmodernist curriculum should break away from the traditional way of dividing subjects and rather focus on specific issues and problems, with a variety of the knowledge of the different disciplines included (Gutek, 2014:158; Shekarey & Rahimi, 2006:70; Tan, 2006:29). A curriculum organised into specific subjects is not an accurate representation of nature, but rather a representation of how classic elites traditionally constructed knowledge (Gutek, 2014:158). Evidently then, constructing an authentic education would need deconstruction and restructuring of the curriculum (Gutek, 2014:160).

The postmodernist teacher should draw from a variety of narratives, to introduce learners to the plurality of voices from both the people in power positions and those from oppressed positions (Tan, 2006:30). Consequently, learners would be able to "recognise the different constructions of reason and knowledge in specific historical contexts and learn to reflect on, reinterpret, reformulate and construct their own identities and histories" (Tan, 2006:30). The postmodernist teacher is wary of familiar terms or phrases that are used to justify the existing curriculum, such

as 'objectives', 'unbiased', 'scientific' or 'neutral' (Gutek, 2014:160). As a result, the postmodernists see the teacher as "intellectual, critical, changeable, insightful and inspiring" (Shekarey & Rahimi, 2006:71). These characteristics are important for teachers of the 21st century, in order to be able to adapt according to different requirements of the teaching–learning environment.

Kohn (2008) explains that teachers find themselves caught between the 'echoes and contradictions' of modernism and postmodernism. He elaborates that school systems and leaders pursue modernist ideals where certainty and grand narratives are adhered to, but that these were appropriate for different times and different cultures (Kohn, 2008:70). He continues that teachers are confronted with modernist pressures, while also facing postmodern consequences of rejecting modernist claims of truth, and questioning whether right and wrong could exist (Kohn, 2008:70). Teachers are endlessly presented by dilemmas of trying to do the right thing for their learners within these contradicting demands of modernism and postmodernism (Kohn, 2008:70). Therefore, the roles of both teachers and learners in education change in postmodernism (Kohn, 2008:72). Moving beyond modernism and postmodernism, teachers and learners have to construct new, undefined, applied areas of the humanities (Kohn, 2008:73). Kohn's experiences could mirror the experiences of some of the teachers participating in my research. The reality in South Africa is that teachers are faced with the responsibility of teaching a specific pre-determined intended curriculum to their learners of the 21st century (see 1.1, 1.4.2). This confusion to which Kohn refers is probably a reality for many more teachers than only Kohn. This confusion and chaos of choice are addressed in the discussions in Chapter 3 (see 3.4.2–3.4.3).

The major philosophies that were discussed in section 2.3.1 all had influences and implications for educational philosophies, as demonstrated in Figure 2.3. Although some of these influences and implications have been discussed above, it is necessary to expand the discussion further towards the educational philosophies that developed from these major philosophies. Subsequently, these educational philosophies are discussed next.

2.3.2   Educational philosophies

Each of the four educational philosophies, perennialism (see Huxley, 1945), essentialism (see Bagley, 1907), progressivism (see Dewey, 1916) and reconstructionism (see Counts, 1932), stemmed from the major philosophies (Gutek, 2014; Ornstein & Hunkins, 2018:51; Tan, 2006:30–31). Gutek (2014) and Tan (2006) include critical theory as an educational philosophy. For

Hlebowitsh (2005:58–86), these philosophies should be central in curriculum design (see 2.5.1); therefore, he distinguishes between –

- schooling in the conservative tradition (perennialism [see Hutchins, 1972] and essentialism [see Bagley, 1907]);
- schooling in the progressive tradition (experimentalism [see Dewey, 1916]);
- romantic naturalism (see Dewey, 1916);
- social efficiency (see Bode, 1938); and
- schooling in the radical tradition (social reconstructionism [see Counts, 1932] and postmodernism [see Aronowitz and Giroux, 1991]).

Each of the five educational philosophies named above will be discussed next, focusing on what each philosophy entails, what the specific philosophy means for education and the curriculum, and what the philosophy means for teachers.

2.3.2.1 Perennialism

Some scholars postulate that 'perennial', the root of 'perennialism', means evergreen, unchanging, recurrent, timeless and long-lasting (Gutek, 2014:341–342; Jacobs, 2016:87). Accordingly, perennial ideas are ideas that lasted through time and space, and survive as universal truths (Gutek, 2014:341; Tan, 2006:31). Consequently, perennialism pleas for a permanency of knowledge and values, arguing that human nature is constant, similar to what idealism and realism yielded as being true (Gutek, 2014:341–342; Ornstein & Hunkins, 2018:52–53; Tan, 2006:31; Yilmaz, Altinkurt & Çokluk, 2011:344; Zirhlioğlu & Yayla, 2016:2111; see also Figure 2.3).

According to this view, the goal of education is to develop a rational person who will uncover, know and internalise the universal truths, ideas and values (Ornstein & Hunkins, 2018:52; Tan, 2006:31; Yilmaz *et al.*, 2011:344; Zirhlioğlu & Yayla, 2016:2111). Therefore, scholars (such as Ornstein & Hunkins, 2018:52; Tan, 2006:31; Zirhlioğlu & Yayla, 2016:2111) agree that learners' intellect, reasoning and moral character were developed because, for perennialists, information and morals do not change over time or in different societies. Hlebowitsh (2005:59–60) concurs by stating that perennialism holds "a kind of one-size-fits-all mentality" that focuses on the rational, contemplative, abstract, book-driven and subject-centred approach to learning, where teachers apply strategies to drill the acquiring of skills. The materials used, learning activities and pedagogy of the teacher depend on enhancing learners' intellectual capacity by appreciating the classic

works of the past, while the learners' interests are disregarded (Tan, 2006:31). The perennial curriculum is subject-centred, relying much on defined disciplines and the teachers as authorities in their fields (Gutek, 2014:345; Hlebowitsh, 2005:59; Ornstein & Hunkins, 2018:52; Saçli Usunös, 2016:35; Tan, 2006:31). Learners in the lower grades of the school were taught basic skills in literacy and numeracy, the three Rs, after which they proceeded to study literature, philosophy, history, science, logic and mathematics (Ornstein & Hunkins, 2018:52; Tan, 2006:31; Zirhlioğlu & Yayla, 2016:2111).

Derived from the explanation above, the main focus for perennialist teachers is to develop the rationality and intellect of their learners, through the great works of the past (Saçli Usunös, 2016:35; Tan, 2006:31). Maintaining high academic standards and to gain the timeless and permanent truths of the subject skilfully, were vital in perennialism (Tan, 2006:31). Zirhlioğlu and Yayla (2016:2111) further elaborate that perennial teachers were models to the learners, by being the experts in their subject field and by taking the main responsibility in representing logical and consistent thinking.

2.3.2.2 Essentialism

Essentialism, like perennialism, stemmed from idealism and realism (Gutek, 2014:315, 324; Ornstein & Hunkins, 2018:54; Tan, 2006:32; Zirhlioğlu & Yayla, 2016:2111; see Figure 2.3). Hlebowitsh (2005:62) states, "[e]ssentialists and perennialists are brothers under the same skin", because both of these philosophies are committed to the training of subject-centred knowledge. Zirhlioğlu and Yayla (2016:2111) postulate that essentialists' absolute truths comprised information that was obtained through reasoning. Thus, the focus of essentialism was on mastering skills, facts and concepts from the basis of specific subject matter, while emphasising discipline, training, homework and serious study (Ornstein & Hunkins, 2018:54; Tan, 2006:32).

The focus of the essentialist schools is on transmitting the ultimate truths of the relevant subjects to the learners (Zirhlioğlu & Yayla, 2016:2111–2112). Other scholars confirm and elaborate that the purpose of essentialist education is to convey knowledge and the cultural heritage to future generations and along with it to train informed people (Gutek, 2014:328–329; Tan, 2006:32; Zirhlioğlu & Yayla, 2016:2111–2112). To be able to adhere to this focus and purpose of essentialist education, the curriculum is subject-centred and emphasises academic and cognitive thinking, as opposed to play and the development of the holistic child (Ornstein & Hunkins, 2018:55; Tan, 2006:32). Gutek (2014:328–329) therefore elaborates that the subjects or

academic disciplines in essentialist education are logically and chronologically planned to disregard innovative and process-oriented learning.

As a result of this restrictive curriculum, essentialism neglects some important skills to be developed in the 21st century, referring to innovative learning (see Trilling & Fadel, 2009). Process-oriented learning (Grundy, 1987) that could refer to the curriculum as practice (see 2.6.1), which developed from the restrictive curriculum as product (see 2.6.1) is also overlooked. Gutek (2014) summarises that, for idealist and realist philosophers as well as essentialist and perennialist philosophers, the views on curriculum constitute skills and subjects that are strictly organised in a systematic and sequential manner.

Similar to perennialist teachers, the essentialist teacher is viewed as the master of a specific subject (Ornstein & Hunkins, 2018:54; Tan, 2006:32). Therefore, the teacher is primarily responsible for transmitting the truths about the specific subject and the cultural heritage to the learners (Zirhlioğlu & Yayla, 2016:2112). Emanating from the discussion on the major philosophies, especially idealism and realism, these restricting ideas (see 2.3.1.1–2.3.1.2) are not beneficial for learning in the 21st century.

2.3.2.3 Progressivism

The two more pragmatically oriented educational philosophies are progressivism and reconstructionism (Ornstein & Hunkins, 2018:52, 57). Progressivism is discussed here, followed by reconstructionism. Progressivism developed from the thoughts of, amongst others, Dewey (1916) who stated that education and democracy are interlinked, and learners should learn the skills they need for democratic living, including problem solving and scientific methods (Abrie, Blom & Fraser, 2016:11–12, Gutek, 2014:373–374). Progressivism is thus rooted in changing a core culture through critical evaluation (Hlebowitsh, 2005:64). Furthermore, progressivists refuse constant and universal truths (Zirhlioğlu & Yayla, 2016:2112; see Figure 2.3).

The educational principles of progressivism are to emphasise learners' interests, experiential learning, deep learning, engagement with the learning content and the teacher as facilitator rather than rote learning and the teacher as dictator (Abrie *et al.*, 2016:11). Ornstein and Hunkins (2018:58) also indicate that progressivism "rejected rote learning, lesson recitation and textbook authority". The dominant education of perennialism and essentialism is too rigid, has too strict discipline and is too teacher-centred (Tan, 2006:33; Zirhlioğlu & Yayla, 2016:2112). Dewey (1916)

argued that reality is constantly changing and, as a result of the constant change, there is no relevance for a fixed body of knowledge (Ornstein & Hunkins, 2018:58). Tan (2006:33) also reasons that "no universal and unchanging knowledge and values [could] be [conveyed] through the generations, [because] knowledge and values are dependent on human experiences". Progressivism focuses on how to think, rather than on what to think; therefore, the curriculum is interdisciplinary and the teacher should guide the learner in problem solving and scientific projects (Ornstein & Hunkins, 2018:58). The interdisciplinary nature of the progressive curriculum is also argued by Tan (2006:34) because nature's problems are multi-dimensional and for that reason, humans need knowledge from a variety of subjects to solve it.

Tan (2006:34) states that the progressive teacher is similar to the pragmatist teacher in that learners are guided in problem solving by a facilitator and not a teacher; therefore, progressivism developed from pragmatism, as was also stated by other scholars (Gutek, 2014:378; Zirhlioğlu & Yayla, 2016:2112). The facilitator should plan the curriculum to excite the learners' interests and needs rather than focusing on the great works of the past (Tan, 2006:34; Zirhlioğlu & Yayla, 2016:2112). Thus, in progressivism, facilitation should occur within a flexible, learner-centred, creative and collaborative learning environment, as opposed to forcing learners to compete with each other (Tan, 2006:34; Zirhlioğlu & Yayla, 2016:2112).

2.3.2.4 Reconstructionism

As derived from literature (Tan, 2006:35; Zirhlioğlu & Yayla, 2016:2112; see Figure 2.3), reconstructionism followed from progressivism and is based on pragmatism. Gutek (2014:389) mentions that reconstructionism could also be called "Social Reconstructionism". Similar to pragmatists, reconstructionists also believe that education should be a social construction, rather than being merely academic, by creating a new, more democratic, more humanitarian and more reasonable society (Gutek, 2014:390; Tan, 2006:35). Therefore, reconstructionist education should reconstruct, reform and renew the existing society (Gutek, 2014:395).

Considering reconstructionist education, learners and teachers should be focused on bringing forth change, because analysis, interpretation and evaluation only will not suffice (Ornstein & Hunkins, 2018:63). Therefore, education should be utilised as a tool for social reform, where teachers should believe in their ability to change society and motivate learners to believe in social reformation (Zirhlioğlu & Yayla, 2016:2112). In this process of social reform, learners should be empowered to solve personal and social problems (Tan, 2006:35) and schools should support

learners as transformative agents, imperatively aiming for deliberate social change (Gutek, 2014:409). Reconstructionists opt for multicultural education, where a new social order is created, rather than mirroring and reproducing the status quo (Gutek, 2014:409). As a result, learners should develop beyond their natural culture to construct an individualised sense of identity and purpose (Tan, 2006:35). As such, the schools and the curriculum should not only reflect the history of existing society, but rather the need to change it (Gutek, 2014:409). The curriculum should change to include reform strategies, and to keep up with the social, economic and political influences in education (Ornstein & Hunkins, 2018:63). The adapted curriculum should be multidisciplinary and interdisciplinary, with the teacher referring to various disciplines (Tan, 2006:35) within a democratic classroom environment (Zirhlioğlu & Yayla, 2016:2112).

2.3.2.5 Critical theory

Critical theory originated from existentialism and postmodernism (Tan, 2006:36; see Figure 2.3). Pivotal to critical theory are the power relationships in society and the analysis of these (Gutek, 2014:421). As a result of the existing power relationships, critical theory wants to raise consciousness, and so cause transformative change in society and education (Gutek, 2014:421). Hence, it is argued that schools should be institutions teaching for social change (Tan, 2006:36).

Critical theory and hence, critical pedagogy, stemming from reconstructionist philosophy, argues that learners are capable of thinking, questioning and being critical (Freire, 1970; Grundy, 1987); thus, learners are viewed as pivotal resources for promoting and protecting democracy (Ornstein & Hunkins, 2018:63). Additionally, emphasis is put on learners' own experiences, history, identities and struggles, which resonates with existentialism (Tan, 2006:36). Drawing further from existentialism and postmodernism, critical theorists (such as Freire, 1970; Grundy, 1987) also oppose the transmission of a fixed body of knowledge, ideas and values, because transmission of knowledge is traditional and stems from the views of the people in power positions (Tan, 2006:37). Subsequently, critical theorists advocate a flexible and multidisciplinary curriculum, based on learners' experiences (Tan, 2006:37).

According to critical theorists (such as Freire, 1970; Grundy, 1987), a good teacher is one who is not focused on reinforcing the prescribed curriculum through traditional teaching and learning, but rather uses the learners' life stories as a starting point (Tan, 2006:37). Varied perspectives can be included because a plurality of learners' voices is included (Tan, 2006:37). I noticed then that a good critical teacher differs from a good pragmatist teacher, because pragmatism builds

experiences in the classroom, and does not work with the previously gained experiences of the learners.

From the discussion above it is important to infer that the major philosophies instigated the development of the related educational philosophies, and more specifically, some major philosophies directly influenced some of the educational philosophies (Gutek, 2014; Ornstein, 2011; Ornstein & Hunkins, 2018). The discussion so far was focused on what each of these philosophies entail, and what the influences of each philosophy are for education, the curriculum and the teachers' requirements and responsibilities. Although the major and educational philosophical influences on the curriculum have been included in the discussion, Schiro (1978; 2013) and others also refer more specifically to curriculum philosophies, which are important for this discussion. Curriculum philosophies are important because they enlightened curriculum developments and influences that occurred in the past and those developments and influences might be relevant for future education. Therefore, curriculum philosophies are discussed next.

2.3.3   Curriculum philosophies

Curriculum philosophies reflect different beliefs concerning schooling, teaching, learning, childhood, knowledge, evaluation practices and education (Marulcu & Akbiyik, 2014:200). Eisner (1996:13) argues that these philosophies lay the foundations for making curriculum choices and formulating educational aims. Schiro (2013:1–2) also states that curriculum ideologies are synonymous with curriculum philosophies, but in my study and for the purpose of elaborating on the philosophical underpinning of the curriculum, the term 'curriculum philosophies' was used. The curriculum philosophies, as Schiro (2013:1–2) argues, constitute the scholar academic philosophy, the social efficiency philosophy, the learner-centred philosophy and the social reconstruction philosophy. Each of these will be explained briefly and then in relation to the major philosophies and the educational philosophies, as demonstrated in Figure 2.3.

2.3.3.1 The scholar academic philosophy

The scholar academic philosophy holds the view that knowledge has been gained over many centuries; therefore, the knowledge of the time was grouped into separate academic disciplines (Schiro, 2013:4). According to this view, the purpose of education was to help learners with learning about the academic disciplines, but also to gain existing knowledge (Schiro, 2013:4). Teachers, then, should be mini-scholars who hold a deep understanding of their discipline, with

the ability to teach it to learners clearly and accurately (Schiro, 2013:4), but educational institutions determines teachers' views on education (Marulcu & Akbiyik, 2014:200). Scholars adhering to this philosophy believe that the discipline will expand with learners being taught about the content, conceptual frameworks, and ways of thinking of this discipline, and the curriculum should provide the means of teaching this discipline (Schiro, 2013:4; 1978:10). Evidently, it is clear that the scholar academic curriculum philosophy resonates with thoughts from idealism, realism, perennialism and essentialism, because of the strict hold on previously determined knowledge that should be transmitted to learners from a subject specialist teacher (see Figure 2.3). As was previously explained (see 1.4.1, 2.3.1.1, 2.3.1.2, 2.3.2.1, 2.3.2.2), these are not thoughts conducive to 21st-century education.

2.3.3.2 The social efficiency philosophy

The social efficiency philosophy views the purpose of schooling as training young people to become mature members of the society, who will meet the needs of society (Marulcu & Akbiyik, 2014:201; Schiro, 2013:5). The goal is for young people to learn the skills and procedures that they will need for their future workplaces and homes to be productive in society (Schiro, 2013:5). Education is effective when learners can perform the functions necessary for social productivity, and teachers should select strategies that will help learners to achieve the appropriate behaviours as prescribed by the curriculum (Marulcu & Akbiyik, 2014:201; Schiro, 2013:5). Teachers should firstly determine the needs of society, and then learning will occur in a "fairly direct cause-effect, action-reaction, or stimulus-response context" (Schiro, 2013:5). Similar to the scholar academic curriculum philosophy, I will maintain that the social efficiency curriculum philosophy also has similarities with the views of idealism, realism, perennialism and essentialism, which are also not the most effective basis for 21st-century education (see 1.4.1, 2.3.1.1, 2.3.1.2, 2.3.2.1, 2.3.2.2; see also Figure 2.3).

2.3.3.3 The learner-centred philosophy

In contrast to the previous two curriculum philosophies, the learner-centred philosophy does not focus on the needs of the society or academic disciplines, but rather on the needs of individual learners (Schiro, 2013:5). The aim is for learners to train themselves naturally for socialisation in more enjoyable school settings (Marulcu & Akbiyik, 2014:201). According to the learner-centred philosophy, the goal of education is to have individuals who will grow in accordance with their unique intellectual, social, emotional and physical characteristics (Schiro, 2013:5). Learner-

centred teachers view people as having their own capabilities for growth, and believe that everyone should actualise his or her own capabilities, and that individuals are naturally good (Schiro, 1978:11; 2013:6). Education should thus extract the capabilities of people while growing and constructing meaning in physical, intellectual and social environments (Schiro, 2013:6).

Learning occurs through the construction of meaning, with the person interacting with his or her environment; therefore, the curricula comprises contexts, environments or units of work, where learners can interact with other learners, teachers, ideas and objects (Schiro, 2013:6). The teacher creates these contexts, environments and units of work to stimulate the growth of individuals to construct meaning for themselves (Schiro, 2013:6). Meaningful experiences are presented by the teachers to contribute to the learners' learning experiences (Marulcu & Akbiyik, 2014:201). Evidently, the learner-centred curriculum philosophy resonates with pragmatism, existentialism and progressivism, because of the pragmatic ways of including individual learners to progress in their own understanding of the world (see Figure 2.3). Previously (see 2.3.1.3, 2.3.1.4, 2.3.2.3), it was already mentioned that these are views that could be conducive for 21st-century education, but these philosophies still lack the reconstructionist element, which is crucial for 21st-century education. This shortcoming will be discussed in the fourth curriculum philosophy, the social reconstruction philosophy, to be explained next.

2.3.3.4 The social reconstruction philosophy

Social reconstruction curriculum philosophy, which developed from postmodernism, reconstructionism and critical theory, focuses on the injustices done to society regarding racial, gender, social and economic inequalities (Schiro, 2013:6, see Figure 2.3). Marulcu and Akbiyik (2014:201) concur that this philosophy assumes that society should be reconstructed because of its fragile state. Thus, education should focus on facilitating "a new and more just society", because education is a social process that can reconstruct society (Schiro, 2013:6). Social reconstructionists see the curriculum as a means of teaching people to understand their society in such a way that they can envision a better society where they could act to develop their improved vision of society (Schiro, 2013:6). Therefore, reconstructionists admit that the reconstruction process would only be possible with schools and teachers actively participating, because schooling is the social process through which societies could be changed (Marulcu & Akbiyik, 2014:201). Trilling and Fadel (2009:136) agree that teachers are prominent in the changing process; therefore, they should "have the knowledge, skills, and support to be effective 21st century teachers". Subsequently, this reconstructionist philosophical line of thought appears

to be the most appropriate for education in the 21st century, because knowledge constructs are not viewed as static and unchangeable, but rather as undergoing constant change.

My study focused on learner-centred and social reconstruction curriculum philosophies, underpinned by the educational philosophies of progressivism, reconstructionism and to some extent, critical theory. The reasoning behind focusing my study on the learner-centred philosophy was the development that had occurred in major philosophies, educational philosophies and curriculum philosophies, but also the context of my study, being the 21st century (see 1.1, 1.4.1, 2.1). The uncertainty of how to live and how to educate in the 21st century is very prominent in the literature (Ornstein & Hunkins, 2018:330–331), but developments regarding curriculum understanding have also occurred, which could enlighten the uncertainties of the 21st-century educational stance. Consequently, the changes regarding the curriculum domains (such as curriculum design, curriculum development and curriculum implementation) will be discussed in section 2.5. Before the curriculum domains can be explained and included in the argumentation, a definition of curriculum for the 21st century should be highlighted.

2.4 UNDERSTANDING CURRICULUM FOR 21ST-CENTURY EDUCATION

Following from the discussion above, it was clear that philosophies have developed over many years. In conjunction with these developments, the traditional philosophies also did not stop existing, but rather diversified into more applicable philosophies for that specific time. In the same sense and continuously, education and educational philosophies also developed and diversified, having influences on the diverse thoughts regarding the curriculum and teachers' responsibilities. Therefore, when reading about curriculum and the different nuances associated with the definitions of curriculum, it was evident that these curriculum definitions have been influenced by philosophical underpinnings.

Hlebowitsh (2005:1–4) distinguishes between curriculum definitions to refer to the content to be taught (influenced by the thoughts of the traditional philosophies), or to give more meaning to the curriculum by referring to the process of curriculum design or development (influenced by the more contemporary philosophies). He explains that when the focus is on content or subject matter, the curriculum becomes a way of keeping record of what is taught where teaching is limited to the boundaries of the prescribed subject matter (Hlebowitsh, 2005:1). Graham-Jolly (2003) and other scholars (such as Booyse & Du Plessis, 2014; Ornstein & Hunkins, 2018; Themane, 2011) refer to the narrow view, or technical approach, of the curriculum, where

reference is made to the list of subjects or courses that are taught at school. The limited expectation from viewing the curriculum as subject matter is to ensure exposure to only the content knowledge (Hlebowitsh, 2005:1). Freire (1993:53) also refers to this way of teaching as the "banking concept" of education, where deposits of content are narrated to the learners by the teacher. The learners are contributing to education only by means of receiving the content, filing it and storing these content deposits (Freire, 1993:53). From this perspective on education, learners are not actively involved in education and they are not allowed to contribute from their own experiences. The curriculum content is specifically decided before teaching occurs after which the content cannot change or adapt.

Alternatively, some scholars (such as Booyse & Du Plessis, 2014; Freire, 1993; Graham-Jolly, 2003; Ornstein & Hunkins, 2018) focus their view of the curriculum to include broader perspectives of the curriculum, where the curriculum is viewed as a process of curriculum design or curriculum development (Hlebowitsh, 2005:2) or where factors outside the classroom may have an effect on teaching and learning (Themane, 2011:1639), rather than only focusing on the prescribed curriculum content. The relevance and detail of the broader view of the curriculum will be elaborated on later in this chapter (see 2.5.1.2, 2.5.1.3, 2.5.2.2).

According to Ornstein and Hunkins (2013:8–10), the definitions of 'curriculum' can be grouped into five categories, referring to the curriculum as –

- a plan for achieving a goal, where the goal should be realised as well as possible;
- dealing with the learner's experiences, which can be planned inside or outside of the school;
- a system for dealing with people in a linear or non-linear way, where the curriculum specialist could follow a specific model or enter at different points of the model;
- a field of study with its own foundations, knowledge domains, research, theory, principles and specialists, where the curriculum is often discussed in theoretical terms rather than practical terms; or
- subject matter or content, where the focus is on the facts and concepts of specific subject areas.

These five categories of definitions of the term 'curriculum', explained by Ornstein and Hunkins (2013:8–10) substantiate the differences explained by other scholars (such as Booyse & Du Plessis, 2014; Freire, 1993; Graham-Jolly, 2003; Hlebowitsh, 2005; Themane, 2011). From the definitions identified by Ornstein and Hunkins (2013:8–10), it is clear that the technical and linear

views of the curriculum (planning to achieve a goal, working as a system to deal with people, focusing on subject matter) are different from the broad view of the curriculum where dealing with the experiences of learners stands central to education. For education in the 21st century, being critically and innovatively oriented, a broad understanding of curriculum seems appropriate. This statement will be discussed further in the sections to follow (see 2.5.1.3, 2.5.2.2, 2.5.3.2, 2.5.4).

For my study, it was important to realise how differently the term 'curriculum' can be understood, because the participating teachers' views of the curriculum were quite diverse. Themane (2011:1639) notes that peoples' understanding regarding the curriculum is crucial for theorising, practicing and defining the curriculum. Therefore, how the participating teachers understood the curriculum, was critical for exploring how they were functioning within their curriculum as praxis. Teachers' diverse views of the curriculum could enhance or diminish the link between their curriculum as praxis and their SDL capabilities (see 3.4.1–3.4.3). If the participating teachers viewed the current national curriculum, the Curriculum and Assessment Policy Statement (CAPS) (see Department of Basic Education, 2011a), as only being content-based and restricting them, then these teachers might only teach the CAPS in a technical, prescriptive way and as a transmitter of previously decided content. However, if particular teachers viewed the CAPS as a guide for planning the learning experiences of learners of the 21st century, where the learners could also contribute to these experiences, then these teachers might have been more prone to adapt to an SDL curriculum as praxis within their capabilities. This argument will be continued and expanded on in Chapter 3.

In section 2.5, the curriculum domains, comprising the curriculum design, curriculum development and curriculum implementation, will be elaborated on in order to discuss the more intricate dimensions of these domains that were relevant to my study. The curriculum domains will also be discussed to demonstrate the relevance of how these domains were influenced by the previously elaborated philosophical underpinnings and how these underpinnings influenced the development of curriculum as praxis.

2.5   CURRICULUM DOMAINS

When considering the intricate body of scholarship of the curriculum, I noticed that scholars use similar terms to describe the curriculum domains of design and development, but that the explanations of these domains are quite diverse. Ornstein and Hunkins (2018:208–209) confirm that ambiguity exists regarding the definition of 'curriculum design' and 'curriculum development'.

Carl (2012:40) also refers to the divergent descriptions and interpretations of curriculum development, as "a complex, dynamic process which tends to lead to many interpretations and perspectives". Similarly, Frame (2003:33) writes about the "complex and contested nature of the curriculum and … [the] complexities of [the] processes of curriculum change". Therefore, further explanations regarding the curriculum domains were vital to gather how these curriculum domains could be relevantly utilised towards the curriculum as praxis in 21st-century education.

As was discussed previously (see 2.4), Hlebowitsh (2005:1–4) views the curriculum to be focused on the content to be taught, which is traditionally philosophically underpinned, or the curriculum to be focused on curriculum design or curriculum development, which is contemporarily philosophically underpinned. Curriculum design influences the diverse experiences that learners could gain from the same learning opportunity, while curriculum development comprises the reconstruction of new experiences (Hlebowitsh, 2005:2). Other researchers (such as Carl, 2012; Carson, 2010; Hlebowitsh, 2005; Ornstein & Hunkins, 2018; Thornton, 2010) also refer to 'curriculum design' 'curriculum development' and 'curriculum implementation', but with slightly different explanations from what Hlebowitsh (2005) describes. The first curriculum domain to focus on is that of curriculum design.

2.5.1 Curriculum design

Scholars seem to agree about what curriculum design entails, although with slightly different explanations. Ornstein and Hunkins (2018:31) explain curriculum design as the way(s) in which curriculum researchers, theoreticians and practitioners "conceptualise the curriculum and arrange its major components (subject matter or content, instructional methods and materials, learner experiences or activities) to provide direction and guidance as we develop the curriculum". Carl (2012:41) defines curriculum design as a "phase during which a new curriculum is planned, or during which the replanning and review of an existing curriculum is done after a full re-evaluation has been carried out". He elaborates that this phase usually has some quite distinctive components, namely purposefulness, content, methods, learning experiences and evaluation. Thornton (2010:199) defines curriculum design as the way(s) in which activities are arranged for learners to engage with the content of the subject. Further, curriculum design also considers learning an essential part of the school experience, implying that different learners may acquire different experiences from the same learning opportunity (Hlebowitsh, 2005:2). For the purpose of my study against the context of the 21st century, curriculum design was understood as the

way(s) in which different components of the curriculum are structured in order to provide optimal learning opportunities for learners.

Although Grundy (1987:27) argues that the mere consideration to design a curriculum refers to the narrow, technical perspective of curriculum where content is prescribed, Ornstein and Hunkins (2018:188) argue that the components of curriculum design, namely objectives, content, learning experiences and evaluation, could be arranged in many ways. It does not matter how these components are arranged, three basic curriculum designs are still considered to be the most prominent ones (Ornstein & Hunkins, 2018). These three designs are –

- the subject-centred designs (see 2.5.1.1), underpinned by perennialism, essentialism and, to some extent, progressivism;
- the learner-centred designs (see 2.5.1.2), underpinned by progressivism and, to some extent, reconstructionism and existentialism; and
- the problem-centred designs (see 2.5.1.3), underpinned by reconstructionism (Ornstein & Hunkins, 2018:203–204; see Figure 2.4).

As mentioned in section 2.5.1, Hlebowitsh (2005:58–84) distinguishes the philosophical influences on curriculum design between schooling in the *conservative* tradition, schooling in the *progressive* tradition and schooling in the *radical* tradition. Schooling in the conservative tradition shows influences from the perennial and essentialist perspectives, while schooling in the progressive tradition shows influences from the experimentalist, romantic naturalist and social efficiency perspectives (Hlebowitsh, 2005:58–76; see Figure 2.4). Schooling in the radical tradition shows influences from social reconstructionism and postmodernism perspectives (Hlebowitsh, 2005:76–82). Arguing from the similarities in the philosophical underpinning of these curriculum designs, distinctions in curriculum designs as indicated by Ornstein and Hunkins's (2018) and Hlebowitsh's (2005), are combined and discussed next.

2.5.1.1 Subject-centred designs within schooling in the conservative tradition

Being underpinned by perennialism, essentialism and later even progressivism, content and knowledge are viewed as fundamental to the curriculum (Hlebowitsh, 2005:58–64; Ornstein & Hunkins, 2018:188). The academic idea of enforcing previously determined content is also essential (Ornstein & Hunkins, 2018:188). Hlebowitsh (2005:58) therefore exclaims that in the conservative tradition, the school curriculum is fundamentally subject-centred. The purpose of this schooling is primarily focused on transmitting previously accumulated cultural knowledge

(Hlebowitsh, 2005:58), which could hinder the dynamic informational developments of the 21st century. Therefore, as elaborated earlier (see 2.5.1.1), the subject-centred designs are perennially and essentially underpinned. Some of the later subject-centred designs (i.e. process designs [see Dewey, 1916]) started progressing towards interdisciplinary subject fields to include learners' experiences, as was vital within progressivism (Ornstein & Hunkins, 2018:203; see 2.3.2.3).

2.5.1.2 Learner-centred designs within schooling in the progressive tradition

Although subject matter as content was still valued, some curricularists (prominently Dewey, 1916; Doll, 1986) asserted that learners' interests should be the focus of a learning programme (Ornstein & Hunkins, 2018:193). Therefore, some progressive advocates (such as Dewey, 1916; Kilpatrick, 1918; Freire, 1970) named these the 'learner-centred designs' (Ornstein & Hunkins, 2018:193). Later developments also focused on learners' experiences and their individual and group needs; therefore, reconstructionism also underpinned some of the learner-centred designs (Ornstein & Hunkins, 2018:203). Linking to schooling in the progressive tradition, Hlebowitsh (2005) explains that this tradition is underpinned by experimentalism, romantic naturalism and social efficiency. These philosophical underpinnings have not been discussed fully as part of the educational philosophies; therefore, more light will be shed on these, explaining why they make up the progressive tradition.

- Experimentalism directly refers to and links with pragmatism (see 2.3.1.3) and progressivism (see 2.3.2.3). Hlebowitsh (2005:65) confirms that experimentalism, as a variant of progressivism, emanated from the work of Dewey (1916). Hlebowitsh (2005:65) continues that Dewey's (1916) aim was to regard the school as an institution of democracy, where learners would learn the values, skills, attitudes, knowledge and general competencies that were needed for living life in a good society.

- The progressive child-centred orientation to schooling was called 'romantic naturalism' (see Hlebowitsh, 2005:68; Rousseau, 1955). The previously known subject-centred approach was a mentalistic, uniform, knowledge-based, planned experience with teacher-directed instruction, teacher authority and a structured curriculum (Hlebowitsh, 2005:68). Contrasting this subject-centred approach, the child-centred approach was an active, individualistic, emotional and spontaneous experience, with learners directing their own learning, determining what, how and when they will learn for themselves (Hlebowitsh, 2005:68). Therefore, the learner's self-educating powers became central, dictating the individual choice and individual direction of the learner (Hlebowitsh, 2005:68). Individual

choice and direction are pivotal characteristics for the 21ˢᵗ century and SDL, as will be discussed later (see 3.4.1–3.4.3).

- Social efficiency, as was discussed earlier (see 2.3.3.2), differs considerably from the other progressive thoughts, because social efficiency mainly supports the factory model of schooling (see Callahan, 1962) (Hlebowitsh, 2005:70). The concept of the curriculum that emanated from these thoughts was management-driven, efficiency-driven and prescriptively detailed, although some of these theorists aimed to incorporate life activity into the curriculum (Hlebowitsh, 2005:71). Social efficiency is thus traditionally underpinned, emphasising the rationale of Tyler (1949).

Even though I am aware of the work of Wraga (2017) where a much different light is shed on the work of Tyler (1949), than in the general body of scholarship, previously published works that critiqued Tyler and the Tyler rationale could not be ignored in my study.

2.5.1.3 Problem-centred designs within schooling in the radical tradition

The problem-centred designs focus on real-life problems of individuals and their society (Ornstein & Hunkins, 2018:199). With these designs, the curriculum is devised, depending on the nature of the problems to be studied; therefore, learners' needs, concerns and abilities are addressed (Ornstein & Hunkins, 2018:199). Hlebowitsh (2005:76) explains that transforming the existing school system, is pivotal. Both content and learners' development are crucial, while also focusing on life situations, social problems, areas of living and reconstructing society (Ornstein & Hunkins, 2018:199). Therefore, the problem-centred designs are underpinned by reconstructionism as was previously discussed (see 2.3.2.4). Hlebowitsh (2005:79) further explains that postmodernism "is deeply involved in providing what one might call oppositional thought in the school experience"; therefore, schooling in the radical tradition is also underpinned by postmodernism (see Gezer, 2018; Kohn, 2008).

To provide an overview of the ideas of Ornstein and Hunkins (2018) and Hlebowitsh (2005), I refer to Figure 2.4. From Figure 2.4, it is important to deduce that if we (as role players in the field of education) are aiming to move beyond the major traditional philosophies, which underpin traditional education philosophies and curriculum philosophies, then we need to continue developing towards the more contemporary philosophical underpinnings.
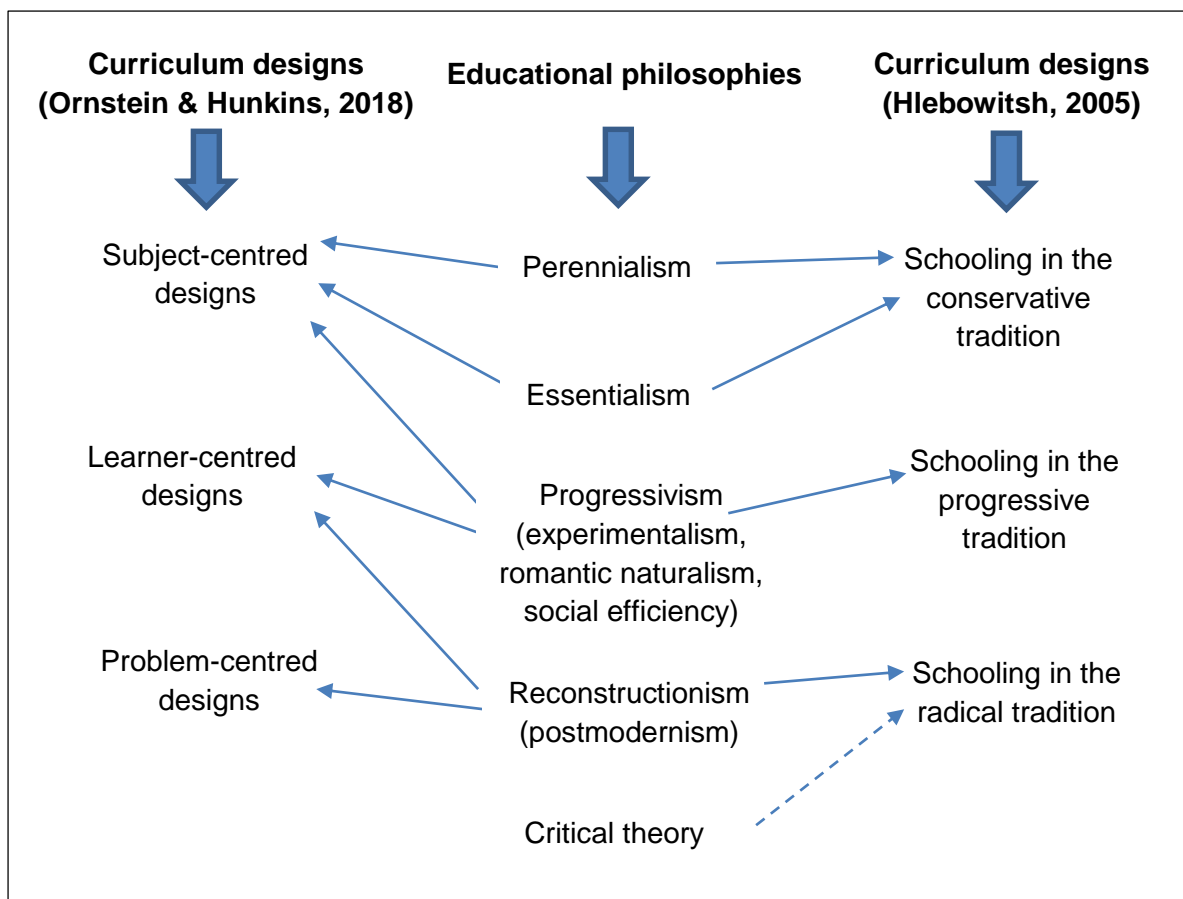
Figure 2.4: Educational philosophical underpinning of curriculum design
Source: Author's own conceptualisation

The traditional educational philosophies of perennialism and essentialism underpinned the curriculum designs, which were subject-centred within schooling in the conservative tradition (see Hlebowitsh, 2005; also see 2.5.1.1). Although progressivism started to break away to more contemporary thoughts, it still showed some relevance of content-driven subjects, as was discussed previously (see 2.3.2.3). Progressivism did, however, also underpin learner-centred designs within schooling in the progressive tradition. Similarly, reconstructionism underpins learner-centred designs as well as problem-centred designs within schooling in the radical tradition (see 2.5.1.3). Naturally then, as was discussed earlier (see 2.3.2.3–2.3.2.5), progressivism, reconstructionism and critical theory could enhance learning in the 21st century, because these philosophical underpinnings support 21st-century skills, e.g. innovation, flexibility, adaptability, and initiative. Therefore, learner-centred designs within schooling in the progressive tradition and problem-centred designs within schooling in the radical tradition could support 21st-

century learning. It will be discussed later (see 2.6) how these curriculum designs support curriculum as praxis, within the 21ˢᵗ century.

The second curriculum domain to be discussed, is curriculum development.

2.5.2   Curriculum development

Curriculum development is described by Ornstein and Hunkins (2018:209), as comprising "various processes (technical, humanistic, and artistic) that allow schools and schoolpeople to realize certain educational goals". Curriculum development, as Carl (2012:38) explains, "is regarded as an umbrella and continuing process in which structure and systematic planning methods figure strongly from design to evaluation". Curriculum development consists of different phases of curriculum design, curriculum dissemination, curriculum implementation and curriculum evaluation (Carl, 2012:38). Hlebowitsh (2005:2–3), drawing from Dewey (1916:76), explains curriculum development as reconstructing experiences of the learners so that meaning could be added to these experiences in order to direct the course of the learners' experiences. These experiences are then not only plans to be conducted in a specific process, but also to add meaning to education and to develop naturally. Within my study, the definition of curriculum development concurred with that of Carl (2012:41-42), who states that curriculum development constitutes the continuing, dynamic process of change in the curriculum from design to evaluation and further to redesign and re-evaluation and so forth.

According to Ornstein and Hunkins (2018:210–222), curriculum development comprises the technical–scientific approach and the non-technical–non-scientific approach. Frame (2003:17) states that the theoretical underpinnings of the curriculum cannot be separated from managing curriculum development and change. She subsequently outlines broad approaches to curriculum theorising in order to be able to manage curriculum development and change (Frame, 2003:17). The three approaches about which Frame (2003) writes are the technical (empirical-analytic), practical (historical-hermeneutic), and critical (emancipatory) approaches to curriculum development. These approaches discussed by Ornstein and Hunkins (2018) and Frame (2003) will be joined and discussed next in order to discuss how curriculum development has occurred and how this development formed the idea(s) of praxis and curriculum as praxis.

2.5.2.1 Technical–scientific approach

Ornstein and Hunkins's (2018) idea of the technical–scientific approach to curriculum development concurs with Frame's idea of the technical approach. Frame (2003:19) explains that the natural and behavioural sciences have influenced fields of human inquiry, including the field of the curriculum; therefore, the dominant approach regarding the curriculum has been the technical approach. Reality thus operates in relation to separate but universal laws; therefore, claiming the universality of truth (Frame, 2003:19). The technical–scientific approach, also called the "instrumental approach" (Booyse & Du Plessis, 2014:14) emphasises a systematic process for designing a curriculum. The development process is formulated by clear and measurable objectives, determined by thorough analysis (Booyse & Du Plessis, 2014:14). Frame (2003:19) further notes that the development of knowledge in this approach enables predicting, controlling and manipulating the environment. Shawer (2010:598, 603) refers to curriculum transmission, where teachers only implement a formal curriculum by close correlation with the scope and structure of the prescribed curriculum and textbook.

The technical–scientific approach comprises, among others, the Tyler model or Tyler rationale (Ornstein & Hunkins, 2018:210–217; Posner, 1998:79–100). Ralph Tyler (1949) believed in "the linear technical production perspective that educational decisions should be made objectively, primarily by experts with specialised knowledge" (Booyse & Du Plessis, 2014:14). Tyler also believed in determining the ends of a learning session before the means of how to educate could be determined (Booyse & Du Plessis, 2014:14). Knowledge could thus be generalised, which, for the curriculum, implies that the universal truths are true for any context of educational practice (Frame, 2003:20). The main idea was that, if schools taught the same content, in the same way, with the same resources, the results (learners) of the education will be the same (Frame, 2003:20). Posner (1998:92) explains the criticism on the Tyler rationale by comparing this rationale to a factory, where the learners are simply the raw material to be fashioned by the "school-factory" into a "product drawn to the specifications of social convention". Freire (2005) supplements the factory metaphor by means of a 'banking metaphor', where he explains education to become a way of 'depositing' units of information into learners, with the teacher as the depositor. The learners only need to receive, memorise and repeat the information (Freire, 2005). Similarly, teachers supporting this approach experience almost no opportunity for development, "because curriculum knowledge is defined for them by external experts" (Shawer, 2010:598). Consequences of approaching the curriculum in a technical manner, are that –

- the curriculum is viewed as an object to be studied objectively;

- outsiders design a prescriptive curriculum, which questions the professional role of teachers;

- learning and understanding do not have to be interlinked or integrated between different subjects (Frame, 2003:21–23); and

- learners do not acquire the necessary skills and characteristics for the 21st century.

From the discussion above, it is clear that the technical–scientific approach to curriculum development concurs with the educational philosophies of perennialism (see 2.3.2.1) and essentialism (see 2.3.2.2). These philosophical underpinnings of the technical–scientific curriculum design, as discussed previously (see 2.3.2.1–2.3.2.2), are not sufficient for education in the 21st century. An overview of these philosophical underpinnings is also provided in Figure 2.5.

Literature and theories of curriculum show development far beyond the technical, product-oriented approach, as described by Ralph Tyler (1949) (Booyse & Du Plessis, 2014:14–23; Hoadley & Jansen, 2012:51). Curriculum theory has developed towards the more practical, process-oriented theory of Lawrence Stenhouse (1975) and further to the critical, emancipatory approach of Paulo Freire (1970) (Booyse & Du Plessis, 2014:14–23; Hoadley & Jansen, 2012:51; Posner, 1998). Frame (2003) refers to the practical approach and the critical approach, as will be discussed next as contributing to the non-technical–non-scientific approach.

2.5.2.2 Non-technical–non-scientific approach

Stenhouse (1975) advocates that teachers need to be actively involved in research and curriculum development (Booyse & Du Plessis, 2014:16) to be able to change and adapt the teaching–learning experiences of the learners. The practical approach, according to Frame (2003:24), "assumes that the nature of social reality involves agreement among human agents about what constitutes reality". Therefore, humans can reach consensus about what truth entails, and curriculum knowledge is socially constructed and not objectively discovered (Frame, 2003:24). Shawer (2010:598) explains this approach to curriculum development as being adaptable, because teachers can add to, adapt, omit and skip over parts of the formal curriculum. The practical approach further assumes that all people "are capable of reasoning, and that reaching agreement through processes of reasoning makes it possible for human beings to claim to understand the nature of what is real" (Frame, 2003:24). Ornstein and Hunkins (2018:217) continues that curriculum content in the non-technical–non-scientific approach is not "narrow and

traditional" and that educational topics constitute "expanding universes of educational discourses". Interpreting the meaning of social situations, through reflection and deliberation, is also pivotal (Frame, 2003:24). Curriculum knowledge thus develops through interaction, communication, motive and intent, assumed to be directed through human reasoning (Frame, 2003:25). A common understanding of this approach is that learning is good (Frame, 2003:25). Therefore, a teacher adopting this approach will plan a curriculum around opportunities that will produce learning (Frame, 2003:25). This active role of teachers comprises doing research while teaching, evaluating throughout and making necessary changes during the process of teaching (Booyse & Du Plessis, 2014:16). Predetermined outcomes are thus not the focus, but rather classroom interaction (Frame, 2003:25). Curriculum inquiry and development should therefore be context-specific, and the decision-making processes about the curriculum should consider the direct participants (teachers and learners) (Frame, 2003:26). Integration of knowledge constructs and interdisciplinary knowledge become relevant and important within this curriculum development approach (Frame, 2003:26).

The critical approach is in agreement with the practical approach in that knowledge is socially constructed (Frame, 2003:27). The curriculum is a political request, meaning that it should be understood in its social, political and economic context (Frame, 2003:27). Therefore, reality is socially constructed (practically and critically viewed), but power relations exist between different groups (critically viewed) (Frame, 2003:27). In contrast to the banking concept, Freire (1970) argues for an emancipatory approach, also called the "critical perspective" (Posner, 1998:57). In the emancipatory approach, critical reflection concerning one's own situation is vital (Posner, 1998).

From the discussion above, it is clear that the non-technical–non-scientific approach to curriculum development concurs with the educational philosophies of progressivism (see 2.3.2.3), reconstructionism (see 2.3.2.4) and critical theory (see 2.3.2.5). These philosophical underpinnings of the non-technical–non-scientific approach to curriculum development, as discussed previously, could be more supportive of education in the 21st century than the traditional philosophical underpinnings. An overview of these philosophical underpinnings are provided in Figure 2.5.
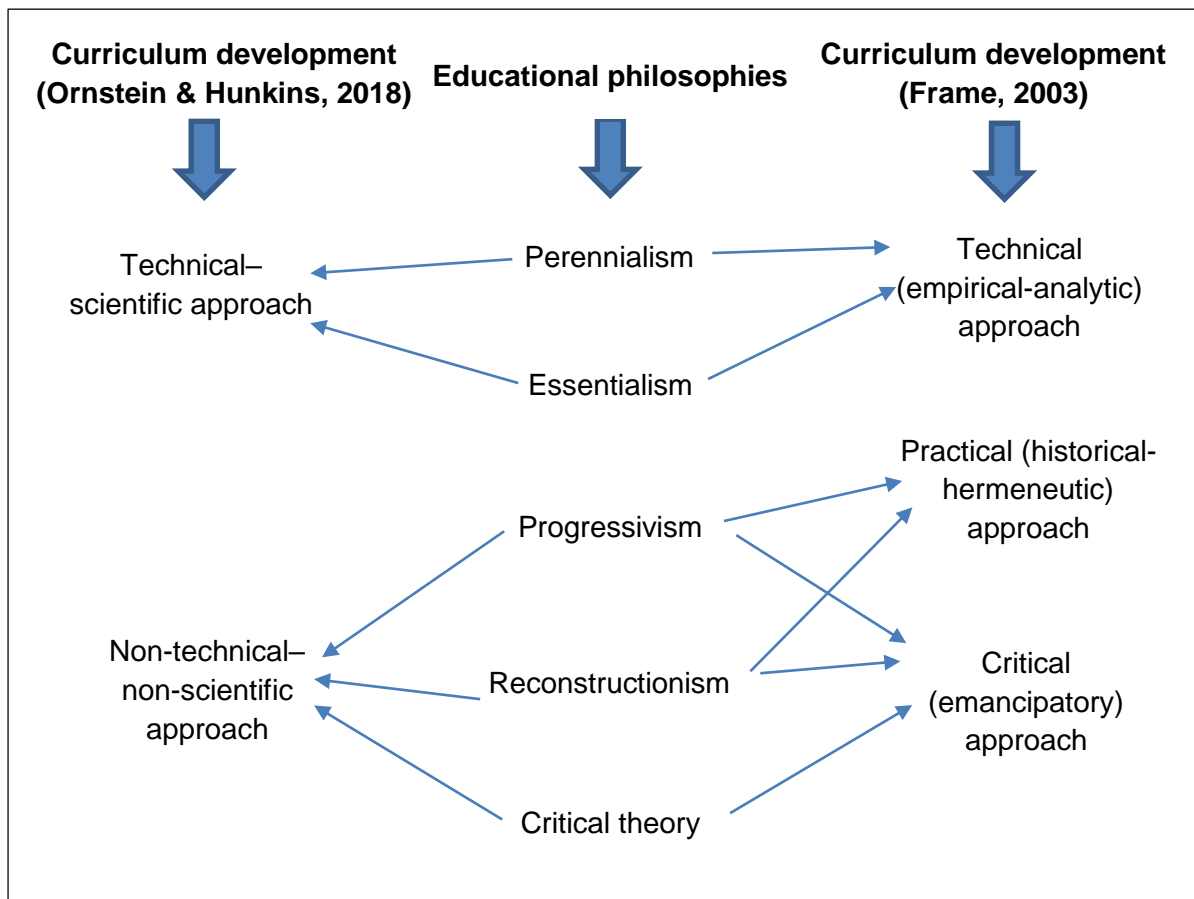
Figure 2.5: Educational philosophical underpinning of curriculum development

Source: Author's own conceptualisation

Curriculum implementation is the third curriculum domain, and is discussed next.

2.5.3 Curriculum implementation

When reading about curriculum implementation, it is clear that the implementation of a newly designed curriculum is experienced as being very problematic (Aoki, 2005; Carl, 2012:134–135; Carson, 2010:212; Hlebowitsh, 2005; also see 1.1, 1.4.2). Aoki (2005:111–112) claims that the implementation of a new curriculum usually occurs with 'experts-in-the-know' travelling between schools providing 'communiqués' to teachers in one- or two-day sessions, while the teachers are already anxious and frustrated about the changes. Carson (2010:212) confirms this problematising of curriculum implementation as an issue of communication between the developers of a new curriculum and the teachers who have to implement the curriculum. The problem is that the communication is one-way, which results in "inadequate support from the side of the developers and resistance to change, or poor professional development on the part of the

teachers" (Carson, 2010:212). Sarason (1990) explains that curriculum implementation could fail if the people in charge do not understand the contexts of different schools. Addressing such problems of curriculum implementation, Hlebowitsh (2005:218) argues that curriculum implementation –

> [I]s not simply a matter of teacher compliance, or of getting teachers to do as they are told, but one of encouraging teacher ownership of the curriculum and supporting the exercise of professional discretionary judgment in a way that keeps the school experience tied to what the teacher believes is best for their [learners] within the limits of the school's mandate.

It is argued by Ornstein and Hunkins (2018:260) that open discussion should be accommodated throughout the implementation process of a new curriculum. Hlebowitsh (2005:217) refers to this communication as the co-ordination between the design and the practice of the curriculum to be implemented. Ornstein and Hunkins (2018:258) further argue that the implementation of a new or adapted curriculum should be tailored to each different school and school context.

Different perspectives thus exist regarding what curriculum implementation entails, and these perspectives have developed throughout the historical development of philosophies and education. Some prominent perspectives are consequently explained next.

Aoki (2005) wrote extensively about two perspectives regarding curriculum implementation, namely curriculum implementation as instrumental action, and curriculum implementation as situational praxis (Aoki, 2005). He explains that curriculum implementation became "the ritual of attempting to bridge the gap between curriculum-as-plan and curriculum-in-use" (Aoki, 2005:112). Shawer (2010) and Hlebowitsh (2005) refer to Snyder, Bolin and Zumwalt (1992) who distinguish three perspectives on curriculum implementation: the fidelity approach, mutual adaptation and curriculum enactment. These perspectives are discussed next in order to understand how the domain of curriculum implementation could support curriculum as praxis.

2.5.3.1 Curriculum implementation as instrumental action

Curriculum implementation as instrumental action seem to relate well with the fidelity approach. Aoki (2005:113) explains that the effectiveness of curriculum implementation depends on how well communications are transferred from a higher authority to teachers. Hlebowitsh (2005:218) confirms that within the fidelity approach, exact transmission occurs between the planned curriculum and the implemented experience; therefore, the curriculum is a "script for teachers to

follow", sometimes even including instructional prescriptions. Shawer (2010:174) continues that external experts determine what teachers should teach; therefore, he named this approach "curriculum transmission".

The problem with viewing implementation as instrumental action is that implementation is not a true reflection of how the world is (Aoki, 2005:115). The implication of such an instrumental approach for teachers is that "a competent teacher-implementer is one who has skills and techniques oriented toward efficient control" (Aoki, 2005:113). Magrini (2015:280) confirms this problematic view, because theory and practice are separated in such a way that theory could only be related to practice by means of controlling, directing and predicting predetermined outcomes, as was the case with the Tyler rationale (see Tyler, 1949; also see 2.5.2.1). Shawer (2010:174) confirms that the fidelity approach relates to the Tyler rationale where objectives, content and assessment of pre-determined outcomes are specified for teachers. Aoki (2005:113) argues, "[s]uch a know-how-to-do view of implementation is embedded in scientific and technological thought/action framework that reduces human competence to instrumental reason and instrumental action". The instrumental perspective of implementation decreases and disregards the interpretative activities with which the teacher could engage while encountering the prescribed curriculum (Aoki, 2005:115). Aoki (2005:115) further claims that the really offensive part is "that viewing the teacher instrumentally effectively strips him/her of the humanness of his/her being, reducing him/her to a being-as-thing, a technical being devoid of his/her own subjectivity". Teachers are thus not trusted with their own professional responsibility to decide about the best practices for their learners within their specific context.

Magrini (2015:277) elaborates that the Tyler rationale is driven by social efficiency (see 2.3.3.2 and 2.5.1.2) because "[l]earning is primarily *technical* and *psychological*, concerned with changing the [learner]'s behaviour, which is expressed through explicit, demonstrable and quantifiable behavioural evidence outlined within the definitive goals and aims of the curriculum" (original emphasis). He continues that curriculum implementation stemming from social efficiency "provides an extremely limited and reductive view of the human being and the world" (Magrini, 2015:278; see also 2.3.3.2, 2.5.1.2). Magrini (2015:278–279) further argues –

> Viewing students exclusively through the empirical sciences and in terms of their instrumental application, cognitive psychology or the social sciences, sets limits on their unexplored potential and truncates their autonomy, for they are categorized a[s] an 'objective' remove[d] from the ever-evolving world of 'lived experience', which on a primordial level already

instantiates a mode of learning ('lived curriculum') antecedent to any formalized notions of 'schooling'.

Social efficiency has been discussed as one of the traditional curriculum philosophies (see 2.3.3.2). Because social efficiency is underpinned by the educational philosophies of perennialism and essentialism (see 2.3.2.1–2.3.2.2), it can be deduced that curriculum implementation as instrumental action is underpinned by perennialism and essentialism, which are not as conducive to 21st-century learning (see 2.3.2.1–2.3.2.2) as curriculum implementation as situational praxis, which will be elaborated next.

2.5.3.2 Curriculum implementation as situational praxis

Instrumental action dominated curriculum implementation; therefore, Aoki (2005) decided to propose an alternative perspective to curriculum implementation. This perspective is curriculum implementation as situational praxis. Aristotle contrasted *theoria* to *praxis*, where *theoria* refers to acquiring theoretical knowledge through contemplating a non-engaged process, as a spectator (Aoki, 2005:116). *Praxis*, on the other hand, is a way of knowing from within a pedagogical situation and by reflectively engaging with the objective world, in order to guide human action (Aoki, 2005:116). This dialectical unity formed by theory and praxis in the sense of practice becoming praxis, is what Aoki (2005) emphasises as being vital for effective curriculum implementation. Curriculum implementation as situational praxis also relates well with the two approaches suggested by Snyder *et al.* (1992), namely mutual adaptation and curriculum enactment.

Mutual adaptation is the notion of curriculum development where an interplay between the design of a curriculum and the practice thereof occurs (Hlebowitsh, 2005:218). Snyder *et al.* (1992:410) explain that mutual adaptation means that adjustments could be made to a curriculum as discussed by curriculum developers and the teachers who apply it in different classroom contexts. Through conversations, teachers and external developers introduce adaptations that are necessary for matching the curriculum to local contexts, and for Shawer (2010:174), this comprises curriculum development. Further, interaction between teachers, learners and the prescribed curriculum is encouraged through mutual adaptation, and teachers' roles become active with the autonomy to adjust the curriculum to different classroom contexts (Shawer, 2010:174). Magrini (2015:281) agrees that curriculum implementation as situational praxis, or the "operational curriculum" as Carl (2012:37; see 1.1) calls it, authentically converses the curriculum-as-plan, curriculum-as-enacted and the lived curriculum, where the lived curriculum occur

authentically in the experiential world shared by teachers and learners. The notion of the operational curriculum and the lived curriculum then enhances curriculum enactment.

Curriculum enactment prioritises the occurrences within a classroom, where teachers are given the independence to create relevant experiences for the learners they teach (Hlebowitsh, 2005:219). Curriculum knowledge is thus not a prescribed product anymore, but rather an ongoing construction of the enacted experiences created by the teacher and the learners (Snyder *et al.*, 1992:410). The enacted curriculum becomes a process of jointly creating and individually experiencing the curriculum, by both the teacher and the learners (Snyder *et al.*, 1992:428). The teachers therefore become the designers and implementers of the curriculum (Hlebowitsh, 2005:219); which Shawer (2010) calls "curriculum-making". Aoki (2005:116) confirms that curriculum implementation as situational praxis is grounded in human experience, where the teacher and the learners should "co-dwell" in the persistent presence of the curriculum. Magrini (2015:282) explains that situational practice is constructive and participatory, because knowledge becomes interpretative and "is constructed in an ever-renewed process of dialectic interchange". Within situational praxis, "the human being is autonomous, free to make choices, and when choosing, this being assumes responsibility for its choices" (Magrini, 2015:283). These characteristics – being autonomous, being able to make your own choices and taking responsibility for these choices, as well as to be able to become a self-directed learner – are vital in the 21st century. This argument will be elaborated on in Chapter 3 (see 3.4.1–3.4.3).

To emphasise the difference between curriculum implementation as instrumental action and curriculum implementation as situational praxis, these are contrasted in Table 2.1.

Table 2.1: Contrasting perspectives on curriculum implementation

Curriculum implementation as instrumental action (Productive activity [1.1, 2.6, 2.6.1])	Curriculum implementation as situational praxis (Practical activity [1.1, 2.6, 2.6.1])
Curriculum implementation comprises installing the prescribed curriculum.	Curriculum implementation comprises acquiring a deep understanding of the curriculum and transforming it appropriately to the situation.
The interest and implied view of the teacher are to transmit the prescribed curriculum faithfully and efficiently (fidelity view) in a classroom.	The interest and implied view of the teacher are to transform the curriculum within the situation.

Implementation implies a cause–effect relationship.	The implied view of the curriculum is that it is the text to be interpreted and critically reflected on in an ongoing transformation of the curriculum and the person.
The subjectivity of the implementer is irrelevant, because the implementation of the prescribed curriculum should be an objective process.	The central activity of the interpreter is reflection on his or her subjectivity and action.

Source: Adapted from Aoki (2005)

From the above discussion, it is clear that curriculum implementation as situational praxis is underpinned by the contemporary educational philosophies of progressivism, reconstructionism and, to some extent, critical theory, which has been discussed as supporting learning best in the 21st century (see 2.3.2.3–2.3.2.5). Referring to Figure 2.6, it is clear that the educational philosophies that underpin curriculum implementation perspectives, could also be separated by more traditional philosophies versus more contemporary philosophies. From the discussion above, reference was made to perennialism and essentialism underpinning curriculum implementation as instructional action within a fidelity approach. Curriculum implementation as situational praxis, comprising the approaches of mutual adaptation and curriculum enactment, is underpinned by progressivism, reconstructionism, and to some extent critical theory.
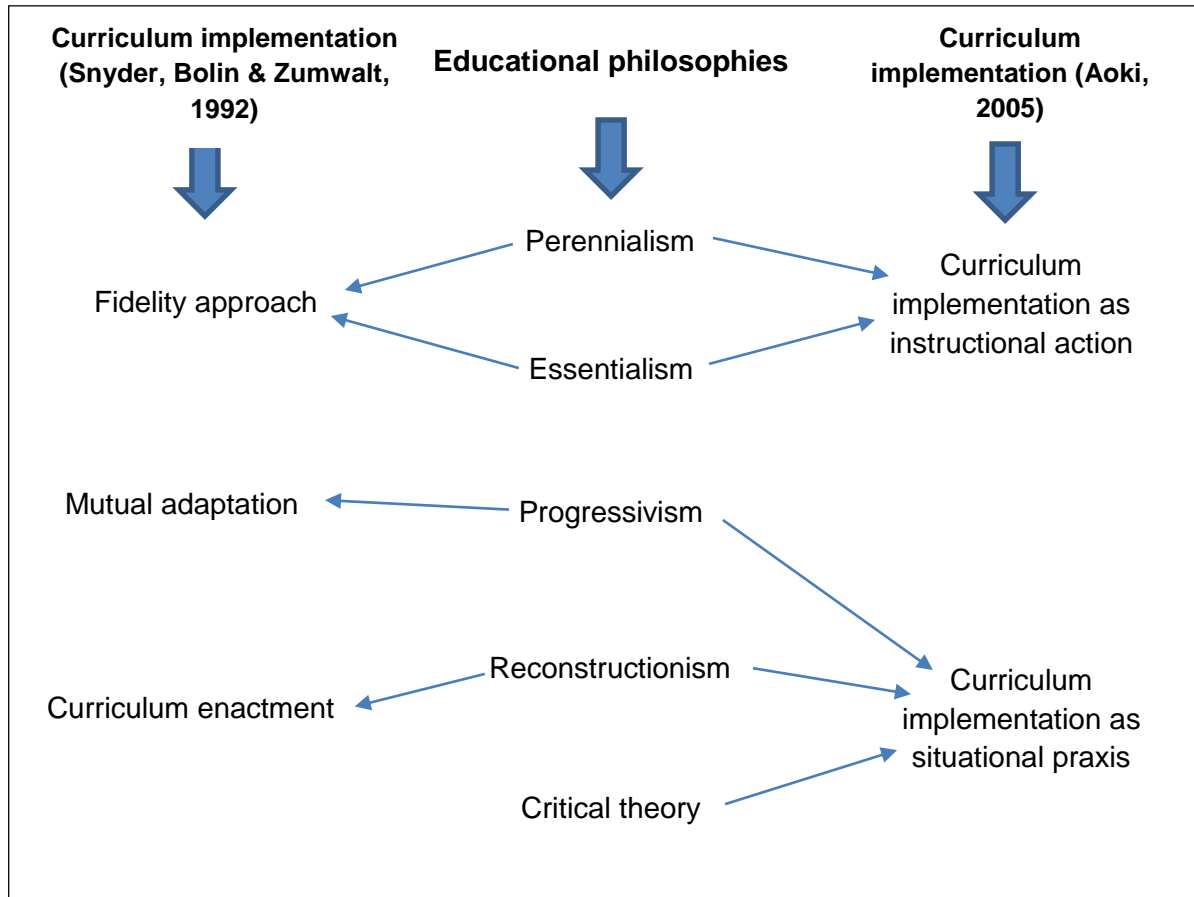
Figure 2.6: Educational philosophical underpinning of curriculum implementation
Source: Author's own conceptualisation

Referring back to curriculum development in relation to curriculum implementation, Ornstein and Hunkins (2018:257) state that peoples' views of education, whether technical or non-technical – influence their view of the social context of the school. People with a technical view will argue that implementation can be planned to the smallest details, whereas people with a non-technical view will argue that implementation is fluid and dynamic (Ornstein & Hunkins, 2018:257). These technical views in relation to the non-technical views also hold implications regarding teachers' views of education and the extent to which their views could influence efficient learning within the 21st century. The traditional philosophies do not promise efficient education for the 21st century, whereas the contemporary philosophies could support education in the 21st century better. The development of the contemporary philosophies further provides guidelines regarding the curriculum domains and how the approaches and perspectives in these domains have developed. Therefore, successful curriculum implementation within the 21st century requires new innovations.

The next section consequently addresses successful curriculum implementation for the 21st century.

2.5.4   Successful curriculum implementation for the 21st century

It was mentioned earlier (see 2.5.3) that curriculum implementation could be facilitated successfully if the necessary support is available to teachers, and that curriculum designers and the whole school community should facilitate capacity or capability (Ornstein & Hunkins, 2018:260). Ornstein and Hunkins (2018:260) refer to Elmore (2007) who defines capacity or capability as the resources, knowledge and skills brought to the learning environment by the teacher as well as the learners, and the skilled actions of the whole school environment that support and maximise the delivery and engagement of the teachers and learners with the implemented curriculum. Campbell (2006:111) agrees that the professional authority of teachers should not be determined by the external curriculum expectations, but rather by teachers' "own capacity to exercise curricular and pedagogical knowledge with discretion, judgement, and proficiency". In this sense, capacity is seen as synonymous with capability. Unfortunately, external curriculum expectations have been proved to be applied quite often (see 2.5.3), although alternative options regarding the prominent curriculum domains have been theorised (see 2.5.1.2, 2.5.1.3, 2.5.2.2, 2.5.3.2). Ornstein and Hunkins (2018) support alternative curriculum implementation options in order to bring forth curriculum change. For curriculum change to be successfully implemented, Ornstein and Hunkins (2018:262) drew on five guidelines:

- "innovations designed to improve [learner] achievement [should] be technically sound;
- successful innovation requires change in the structure of a traditional school;
- innovation [should] be manageable and feasible for the average teacher;
- implementation of successful change efforts [should] be organic rather than bureaucratic; and
- avoid the do something, anything syndrome", by having a definite plan.

From these five guidelines, it is clear that innovation, being original and having a definite plan, stands central to the success of curriculum implementation. Innovation also forms part of the most important 21st-century skills, as advocated by Kay (2010:xv; see also 1.4.1) and Trilling and Fadel (2009:45–60; see also 2.3.1.1). This discussion will be resumed and elaborated on in Chapter 3.

It is important to conclude from section 2.5.4 that successful implementation of a curriculum needs to consider the capabilities of teachers as well as 21st-century skills. Successful implementation of a curriculum also depends on specific role players, including teachers "who are directly involved with the implementation in the classroom", because "they modify and fine-tune the design work of their colleagues and outside professionals" (Ornstein & Hunkins, 2018:279). Teachers who are able to modify and fine-tune the curriculum are discussed in section 2.6, which will elaborate on the second concept of the conceptual framework, namely praxis and its relationship to curriculum as praxis.

2.6   CURRICULUM AS PRAXIS

In Chapter 1 (see 1.1), I discussed Schwandt's (2007:242) views on the practical activity (or praxis) where the conduct of peoples' lives in the community is informed by them taking part in the practical activity. In this sense, practical wisdom could be the outcome where people live and act together, learning from and influencing each other. Viewing praxis in Schwandt's way then, explains why praxis could be vital for teachers, especially when teaching in the 21st century with the information overload that people are experiencing (see 1.1, 1.4.1). Practical wisdom differs from the firm control and fabrication of the productive activity (Schwandt, 2007:242), because the productive activity refers to the older, traditional technical philosophies on education.

Many theorists have contributed to the development of praxis, including Freire (1970) and Grundy (1987). Freire (1970) wrote extensively about the oppressive nature of life, where oppressors control the people they oppress. Following Freire's thoughts, Grundy (1987) applied Freire's ideas regarding praxis to the field of curriculum. In the sections to follow, my explanation of the term 'praxis' will be fleshed out, and my understanding of praxis will lead to my views on the second concept of my study, namely curriculum as praxis, especially for teachers. Thereafter, I will explain the relevance and necessity of curriculum as praxis for teachers in the 21st century.

2.6.1   Curriculum as product, practice or praxis

Grundy (1987), elaborating on the influence of praxis on education, contrasted the curriculum as product with the curriculum as practice and the curriculum as praxis. She also drew from the ideas of Habermas (1972) to explain the relevant interests of education (Grundy, 1987), referring to the technical, practical and emancipatory interests, which relate to the curriculum as product, the curriculum as practice and the curriculum as praxis respectively.

The curriculum as product is associated with the technical interest, which is associated with positivism where control is exercised over the relevant role players in a system (Grundy, 1987; Makrakis & Kostoulas-Makrakis, 2016). As indicated in Table 2.2, curriculum – as product, as a productive activity – thus resonates with the traditional major philosophies (idealism, realism), educational philosophies (perennialism, essentialism) and curriculum philosophies (scholar academic, social efficiency). Emanating from these traditional philosophical ideas, 'control' in an educational context means that education is teacher-centred, because control is exercised over people's (i.e. the learners') environment, based upon the knowledge they (the learners) already have (Grundy, 1987). In this product-oriented curriculum, teachers have strict and forceful control over learners' learning environment, because the belief is that only the teachers have the knowledge that the learners still have to acquire. The ends were decided and the means were directly planned before the actual event of teaching even started (Cornbleth, 1988). Phan, Lupton and Watters (2016:1257) also confirm that this product-oriented curriculum is "fixed and ready-made prior to [learners'] learning". It is evident that a curriculum, designed to achieve specifically set objectives, has at its core a technical interest as productive activity (Grundy, 1987; Makrakis & Kostoulas-Makrakis, 2016; Schwandt, 2007:242). The learners' learning is so strictly controlled that a specific product of a learner can be produced at the end of the teaching process. This technical interest, underpinning the curriculum as product (see Table 2.2), directly relates to the subject-centred curriculum designs within schooling in the conservative tradition (see 2.5.1.1), the technical–scientific approach to curriculum development (see 2.5.2.1) and curriculum implementation as instrumental action (see 2.5.3.1). As was explained earlier (see 2.5.1.3, 2.5.2.1, 2.5.3.1, 2.5.3.2), this view of the curriculum is certainly too strict and limiting in the ever-changing 21st century.

As was discussed earlier in terms of the major philosophical developments, which influenced the educational and curriculum philosophies, a change came when the focus of education moved from teaching specified content to the process of learners' learning. Learners' experiences of the learning process thus became relevant (Phan *et al.*, 2016). Relating to the practical interest, this was called the "curriculum as practice" (Grundy, 1987:68). Knowledge is produced through meaning-making, and taking the right action within the environment is the purpose of the practical interest (Grundy, 1987). The practical curriculum design relates much to Stenhouse's (1975) research, where the process of making meaning of the world occurs in interaction between the facilitator and the learners (Grundy, 1987; Phan *et al.*, 2016). Curriculum components, such as objectives, content and resources, can be assembled in subtle ways to generate a coherent

curriculum (Cornbleth, 1988). Hence, referring to Table 2.3, curriculum as practice is theoretically underpinned by the progressive ideas of the major philosophies (pragmatism, existentialism), the educational philosophy (progressivism) and the (learner-centred) curriculum philosophy. Regarding the curriculum domains (see Table 2.3), this process-oriented curriculum resonates with the learner-centred curriculum designs in the progressive tradition (see 2.5.1.2), the non-technical–non-scientific approach to curriculum development (see 2.5.2.2), and curriculum implementation as mutual adaptation in curriculum implementation as situational praxis (see 2.5.3.2).

Curriculum as praxis is related to the emancipatory interest of the practical activity. Habermas (1972) in Grundy (1987) clarifies that emancipation refers to a state of autonomy, rather than dependency. Therefore, emancipation acknowledges autonomy and responsibility, where self-reflection becomes an imperative (Grundy, 1987). Grundy (1987) elucidates that the technical interest focuses too much on control without reasoning, which will not support autonomy and responsibility. Similarly, the practical interest will also not fully support autonomy and responsibility, because it is too focused on consensual meaning and understanding where learners could be deceived in their understanding (Grundy 1987). Therefore, the emancipatory interest focuses on "the ability of individuals and groups to take control of their own lives in autonomous and responsible ways" (Grundy 1987:19). Grundy (1987) and Makrakis and Kostoulas-Makrakis (2016) continue that the emancipatory curriculum comprises a continuous mutual relationship between self-reflection and action, including the facilitator as well as the learners (practical activity). Hence, as shown in Table 2.3, curriculum as praxis is philosophically underpinned by the reconstructive ideas of the major philosophies (pragmatism, existentialism, postmodernism), the educational philosophies (progressivism, reconstructionism, critical theory) and the (learner-centred and social reconstruction) curriculum philosophy. Regarding the curriculum domains (see Table 2.3), this reconstructive-oriented curriculum relates to the problem-centred curriculum designs in the radical tradition (see 2.5.1.3), the non-technical–non-scientific and critical emancipatory approaches to curriculum development (see 2.5.2.2), and curriculum enactment in curriculum implementation as situational praxis (see 2.5.3.2). Therefore, I discuss curriculum as praxis in section 2.6.2.

2.6.2   Curriculum as praxis

The process of action and reflection of curriculum as praxis should be directed towards bringing forth some change together with having a critical focus (Grundy, 1987:116–117). Grundy

(1987:101) further explains that the emancipatory interest of curriculum as praxis engages the learner, where the learner is not a passive receiver of knowledge, but rather "an active creator of knowledge along with the teacher". Being a passive receiver of knowledge is very technical, whereas a learner who becomes an active creator alongside a facilitator is much more non-technical, active and reconstructive.

In Chapter 1 (see 1.1), it was mentioned that Grundy (1987:114–116) explains that curriculum as praxis implies specific elements. To regard the curriculum as a form of praxis, Grundy (1987:114–116) explains the following elements:

- action and reflection, where the curriculum itself develops through the dynamic interaction of action and reflection, rather than being a set of plans to implement;
- praxis takes place in real-world contexts, and the curriculum cannot be constructed without implementation in real situations with real learners;
- praxis operates in the world of interaction, socially and culturally, meaning that the curriculum cannot only be about learning 'things', but should be a social act as well as a dialogical relationship between the teacher and the learners;
- the world of praxis is constructed, and knowledge is a social construction, because groups of learners become active participants while constructing their own knowledge; and
- praxis assumes a process of meaning-making; therefore, critical orientations to knowledge become pivotal.

Planning, acting and evaluating a curriculum thus become an active process of integration (Grundy 1987). Freire (1970:101) explains that education is constantly changing through praxis, specifically reflection and action, which truly transform people's reality. Transforming people's reality is "the source of knowledge and creation" (Freire, 1970:101), or knowledge construction. To demonstrate the similarities between the philosophical developments and the requirements of the 21st century for teachers' curriculum as praxis, I drew up five different tables. Table 2.2 shows the requirements for teachers of the traditional philosophical teaching period.

Table 2.2: Requirements for teachers of the traditional philosophical period

Traditional philosophical period		Teachers' requirements
Major philosophies	Idealism	- Model and mature representative of specific culture;
	Realism	- find and teach universal truth;
Educational philosophies	Perennial	- possessor of subject matter knowledge and instructional skills;
	Essential	
Curriculum as product (productive activity)	Scholar academic	- developer of rationality and intellect of learners through great works of the past;
	Social efficiency	- expert in subject field; - transmitter of truths and previously accumulated knowledge; - therefore, curriculum transmission.
Curriculum — Design	Subject-centred (conservative tradition)	
Curriculum — Development	Technical–scientific	
Curriculum — Implementation	Instrumental action (fidelity)	

Table 2.3 shows the requirements for teachers of the contemporary philosophical teaching–learning period, which are largely in contrast with the requirements of the traditional philosophical teaching period.

Table 2.3: Requirements for teachers of the contemporary philosophical period

Contemporary philosophical period		Teachers' requirements
Major philosophies	Pragmatism	- Guide, resource collector and facilitator;
	Existentialism	- engages learners actively;
	Postmodern	- respects learners' individual freedom of choice, open-minded, reflective;
Educational philosophies	Progressive	- includes variety of narratives (oppressors and oppressed);
	Reconstructive	- wary of pre-existing curriculum;
	Critical theory	- intellectual, critical, changeable, insightful, inspiring;
Curriculum as practice and praxis (practical activity)	Learner-centred	- facilitator guiding learners through problem-solving;
	Social reconstruction	- flexible, creative, collaborative; - uses learners' life stories as a starting point;

			- focuses on learners' interests; - researcher; - therefore, curriculum development and curriculum making.
Curriculum	Design	Learner-centred (progressive tradition)	
		Problem-centred (radical tradition)	
	Development	Non-technical–non-scientific (practical; critical)	
	Implementation	Situational praxis (mutual adaptation; curriculum enactment)	

Table 2.4 consolidates the requirements for teachers of the traditional and contemporary philosophical periods with those of the 21st-century skills and characteristics. Here it becomes even clearer that the requirements of the 21st century mostly resonate with the requirements of the contemporary philosophical period.

Table 2.4: Consolidated teachers' requirements in the 21st century

Teachers' requirements: traditional philosophical period	Teachers' requirements: contemporary philosophical period	Teachers' requirements: 21st century
- Model and mature representative of specific culture; - finds and teaches universal truth; - possessor of subject matter knowledge and instructional skills; - developer of rationality and intellect of learners through great works of the past; - expert in subject field;	- Guide, resource collector and facilitator; - engages learners actively; - respects learners' individual freedom of choice, open-minded, reflective; - includes variety of narratives (oppressors and oppressed); - wary of pre-existing curriculum; - intellectual, critical, changeable, insightful, inspiring; - facilitator guiding learners through problem-solving; - flexible, creative, collaborative;	- Mediator of constant change (see 1.1); - continuous self-development (see 1.1); - ability to learn on one's own (see 1.1); - facilitates interactive teaching–learning experiences (see 1.1); - self-directedness: taking initiative, with or without the help of other people to diagnose own learning needs, to formulate learning goals, to identify resources, to choose and implement appropriate

- transmitter of truths and previously accumulated knowledge; - therefore, curriculum transmission.	- uses learners' life stories as a starting point; - focuses on learners' interests; - researcher; - therefore, curriculum development and curriculum making.	learning strategies, and to evaluate learning outcomes (see 1.1); - situating learning in reality (see 1.4.1); - defines learning as a lifelong process (see 1.4.1); - digital literacy (see 1.4.1); - cultural competence (see 1.4.1); - inventiveness (see 1.4.1); - emotional awareness (see 1.4.1); - entrepreneurship (see 1.4.1); - critical thinking (see 1.4.1); - problem solving (see 1.4.1); - learning and innovation skills comprising learning to learn and innovate, critical thinking, problem solving, communication, collaboration, creativity and innovation (see 2.3.1.1); - digital literacy skills comprising information literacy, media literacy, and ICT literacy (see 2.3.1.1); - career and life skills reflecting flexibility, adaptability, initiative, self-direction, social and cross-cultural interaction, productivity, accountability, leadership and responsibility (see 2.3.1.1); - becoming 21st-century learners, learning from inquiry, design, collaboration (see 2.3.1.1).

Table 2.5 consolidates the requirements for teachers of the traditional and contemporary philosophical periods with teachers' requirements for curriculum as praxis. Here it becomes even clearer that the requirements for teachers' curriculum as praxis are aligned with the requirements of the contemporary philosophical period.

Table 2.5: Consolidated teachers' requirements aligned with teachers' curriculum as praxis

Teachers' requirements: traditional philosophical period = productive activity	Teachers' requirements: contemporary philosophical period = practical activity	Teachers' requirements: curriculum as praxis
- Model and mature representative of specific culture; - finds and teaches universal truth; - possessor of subject matter knowledge and instructional skills; - developer of rationality and intellect of learners through great works of the past; - expert in subject field; - transmitter of truths and previously accumulated knowledge; - therefore, curriculum transmission.	- Guide, resource collector and facilitator; - engages learners actively; - respects learners' individual freedom of choice, open-minded, reflective; - includes variety of narratives (oppressors and oppressed); - wary of pre-existing curriculum; - intellectual, critical, changeable, insightful, inspiring; - facilitator guiding learners through problem-solving; - flexible, creative, collaborative; - uses learners' life stories as a starting point; - focuses on learners' interests; - researcher; - therefore, curriculum development and curriculum making.	- Dynamically interacting between action and reflection; - within real-world contexts; - interaction between the social and cultural world; - constructs knowledge through meaning-making (see 1.1); - reflective; - active; - creative; - facilitates within contextual and social construction (see 1.1).

Table 2.6 consolidates the requirements for teachers of the contemporary philosophical period with the teachers' requirements for the 21st century and teachers' curriculum as praxis.

Table 2.6: Consolidated teachers' requirements in relation to the 21st century and teachers' curriculum as praxis

Teachers' requirements: contemporary philosophical period	Teachers' requirements: 21st century	Teachers' requirements: curriculum as praxis
- Guide, resource collector and facilitator; - engages learners actively; - respects learners' individual freedom of choice, open-minded, reflective; - includes variety of narratives (oppressors and oppressed); - wary of pre-existing curriculum; - intellectual, critical, changeable, insightful, inspiring; - facilitator guiding learners through problem-solving; - flexible, creative, collaborative; - uses learners' life stories as a starting point; - focuses on learners' interests; - researcher; - therefore, curriculum development and curriculum making.	- Mediator of constant change (see 1.1); - continuous self-development (see 1.1); - ability to learn on one's own (see 1.1); - facilitates interactive teaching–learning experiences (see 1.1); - self-directedness: taking initiative, with or without the help of other people to diagnose own learning needs, to formulate learning goals, to identify resources, to choose and implement appropriate learning strategies, and to evaluate learning outcomes (see 1.1); - situates 21st-century learning in reality (see 1.4.1); - defines learning as a lifelong process (see 1.4.1); - digital literacy (see 1.4.1); - cultural competence (see 1.4.1); - inventiveness (see 1.4.1); - emotional awareness (see 1.4.1); - entrepreneurship (see 1.4.1); - critical thinking (see 1.4.1); - problem solving (see 1.4.1);	Dynamically interacting between action and reflection; - within real-world contexts; - has interaction between the social and cultural world; - constructs knowledge through meaning-making (see 1.1); - reflective; - active; - creative; - facilitates within contextual and social construction (see 1.1).

		- learning and innovation skills comprising learning to learn and innovate, critical thinking, problem solving, communication, collaboration, creativity and innovation (see 2.3.1.1); - digital literacy skills comprising information literacy, media literacy, and ICT literacy (see 2.3.1.1); - career and life skills comprising flexibility, adaptability, initiative, self-direction, social and cross-cultural interaction, productivity, accountability, leadership and responsibility (see 2.3.1.1); and - becoming 21st-century learners, learning from inquiry, design, collaboration (see 2.3.1.1).	

My argument is that curriculum as praxis will best support education in the 21st century, especially when considering the philosophical developments and influences that underpin the three prominent curriculum domains of design, development and implementation. In section 2.6.3, I will elaborate on teachers' curriculum as praxis within the 21st century.

2.6.3   Teachers' curriculum as praxis within the 21st century

It was discussed earlier (see 2.5.3), that curriculum changes caused a resistance to change among some teachers. Teachers felt lost and uncertain about what the curriculum changes expected of them, because they did not receive sufficient and effective support during the curriculum changes (see 2.5.3). In this sense, Aoki (2005:115) argues that teachers are being oppressed within schooling in the conservative tradition, with the top-down approach of the subject-centred curriculum designs (see 2.5.1.1). Freire (1970) argues that the oppressed (i.e.

the teachers) should become critically aware of their oppression through praxis. This 'praxis' refers to reflection and action upon the world, especially in order to bring forth transformation (Freire 1970; Makrakis & Kostoulas-Makrakis 2016). Freire (1970) further emphasises that this action cannot only be intellectual, nor can it be mere activism without thoughtful reflection. As a result, true reflection should result in action (Freire 1970), in my study, through curriculum implementation and enactment.

Kemmis, Ax, Ponte, Rönnerman and Salo (2008:196) argue that, although resistance from teachers to change often stems from the individual professional person, this "fear of change" or "non-action", might be a question of competent professional behaviour, especially when reforms are being enforced. The competence of teachers' professional behaviour is relevant because teachers organise their own praxis, which is based on their own standards and criteria, and these standards and criteria of teachers are close to their own praxis (Kemmis *et al.*, 2008:196). In this sense, the professional teacher "is not an innovator with an obligation to adapt", but rather "a professional who reflects on his or her actions, who weights up the merits of imposed reforms, and guards their praxis from possible mistakes and misconceptions" (Kemmis *et al.*, 2008:196). Apple (2013) pre-empted this idea because he argues that teachers have already been involved and controlled for a long time by the restructuring of their jobs. Apple (2013:171) further argues this vital point, namely that departmental schools are under the control of government; therefore, people should expect schools to experience "intense pressure to act in certain ways". However, Apple (2013:171) also claims that it still does not mean that employees of school, especially teachers, "are passive followers of policies laid down from above". Even if government is trying to find "more efficient" ways of organising teaching, it still will not guarantee that teachers will act upon these more efficient ways, because teachers have a long history of practices and self-organisation, especially when their classroom doors are closed (Apple, 2013:171). Trilling and Fadel (2009:136) however claim that altering the world's classrooms and schools is vital for the success of the movement towards 21st-century skills.

Teachers' curriculum as praxis thus entails a "transformation of consciousness" (Grundy, 1987:99), which means that the ways in which a person reflects and acts in his or her environment, change. Education in the 21st century can therefore not separate teaching and learning, but should rather involve the act of teaching–learning as part of emancipatory pedagogy (Grundy, 1987). Learning becomes meaningful to learners when learners are actively included in their construction of knowledge; therefore, curriculum content generates meaning from its beginning rather than from its end (Grundy, 1987). In the constantly changing educational field, especially within the

fast-growing information of the 21st century, it seems vital to draw the meaning of curriculum content from its beginning, rather than from its end, where the end means the predetermined curriculum outcomes and content, and the beginning means new knowledge is constructed during the process of teaching–learning.

2.7   CONCLUSION

Chapter 2 focused on the first two concepts of the conceptual framework designed for my research. The first concept, curriculum, shows many influences from different philosophical developments; therefore, the philosophical underpinning of curriculum was discussed from the major philosophies to the educational philosophies and the curriculum philosophies. Each of these philosophical underpinnings showed development from traditional influences to more contemporary influences. These philosophical influences in turn initiated development in the curriculum domains of design, development and implementation. It became evident that the more contemporary philosophical underpinnings best support teaching–learning for the 21st century. The curriculum domains show similar influences from the contemporary philosophical underpinnings. Curriculum design and development hence influenced curriculum implementation to become more praxis-oriented than product- or practice-oriented. Therefore, it was argued that curriculum as praxis could best support the contemporary requirements that philosophical development poses to teachers of the 21st century.

Chapter 3 will follow with an elaborate discussion of SDL and the capability approach.

CHAPTER 3
A SELF-DIRECTED LEARNING CAPABILITY APPROACH

3.1   INTRODUCTION

In the previous chapter, I reflected on the relevance of curriculum as praxis for the 21st century. This chapter follows from the previous chapter with a discussion regarding self-directed learning (SDL) and the need for SDL for teachers' curriculum as praxis in the 21st century. SDL is discussed in section 3.2, after which the capability approach (see 3.3) and why it was utilised as the theoretical framework for my study (see 3.4) will be reviewed. The chapter ends with a clarification of the SDL capability approach that was applicable for my study to enhance teachers' curriculum as praxis (see 3.5). I thus start with the discussion regarding SDL in the following section.

3.2   SELF-DIRECTED LEARNING

From Chapter 2, it is evident that change in education is necessary within the 21st century, although change in education is not a new notion. The necessity for change in education is also maintained by Bolhuis and Voeten (2001), Hursen (2016) and Nasri (2017). Hursen (2016:73) argues that some professions need to be re-described because of the rapid changes in ICTs and that children need to be educated accordingly. He found that a curriculum developed to centralise authentic learning, had a positive influence on teachers' SDL (Hursen, 2016). Nasri (2017:1) agrees that active learning approaches should be applied rather than passive learning approaches; therefore, different roles and responsibilities should be adopted by teachers. In her research, Nasri (2017:1) focused on the teachers' point of view, because previous studies had focused on studying SDL from learners' points of view, and not much attention has been paid to studying SDL from a teacher's point of view. Hence, although this section focuses on SDL, the review of the body of scholarship will focus on the implications of SDL for teachers' curriculum as praxis. This focus is also related to the aims of my study (see 1.3). The following sections focus on describing SDL, explaining why SDL is pivotal within 21st-century education and clarifying why SDL is unavoidable for teachers in the 21st century.

3.2.1 What is self-directed learning?

A prominent definition of SDL that features often within this body of scholarship, is that of Knowles (1975:18) who describes SDL as the "process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes". Although Long (2000:11) explains that there have been many definitions for SDL, he (Long, 1987:3) earlier adds that SDL is "a personally directed purposive mental process usually accompanied and supported by behavioral activities involved in the identification and searching out of information". More directly, Bolhuis (2003:335) clarifies self-direction as "being in command [of] oneself, moving towards one's own goals". Knowles's definition is the most encompassing; his definition will therefore primarily be utilised for my study. From these definitions, it is already clear that having choices and being in control of one's own learning is inevitable for SDL to be successful.

Some scholars argue that SDL is imperative for adult education (Knowles, 1975; Krabbe, 1983; Merriam & Bierema, 2014; Straka, 2000:242; Zepke & Leach, 2002) whereas others (such as Bolhuis & Voeten, 2001; Van Deur, 2018) argue for the importance of SDL to feature in educating children. Louws, Meirink, Van Veen and Van Driel (2017) explain teachers' SDL as accommodating the idea that teachers formulate specific learning needs for themselves from where they can direct their own learning. This idea of teachers' SDL is exactly that on which my study focused; therefore, I agree that SDL is vital for adult education as well as for educating learners, but for my study, I focused specifically on schoolteachers. Krabbe (1983:373) and Teng (2019:1) strongly emphasises that the best way to enhance SDL in learners is to surround them with self-directed teachers. Consequently, it is important to realise that aims and objectives for enhancing SDL in learners directly have specific responsibilities for teachers' curriculum as praxis. Hursen (2016:74) agrees that teachers need the same skills as the learners they are teaching, i.e. motivation, attitude and SDL. Some specific personality traits that were found in SDL are that such individuals, or teachers:

- demonstrate initiative, independence and persistence in learning;
- accept responsibility for their learning;
- are capable of self-discipline;
- have a high degree of curiosity;
- have a strong desire to learn or change; and

- have self-confidence (Guglielmino, 1978; 2013).

From these personality traits, it can be deduced that self-directed individuals who take responsibility for their own learning, is very prominent, even if it is only mentioned as the second point above. Individuals need to show responsibility while demonstrating initiative, independence and persistence in their learning. They further need to be responsible by demonstrating self-discipline and having high levels of curiosity regarding their learning. Responsibility is also pivotal in presenting a strong desire to learn and to change into a self-directed individual with self-confidence. Furthermore, these traits are supported by the dimensions of SDL, as will now be elaborated.

Long (2000:16–20) refers to three primary dimensions of SDL, namely motivation, metacognition and self-regulation. He defines **motivation** as the "energy, drive or desire that encourages … an individual to accomplish a goal or task" (Long, 2000:16). **Metacognition**, generally means "thinking about thinking" where the person is conscious of how or what he or she is thinking (Long, 2000:18). Self-control acts as a prerequisite for **self-regulation**, because a person can regulate (or control) thinking while he or she may be aware and think about his or her thinking (Long, 2000:19). Prominent aspects of self-regulation are:
- making choices between alternatives;
- attributing values to consequences of the chosen alternative; and
- choosing between immediate and delayed consequences (Long, 2000:20).

Long (2000:20–22) continues by discussing the four secondary dimensions of SDL, namely choice, competence, control and confidence. **Choice** could refer either to the number of choices the learner (or the teachers in my research) should exercise, or it could refer to the number of choices that are available within the learning environment (or while planning for a specific learning environment) (Long, 2000:21). **Competence** directly relates to the result of SDL (Long, 2000:21); thus, the participating teachers could feel competent and confident about their own curriculum as praxis. Making choices are direct consequences of **control**; therefore, choice may be provided by the circumstances (or the teachers' own school contexts) and "[c]ontrol may change the circumstances" (Long, 2000:21–22). Therefore, if teachers could exercise more control over their own curriculum as praxis and their learning environments, they might also be able to change their own circumstances. **Confidence** refers to individuals (learners or teachers) who expect success and who will be more likely to learn and participate than individuals who expect to stagnate (Long, 2000:22).

These mentioned personality traits and dimensions of a self-directed individual are pivotal for teachers to be successful in effective curriculum as praxis in the 21st century. Subsequently, section 3.2.2, focuses on the importance of SDL for education in the 21st century and section 3.2.3 will continue on how SDL could assist teachers in the 21st century.

3.2.2   Self-directed learning within 21st-century education

Referring to section 1.1 and Table 2.4, Saks and Leijen (2014:190) and Curran, Gustafson, Simmons, Lannon, Wang, Garmsiri, Fleet, and Wetsch (2019:75) argue that the ever-changing world is related to the digital revolution, where self-directedness and SDL have become imperative, while regularly being explained as very important educational goals (Bolhuis, 2003:328; Bolhuis & Voeten, 2001:837). As these educational goals gain prominence, learners should also learn to study more independently, which should prepare them better for higher education, work and life (Bolhuis & Voeten, 2001:837) in the 21st century. From Table 2.3, it was also evident that the curriculum domains that should underscore 21st-century education and learning are:

- a curriculum that is designed to be learner- and problem-centred;
- curriculum development that is non-technical–non-scientific; and
- a curriculum that is implemented in a manner of situational praxis.

For Bolhuis (2003:328), four reasons could be inferred to argue for self-directed lifelong learning:

- the need to prepare school learners for higher grades where more independent study will be relevant;
- the rapid economic and technological changes cause alternatives in information and knowledge,
- contexts are expanding and becoming part of the global village, and
- teaching for self-directed lifelong learning truly contributes to a democratic society.

The first two reasons seem quite clear and relevant, while in the third and fourth reasons, the reference to the global village and the contributions to the democratic society might be somewhat unclear. Globalisation has caused the world and its people, in a sense, to become closer to one another. Friedman (2005) explains this notion as the world becoming 'flat'. This notion of change also brought with it an awareness of divergent beliefs, views and even habits of life, which has led to confrontations and dealing with different truths as part of a newly developing global village

(Bolhuis, 2003:328). Therefore, a truly democratic global society is needed, and SDL might contribute to this (Bolhuis, 2003:328). Darling-Hammond (1996; 2016; 2017a; 2017b) writes extensively about a democratic education and social justice. Democracy, as Berger and Luckmann (1967) explain, can only be effective when people have equal possibilities for informing themselves, solving problems, making well-thought-out choices and taking part in the social construction of reality. This reference to Berger and Luckmann (1967) is still relevant today and for my study, because democracy as well as the social construction of reality links with curriculum as praxis (see 2.3.2.3–2.3.2.5, 2.5.1.2). Equal opportunities to inform oneself relate directly to individuals' functioning(s) and capabilities, as will be discussed later (see 3.3) and making well-considered choices links fully with curriculum development, SDL and the capability approach.

The prescriptive stance of the Curriculum and Assessment Policy Statement (CAPS) seems to corroborate the curriculum theory of Ralph Tyler (1949) which was oriented towards producing similar products (learners) based on similar technical classroom practices, controlled by the teacher (Booyse & Du Plessis, 2014:14–23; Hoadley & Jansen, 2012:51). In contrast, the expectation of developing 21st-century skills of learners, as well as SDL capabilities of teachers, calls for interactive teaching and learning experiences (Bernhardt, 2015:1). In accordance with these expectations, the South African Department of Basic Education (DBE) (2011a:14) also underscores the value of curriculum as praxis and SDL as an educational goal by stating that the CAPS aims to ensure that learners acquire and apply knowledge and skills in ways that are meaningful to their own lives, by promoting knowledge in local contexts, while being sensitive to global imperatives. The DBE (2011a:14) also based the intended curriculum, amongst others, on the principle of active and critical learning as well as high knowledge and high skills. Active and critical learning discourages rote learning and rather encourages an active and critical approach to learning (DBE, 2011a:14). Goal 16 of the Action Plan to 2014: Towards the Realisation of Schooling 2025 (DBE, 2011b:9) states that professionalism, teaching skills, subject knowledge and computer literacy of teachers should improve throughout their entire careers, while it should not matter how prescriptive the intended curriculum seems to be. To realise this sixteenth goal, curriculum as praxis and SDL are vitally important. Steyn (2013:277) confirms that teachers need to be adaptable in accordance with the growing social and economic needs of South Africa as a developing country, which again corroborates curriculum as praxis and SDL.

When considering the importance of teachers' curriculum as praxis and the need for SDL in the 21st century, it is necessary to discuss and highlight how SDL could assist teachers with their curriculum as praxis in the 21st century. This discussion follows in the next section.

3.2.3   Self-directed learning for teachers within the 21st century

Confirming the argument of my study, Urban (2000:231) emphasises that schools have not changed, even though the empowerment of teachers, sharing decision-making with teachers and including teachers in site-base managements have been discussed exhaustively. The main concern stemming from this resistance to change is that "the majority of teachers continue to teach the same way they have always taught" (Urban, 2000:231). Nasri (2017:3) conducted a study about teachers' roles in promoting SDL amongst their learners, where it was concluded, "SDL requires a transformation from the authoritative role of the [teacher] into the [teacher] as a facilitator of learning because, to promote an active learning approach, [teachers] should acknowledge learners as equal learning partners". Therefore, teachers need to abandon their traditional authoritative roles by allowing and empowering learners to take control and responsibility of their own learning (Nasri, 2017:3). Fortunately, Nasri (2017:30) postulates that SDL could be fostered in the following ways, even if teachers are not comfortable to abandon their roles as authoritative figures in learning:

- teachers should establish a positive and collaborative relationship with the learners;
- teachers should recognise the available learning resources and restrictions within the actual learning context as this would allow for an effective implementation of SDL; and
- universities should play their part in assisting teachers to plan their teaching strategies, which facilitate the learners' learning direction by conducting ongoing, in-service training programmes, encouraging self-development, and supporting teachers to work alongside colleagues.

It was concerning for me to realise that these developments in education, towards curriculum as praxis and SDL and the aspirations that it proposes for 21st-century education, seem quite strenuous for teachers. Consequently, the problems about teachers' professional development were illuminated by Louws *et al.* (2017:171) as –

- not involving teachers in the choice of content;
- not taking teachers' needs into account;
- seeing teachers as the receivers of professional development rather than as being actively involved; and
- not considering teachers' experiences sufficiently.

As a solution, Louws *et al.* (2017:172) suggest that teachers show high ownership when directing their own learning; therefore, they explored the 'what', 'how' and 'why' teachers would want to learn. Variations exist in what teachers want to learn, especially when they have a choice about it (Louws *et al.*, 2017:172). These variations are knowledge of subject content, classroom management, curriculum, learners' learning processes, learning about school organisation, teachers learning about themselves as professionals, and acting as mentors for novice teachers (Louws *et al.*, 2017:172; Shulman, 1986). While teachers could exercise a choice in how they would want to learn, Louws *et al.* (2017:172) follow the types of learning activities of Meirink, Meijer, Verloop and Bergen (2009) who distinguish –

- learning by experimenting;
- learning by reflecting on one's own teaching practice;
- learning from others, which could include interaction or not; and
- learning by doing.

Louws *et al.* (2017) then add, keeping oneself up to date, which comprises reading professional literature and following training on one's own subject(s). Why teachers would want to learn is focused on the positive expectation that the learning will add value to a teacher's work environment, and that the learning will actually lead to the goal that they would want to achieve (Louws *et al.*, 2017:172).

I already referred to the problems of curriculum implementations where teachers are just expected to comply with other peoples' decisions (many times governmental) (see 2.5.3), but Mushayikwa (2013:277) raises another point of view when he argues –

> [U]nder normal circumstances teachers can rely on their institutions to provide the necessary support to enable them to adjust to a changing professional environment and keep abreast of developments in their profession. However, in impoverished societies this support is not forthcoming.

Mushayikwa (2013) found that teachers have started to invest in their own professional development. Some teachers started to make use of their own resources to ensure their learners' success. Earlier still, Bouchard (1996) referred to self-directed professional development (SDPD) where the teacher is central to the professional development process; therefore, teachers can exercise complete freedom of choice in selecting and prioritising their own areas of development. Beavers (2009) concurs that teachers should have a voice in their own professional development. Teachers having control and choices regarding their curriculum as praxis are thus prominently

supported by SDL. Therefore, with this research, I intended to explore how an SDL capability approach could enhance teachers' curriculum as praxis. The capability approach will thus be elaborated next.

3.3   CAPABILITY APPROACH

The capability approach as theoretical framework was applied within my study to inform and underpin the complete study, including the conceptual framework (see 1.4.3, 2.2). The theoretical framework will be identifiable and is utilised throughout my study, but it is also necessary to elaborate specifically on the theoretical framework that knitted all the different parts of my study together (see Figure 2.2). In this section, the origin and development (see 3.3.1), the central concepts (see 3.3.2), criticism on the capability approach (see 3.3.3), and setting a fixed list for the capability approach (see 3.3.4) will be discussed. Lastly, the capability approach as theoretical framework of my study (see 3.4) and an SDL capability approach to enhance teachers' curriculum as praxis (see 3.5) will be discussed.

3.3.1   Origin and development of the capability approach

The capability approach was developed quite recently, in 1980, by Amartya Sen, an Indian economist and philosopher. Robeyns (2005:94) defines the capability approach as "a broad normative framework for the evaluation and assessment of individual well-being and social arrangements, the design of policies, and proposals about social change in society".

Sen (2000:56) developed the capability approach in response to other approaches used to evaluate and measure well-being, because he assessed the information bases that were utilised for these other approaches. Income, for instance, was used in welfare economics as the information base for evaluation and, although income was acknowledged as a necessary resource for well-being, there were also other components of well-being that were not directly accessible through income (Sen, 1992:20). These components included being healthy and being able to make choices (Sen, 1992:20). Sen (1992:33) further argued that evaluations did not consider that different people would attain different levels of well-being when given the same income. Another outlook on the capability approach is that of Wells (2015:1) who explains that the capability approach is focused on the quality of life that individuals are actually able to achieve. Nussbaum (2003:35) confirms that equality of resources that are necessary to survive "falls short" because equal resources do not reflect that different individuals need different levels of resources

for them to function with the same level of capabilities. Consequently, individuals also have different abilities to utilise resources to actual functioning(s)[5] (Nussbaum, 2003:35). Sen (2000:73) suggests that, instead of focusing on the means of a good life, we should focus on the actual living that people achieve and the freedom that people have to achieve the types of lives that they want to lead. The capability approach should therefore focus on removing obstacles in peoples' lives for them to be able to live the life that they have reason to value (Robeyns, 2005:94).

Nussbaum (1997; 2000a; 2000b; 2003; 2011) altered the capability approach towards human rights issues and human development of women and social justice. Sen's (1980; 1992; 2000; 2004) arguments are not all wrong, but Nussbaum (2003:35) states that Sen does not take us very far regarding thinking about social justice, nor about the minimum level of capability for a just society. As a result, Nussbaum (2003; 2011:33–34) developed a list of central human capabilities where she refers to the importance of education to be included within central human capabilities. Amongst others, Nussbaum (2003:41) states that senses, imagination and thought and using these in a "truly human" way could be "informed and cultivated by an adequate education". This argumentation of Nussbaum (2003; 2011) underscores the necessity to include the capability approach in education, which she also discusses. Sen (2004:78) mentions the importance of being educated as a basic human capability, and Kuklys and Robeyns (2010:10) emphasise the importance of being well sheltered, being able to move around freely, and being educated as part of an individual's functioning(s). Tao (2013:3) confirms this need for the capability approach in education by stating that Sen's (2000) altered view on well-being provided new insights into understanding human development and teachers' practices and behaviours in schools.

In the next section, the central concepts of the capability approach will be discussed, followed by a discussion of the capability approach. The final part of section 3.3 will consider the possibility of setting a list of capabilities for teachers' curriculum as praxis to be enhanced.

3.3.2 Central concepts of the capability approach

Wells (2015) explains the central concepts of Sen's (1980; 2000; 2004) capability approach, and this structure will be used for the purpose of this section, but other scholars' work will also be included to emphasise the relevance of these concepts for my study. The central concepts of the

---

[5] 'Functioning' can be used in singular or plural form, but because it could differ from person to person, I decided to write it as functioning(s) to leave room for the different individual outcomes of the teachers. When one capability was realised it is called a 'functioning', or when more than one capability was realised, it is called 'functionings' (Nussbaum, 2011:24–25).

capability approach that will be explained are capabilities and functionings; valuation; and evaluation (Wells, 2015).

3.3.2.1 Capabilities and functionings

'Functioning' refers to what a person manages to do or be, in other words, his or her achievement or achievements (Kuklys & Robeyns, 2010:10; Nussbaum, 2011:25). 'Functionings' can be explained to be states of 'being and doing', such as being well-nourished or having shelter (Wells, 2015:1). Functionings comprise different capabilities that a person could potentially achieve, while involving the freedom of the person to choose between different ways of living or exercising his or her choice in action (Kuklys & Robeyns, 2010:10; Nussbaum, 2011:18). It is important to consider the capabilities from which each participating teacher in my study could choose, while also recognising the functioning(s) they had already achieved in terms of being self-directed towards their curriculum as praxis. When evaluating well-being and considering what people are actually able to be and do, Sen argues that mental reactions that people have are actually inappropriate for providing true information regarding how well a life is going (Wells, 2015:1). The quality of life should be evaluated in terms of functioning(s) and capabilities (Wells, 2015:1). The teachers' quality of their life as self-directed towards their curriculum as praxis was thus probed in terms of their own functioning(s) and capabilities.

3.3.2.2 Valuation

It is vital to consider which functioning(s) matter for the good life. Underpinned by Sen's (2004) idea that the focus of evaluating the quality of people's lives should be their capability to live the life they have reason to value and not their resource wealth or subjective well-being (Wells, 2015:1). Wells (2015:5) further states that we need a valuation procedure for determining the functioning(s) that matter for the good life and how much they matter. For the purpose of my study, the functionings that matter for a teacher's curriculum practices to become his or her curriculum as praxis, as part of living a 'good life' as a teacher were thus explored.

3.3.2.3 Evaluation

While considering the capabilities of people it is very important to identify the set of valuable functionings to which people have real access (Wells, 2015:6). Sen (2004:77) argues that the assessment of capabilities can occur for different reasons, and that the selection of relevant

capabilities and weighing them within differing contexts, should not occur without including discussion with the relevant people involved. Regarding the theory of evaluation or assessment, Sen (2004:78) states that identifying "what we are free to do and free to be (the capabilities in general)", in relation to our material possessions and the commodities we can command, is a strenuous task.

Sen voices various concerns regarding contemporary approaches to the evaluation of well-being (Wells, 2015:1), namely:

- individuals have different abilities for converting resources into valuable functionings (also confirmed by Robeyns, 2005:101);
- some people internalise their circumstances and the harshness that they are experiencing, which leads them not to desire what they cannot be expected to achieve;
- the fact that people have valuable options is significant, even if people choose not to utilise such options; and
- the complexity of reality should be reflected in its evaluation, rather than to exclude information in advance (Wells, 2015:1).

Sen's (2004:78) explanation provides two very important ideas for my study. Firstly, he sees a direct link between the evaluation theory and the general capability theory (also called 'capability approach'). Secondly, the identification of capabilities, which people are free to utilise, could be a very difficult task. The connection between the capability approach and the evaluation theory was mentioned in section 1.5.1, where realist evaluation was discussed as the philosophical orientation of the empirical research for my study and it will also be elaborated later (see 4.2). The next section will shed some light on a very relevant criticism of Sen's capability approach. The argument about the difficult task of identifying capabilities will be picked up in section 3.3.4.

3.3.3   Criticism on the capability approach

Alkire (2008:28) explains the normative proposition of Sen's (1992) capability approach as that when greater freedom for people exist, progress or development may occur. Sen (2000) considers the perspective of freedom, when he argues that freedom is in general a good thing, for all purposes, and capabilities should form part of the general good of human freedom.

Nussbaum (2003:33) assessed Sen's (2000) perspective of freedom by arguing that this perspective is too vague. She continues by arguing that some freedom limits others, "some are central and some trivial, some good and some actively bad" (Nussbaum, 2003:45). Nussbaum's (2003:44–45) reasoning is that where it might be some businesses' freedom to pollute the environment, it might limit the freedom of other citizens to live in an unpolluted environment. I agree with Nussbaum, because a general idea of freedom holds too many different meanings for different people. The South African DBE, for instance, has the freedom to provide schools with the explicitly prescribed curriculum documents for each teacher to follow (see 1.1). These documents might limit some teachers' freedom to adapt and change the outline of the curriculum – and even the content – to suit their individualised learners and contexts best, especially for education in the 21st century (see 1.1, 1.4.1). This freedom of the South African DBE might further limit teachers' freedom to become more self-directed regarding their own curriculum as praxis.

The next section will elaborate on the discussions regarding setting a fixed list of capabilities, including criteria for setting a list of SDL capabilities to enhance teachers' curriculum as praxis.

3.3.4 Setting a fixed list of capabilities

The discussion about setting a fixed list of capabilities is well known in the literature (Nussbaum, 2011; Robeyns, 2005; Sen, 2004). These discussions about setting a fixed list of capabilities will be addressed next, as well as my viewpoint on how such a list was included as a guideline within my study.

In a discussion about a fixed list of capabilities to strengthen the idea of a general capability approach, Sen (2004) argues firstly that a fixed list that was generated entirely from theory, will "deny the possibility of fruitful public participation" in determining which capabilities to include and why (Sen, 2004:77). Secondly, he argues that the valuation and the way to determine the weight and importance of capabilities to be included in a fixed list are also problematic, because people are too diverse and their contexts are too individualised (Sen, 2004:78). He does explain, however, that different lists of capabilities are not impossible and that different lists need to consider the purpose of the exercise for setting such a list (Sen, 2004:79). According to Sen (2004:79), Nussbaum's (1997; 2011) list of basic human capabilities is very useful, and there may be other lists for other purposes. Sen (2004:79) substantiates his view of diverse lists of capabilities by emphasising that different lists of capabilities should not be put against each other, but that different lists of capabilities should be used for different purposes and for particular

reasons, be it a specific assessment, evaluation or criticism. Nussbaum's (2011:7) list of central human capabilities, which she identified as requirements for a life of welfare, comprises:

- life;
- physical health;
- physical integrity;
- senses, imagination, thought;
- emotions;
- practical reason;
- affiliation;
- other species;
- play; and
- control over one's environment.

Robeyns (2005:70–71) proposes a procedural approach to the selection of capabilities for particular purposes. She explains that the capability approach is not a "fully fleshed-out theory", which means that the specifications that could still develop might be quite divergent (Robeyns, 2005:70). She continues by stating that these diverse specifications will each need a list of functionings and capabilities relevant to that specification (Robeyns, 2005:70). In the context of my study, I viewed teachers' curriculum as praxis as such a specification to develop its own list of functionings and capabilities, because what is expected of teachers and what they are actually able to do and to achieve, are not the same for every teacher in his or her own context. Education for the 21st century is already quite diverse and dynamic, but for my study, 'education' focused on teachers' curriculum as praxis to be more self-directed.

Robeyns (2005:70–71) suggests five criteria for drawing up a list of capabilities and functionings, namely:

- "Explicit formulation: all proposed list elements should be explicit, so [that] they can be discussed, [debated] and [defended].
- Methodological justification: the method of generating the list should be made explicit so [that] it can be [scrutinised and justified as appropriate for the relevant issue].
- Sensitivity to context: the level [of] abstraction of the list should be [in accordance with] the objectives for which [the capability approach will be used. A pragmatic approach to drawing up the list is thus needed].
- Different levels of generality: if the list is intended for empirical application or [implementing] policy [proposals] then it should be drawn up in two distinct stages. First,

an ideal stage, and [second], a [more] pragmatic [stage] that reflects the feasibility constraints.

- Exhaustion and non-reduction: the list should include all important elements, and those elements should not be reducible to others, [although] they may overlap".

I used these criteria developed by Robeyns (2005:70–71) to draw up a list of proposed capabilities and functionings for the teachers regarding their self-directedness towards their own curriculum as praxis. Directly relating to the third secondary aim (see 1.3) of my study, this list was explored and developed during the empirical process of my research, after which it was finalised as part of the fourth secondary aim of my study (see 1.3).

I will now continue to explain how the capability approach was utilised as theoretical framework of my study.

3.4   THE CAPABILITY APPROACH AS THEORETICAL FRAMEWORK

The underlying structure of how my study was conducted was formed by a specific theoretical framework, as Merriam (2009:2, 66) also confirms. Merriam (2009:16, 23, 69) explains that the focus of a study, the questions that are asked, the observations that are made, the questions participants are asked, the documents that are important, and how the data is interpreted all stem from the theoretical framework. Anfara (2008:869) also states that all aspects of the research process are affected by the theoretical framework. The capability approach, as theoretical framework, was used, because it provided a suitable structure to focus my study.

In essence, the capability approach constitutes what people are actually able to do and to be within their individual contexts, and to consider which real opportunities are actually available to them (Nussbaum, 2011:x). The choices that are actually available to people and that are not controlled by others are crucial within the capability approach (Kuklys & Robeyns, 2010; Nussbaum, 2011; Sen, 1992). Nussbaum (2011:152) explains that education has always been part of the capability approach, because through education, the capabilities that are available to people could be developed into "internal capabilities" (Nussbaum, 2011:152). This education, Nussbaum (2011:152) continues, comprises schools, family and educational programmes for children as well as adults. Another important reason for applying a capability approach during my research was that the formation from available capabilities to internal capabilities through education could provide lifelong satisfaction (Nussbaum, 2011:152).

Two concepts that emanated naturally from my study's theoretical framework are 'control' and 'choices'. These will be discussed next to clarify how control and choices underpinned the theoretical perspective (capability approach), especially in terms of the main concepts of my study ('curriculum', 'praxis', and 'SDL').

3.4.1 Control

The concept of control became relevant in Chapter 2 already (see 2.3.1.3, 2.3.1.5, 2.5.2.1, 2.5.3.1, 2.6, 2.6.1, 2.6.3), but it also featured in Chapter 3 (see 3.2.1–3.2.3, 3.3.4, 3.4.2 and 3.5). Initially it was discussed as part of the major philosophical perspectives of pragmatism (see 2.3.1.3) and postmodernism (see 2.3.1.5). In both these philosophical perspectives, the learner's self-control became eminent, in such a way that it was argued that the teacher's control cannot be central to the educational experience anymore. Both pragmatism and postmodernism argue for the distinction between the traditional influences and the contemporary influences where (traditionally) teachers in autonomous power positions maintained control over their learners. Currently, control should be given over to learners to be able to learn how to self-control their own learning experiences. This division between the traditional view of maintaining control and the contemporary view of becoming a facilitator was also emphasised by Nasri (2017).

The argument of maintaining control or giving control to people in less powerful positions became even more relevant when discussing curriculum development as a domain of the curriculum and referring to the technical–scientific approach (see 2.5.2.1). It was argued in this traditionally underpinned approach that the learning environment could be controlled, predicted and manipulated by a teacher. Referring to the curriculum domain of curriculum implementation and the approach of curriculum implementation as instrumental action (see 2.5.3.1), which are also traditionally underpinned, the efficient ways of controlling learners and the learning environment to achieve predetermined outcomes, were evaluated.

In the discussion of curriculum as praxis (see 2.6), this argument was raised again in a discussion of oppressors controlling those they oppress, relating to the firm control of the traditional technical philosophies of education. This argument focused more on curriculum as product, practice or praxis (see 2.6.1). The view of the curriculum as product related to positivism and the traditional philosophies, where control was utilised over people in a system – in my study, people in the

educational system. According to the traditional philosophies, education was teacher-centred, and teachers had strict control over the learning environment of the learners.

The argument of control changed with viewing the curriculum as praxis (see 2.6.1) where autonomy and responsibility for one's own learning became vital. Individuals within a system should thus start to take control of their own lives in an autonomous and responsible manner. A transformation of consciousness occurs where people start to reflect and act on their environment in a different way (see 2.6.3), resulting in not being oppressed by others.

Straka (2000) discusses the conditions that would promote SDL in the workplace. He considers different concepts and constructs for motivated SDL (Straka, 2000). For him, the concept of control comprises the constructs of cognitive control, metacognitive control and motivational control and with each of these, the individual is already placed in the centre of taking cognitive, metacognitive and motivational decisions for him- or herself (Straka, 2000:243). Straka (2000:243, 245) therefore explains SDL as –

> [A] process in which a person approaches a learning subject with an interest as regard the content as well as in the proceedings, applies strategies …, controls their application cognitively, meta-cognitively and motivationally, as well as evaluating by diagnosing and attributing the achieved learning result.

Nasri (2017) related individuals taking responsibility for their own learning with the control they have over their own learning when she found that some participants were not comfortable with being a facilitator who had to abandon their authoritative position. She concludes:

> [I]t is obvious that SDL requires a transformation from the authoritative role of the educator into the educator as a facilitator of learning because, to promote an active learning approach, educators should acknowledge learners as equal learning partners who have the power to make decisions about their learning (Nasri, 2017:7).

Nasri (2017:3) continues, "this shift requires educators to abandon their more traditional authoritative roles by empowering learners to take responsibility for and control of their learning". Nasri's study was conducted in a higher education context; therefore, it is my contention that it could inform teachers' professional development, where they would be able to take responsibility for their own learning as well as for controlling their own professional development.

It is evident in the SDL body of scholarly work that individuals who have control over what they want to learn and how they want to learn it, are motivated to continue learning (Balaban Dağal & Bayindir, 2016; Garrison, 1997). Garrison (1997:21, 23) states that control is central to SDL activities, although "[c]ontrol does not translate into social independence or freedom from influence". Increased learner control thus brings increased responsibilities (Garrison, 1997:24). From their research, Balaban Dağal and Bayindir (2016:398) conclude, "individuals with personal control show more control over their learning whereas individuals who believe in factors beyond personal control show lower levels of readiness during [the] self-directed learning process". Furthermore, "individuals with high level of personal control have an impact on self-directed learning readiness" (Balaban Dağal & Bayindir, 2016:399).

Lai, Gardner and Law (2013:281) explain that autonomous learning could be enhanced by SDL, because "learners take increasing responsibility for diagnosing their learning needs, finding their own preferred ways of learning and reflecting on their progress". However, a problem exists because "there is little support available for teachers who are novices at fostering autonomy through whatever means, including promoting and supporting SDL" (Lai *et al.*, 2013:282). Some reported solutions are to raise awareness of teachers about SDL, to distinguish between the roles of teachers and learners, and to facilitate reflection on applicable practices and beliefs of learners (Lai *et al.*, 2013:283). In this sense, reflection was practiced to bring about different actions and, although it was not named 'praxis', this dependence on reflection and action to bring about change in teachers' educational practices could refer to curriculum as praxis (see 2.6). Lai at al. (2013:288) further realised that the teachers' locus of control emanated from the research, because this is particularly difficult for teachers. They highlighted the locus of control as "teacher-control versus student-control" (Lai *et al.*, 2013:287–288). It was echoed again that, as the teachers grew in confidence of facilitating SDL, their need to control the learners' experiences became less and they realised that the students were able to take responsibility for their learning (Lai *et al.*, 2013:289). The teachers however realised that guidance was still needed, although Lai *et al.* (2013:289) emphasise that providing guidance is not taking back control.

3.4.2 Choice

Parallel to the development in the argument for own control for individuals in the educational system, the development for individuals to make their own choices or to exercise freedom of choice also gained prominence. Some evidence of the development in viewing individuals' choices differently was already mentioned in Chapter 2 (see 2.3.1.2, 2.3.1.4–2.3.1.5, 2.5.1.2,

2.5.3.2) and again in Chapter 3 (see 3.2.1–3.2.3, 3.3.1, 3.3.2.1, 3.4.2–3.4.3, 3.5). In the section on realism (see 2.3.1.2), it was mentioned that educational goals were framed to direct learners in making choices that would benefit the rational and hierarchical order of the time. During the existential time of thought (see 2.3.1.4), the restricted realist view of learners' choices changed to allow individuals to make their own choices, to construct their own reality and to define themselves. Education should therefore focus on developing a consciousness of making own choices, within a curriculum that caters for freedom of choice (see 2.3.1.4). Existentialism however emphasised the challenge of adhering to learners' freedom of choice within a compulsory educational system (see 2.3.1.4). Regarding the learner-centred curriculum designs within the progressive tradition (see 2.5.1.2), it was also stated that learners' individual choice became pivotal, especially for education in the 21st century. Following from these above ideas, it was argued that if curriculum implementation should occur as situational praxis (see 2.5.3.2), for the 21st century, then learners should be free to make their own choices and to take responsibility for these choices. Within postmodernism (see 2.3.1.5), the idea of having freedom of choice changed to a sense of chaos of choice, because individuals are confronted with too many choices.

Referring to the discussion of Long's (2000) primary and secondary dimensions of SDL (see 3.2.1), it was evident that choice and control are pivotal for enhancing a person's self-directedness. The teachers (as participants of my research study) were thus supported in gaining control of their thinking and of their own choices leading to their actions and reflections (curriculum as praxis). This discussion will continue in Chapters 4, 5 and 6.

3.4.3   Paradox of choice

According to Brockett (2006:27), the irony of too many choices is that it might potentially illuminate too many concerns and too much control, which could obstruct self-direction in learning. Brockett (2006:27) explains that SDL is all about making choices regarding one's own learning, but if too many choices can create chaos of choices, then freedom of choice could be limiting teachers. Brockett (2006:27) continues to explain that the times in which we are living are like no other and that choices are "virtually unlimited", also when it comes to learning.

Teachers, especially in the context of 21st-century education and for the purpose of my study, are viewed as individuals who are expected to become lifelong self-directed learners themselves and who also have unlimited choices on which to base their decisions. Choice, while often liberating, can potentially also become restricting and debilitating (Brockett, 2006:27). Teachers' resistance

to change, which has been discussed extensively (see 2.5.3, 2.6.3), might be a cause of enforcing too many choices on them. Thus, when teachers feel overwhelmed by choices, they might claim back control as the authoritative person in the classroom (see 3.2.3). Brockett (2006:28) then argues that if "we do not place some form of parameters on what we perceive to be viable choices, we can become overwhelmed by the options and, consequently, reduce the likelihood of making a good choice", which could also happen to teachers. Otherwise, we can also choose not to consider the freedom of choice that is now available to us, by only considering past experiences and what seemed to work in the past (Brockett, 2006:29). Teachers might also argue that what worked for them in the past, should still work now. In some instances this might be true, but regarding 21st-century education, much has changed and so should teachers (see 1.1).

SDL was therefore combined with the capability approach to be able to assist teachers in the choices they have to make to enhance their own curriculum as praxis.

3.5   A SELF-DIRECTED LEARNING CAPABILITY APPROACH TO ENHANCE TEACHERS' CURRICULUM AS PRAXIS

Tao (2013:3–4) notes an interesting development in the body of scholarly work where the capability approach is linked to teachers. She notes that some authors (see Unterhalter & Brighouse, 2007) have written about the role that teachers have regarding the well-being of students. Some authors (see Bates, 2007) have written about the responsibility of teachers and administrators to emphasise the development of capabilities as important educational goals and the discussion of children's capabilities that are often left under the control of parents and teachers (see Biggeri, 2007). Moreover, Mentz (2014) writes about the use of pair programming as a capability-creating tool. All these works share a main focus of incorporating the capability approach into education, toward improving the life, capabilities and education of the learners.

The rest of this argument focuses on the crucial element of the capability approach of people being able to choose to live a life they will value (see 3.3.1, 3.3.2.1–2.3.2.2). Robeyns (2005:95) explains that people should have freedom and valuable opportunities as well as capabilities to lead the lives they want to lead, and be able to do what they choose to do, to be the persons they want to be. When people have these substantial opportunities, they can choose the options most valuable to them (Robeyns, 2005:95). In relation to my study, I argue that teachers should have freedom and valuable capabilities, while choosing what they want to do, to be the teachers they want to be. My argument could become complicated in the sense that it could be problematic to

encourage teachers to do what they want to do, to become the teachers they want to be, because teachers might choose to find comfort in stagnating in the ways known or familiar to them. Although a bit dangerous, this is also the argument leading me to incorporate an SDL capability approach for teachers as opposed to only a capability approach to teaching.

Here I would also like to refer to Nussbaum's (2003) discussion of Sen's (2000) usage of freedom (see 3.3.3). Sen (2000) argues that any freedom is good, although it might be applied in a bad way, while Nussbaum (2003) argues that freedom in general is too wide and vague. I argue that the freedom for teachers to choose might also be too vague and overwhelming, and therefore teachers might need some structure or intervention regarding their choices to become the teachers they can be and want to be. For this argument, I refer to Brockett (2006:27) who emphasises choice as "one of the hallmarks" of SDL.

Considering the array of choices available to teachers of the 21st century, but also the overwhelming effect this might have on teachers, I would like to point to Brockett (2006:30) who claimed that facilitating SDL is about assisting individuals to realise the range of choices that are actually available to them. Today, SDL needs to be more about assisting individuals in two ways: to focus, determine priorities and to identify parameters from which to base decisions; and not to have emotional baggage after making a choice (Brockett, 2006:30). Both foci could be well underpinned by the capability approach. The focus then is first about helping self-directed learners to make good decisions; and second, to be content with one's choice, while realising that one could still improve. Therefore, the teachers, as self-directed learners, should be assisted in making good decisions regarding their own curriculum as praxis, while also recognising that they can still improve and take responsibility for their choices regarding their curriculum as praxis. To make good choices, Schwartz (2016:49) argues for the following steps to be taken:

- figure out your goal(s);
- evaluate the importance of each goal;
- array the options;
- evaluate the likelihood of each option to meet your goal(s);
- choose the best option; and
- use the consequences of your choice to modify your goal(s), the importance that was assigned to them and the way to evaluate future options.

These steps were utilised as part of the planning during the empirical research of my study, as will be discussed later (see 4.5.2). Brockett (2006:33) concludes that SDL is not only about freedom, autonomy and choices, but that it is also about doing, in other words, acting and reflecting. In the same sense, I will add that curriculum as praxis, SDL and capabilities are not only about control, choices and responsibility, but also about action and reflection.

3.6   CONCLUSION

Chapter 3 focused on the third concept of my study, namely SDL. Although SDL developed over many years, it is still relevant and crucial for education in the 21st century. Even though SDL has been researched as affecting adult learning and educating learners from different ages, it also holds influences for school teachers and more specifically teachers' curriculum as praxis, through SDL professional development. Chapter 3 further reflected on the theoretical perspective of my study, namely a capability approach. It was argued that an SDL capability approach could best support teachers in enhancing their curriculum as praxis. The detail of what such an SDL capability approach will comprise will be fleshed out and discussed in the following chapters.

CHAPTER 4
RESEARCH DESIGN AND METHODOLOGY

4.1   INTRODUCTION

The qualitative research design, philosophical orientation and methodology – which include the different processes of sampling, empirical fieldwork and data analysis – will be discussed in detail in Chapter 4. In my research, the qualitative research design was underpinned by realist evaluation as philosophical orientation and basic qualitative research as methodology. The way of sampling – together with the methods of data generation and of data analysis that were utilised – is also elaborated on below. The ethical considerations and procedures that were used in my study are also discussed. This research set out to qualify some teachers' positions regarding their curriculum as praxis and their self-directed learning (SDL) capabilities (see 1.2). Furthermore, the aim of this research was to focus on understanding the need to enhance the SDL capabilities of a selected group of teachers' curriculum as praxis in the 21st century, and to determine how teachers can be supported in utilising SDL capabilities to enhance their curriculum as praxis (see 1.3). From the onset of this chapter, I would like to emphasise that the findings of this research are not generalisable. The goal of this qualitative study was to contribute a rich and contextualised understanding of how a selected group of teachers' curriculum as praxis can be enhanced through an SDL capability approach.

4.2   PHILOSOPHICAL ORIENTATION

Reference was made in Chapter 1 (see 1.5.1) to the philosophical orientation of my study. Realist evaluation, as explained by Pawson (2013), was used. Pawson (2013:15) elucidates that realist evaluation focuses on what it is about a specific programme that works for whom, under which circumstances, in which respects, in which time and why. Merriam and Tisdell (2016:4) confirm, "[e]valuation research collects data or evidence on the worth or value of a program, process or technique." For the purpose of my study, the process that was evaluated, was self-directed professional development (SDPD) applied as intervention. Van Bell, Marchal, Dubourg and Kegels (2010:2) confirm that realist evaluation has been used in social care, education policies and education programmes. Ogrinc and Batalden (2009:662) continue that complex systems, such as the complexities of education, require regular monitoring and evaluation to improve these systems.

Pawson (2013:15) explains that realist evaluation is theory-driven, because it searches for and refines explanations for the effectiveness of programmes or the evaluation of educational interventions. Therefore, realist evaluation has an explanatory focus (Ogrinc & Batalden, 2009:661; Pawson, 2013:14–15) and in my study, a part of the explanations will be focused on the effectiveness of the SDPD. Realist evaluation comprises multi-method data rather than only focusing on one method of data generation, and the contexts, mechanisms and outcomes need to be considered (Ogrinc & Batalden, 2009:661, 663; Pawson, 2013:14, 19–21). The contexts, mechanisms and outcomes emanate from the understanding that the programme works (i.e. the outcome is favourable) because of the action of some underlying mechanism, which only occurs in some contexts (Pawson, 2013:22). Furthermore, Ogrinc and Batalden (2009:662–664) refer to five basic steps in realist evaluation. These five steps and their relevance for my study are explained next.

In my research, the first step was to generate working theories and then to select a promising theory to start with. The capability approach was selected as the theory and theoretical framework to explore the support that could be provided to teachers for enhancing their curriculum as praxis. The second step was to formalise the hypothetical patterns of the contexts, mechanisms and outcomes (Ogrinc & Batalden, 2009:663). These contexts, where the data was generated, were determined by the participating schools, while the planning and conducting of the processes, through which the SDPD was implemented, determined the intended and unintended outcomes that emanated from the applied mechanisms in different contexts. The third step constituted implementing the intervention (Ogrinc & Batalden, 2009:664), which in my study, was the SDPD intervention that was shared with the participating teachers on a continuous electronic basis. While the third step was taking place, the fourth step of collecting data continued. The fifth and final steps were to present an improved and refined theory to apply to future interventions (Ogrinc & Batalden, 2009:664), which is highlighted in Chapter 6 (see 6.3.3–6.3.4).

4.3   METHODOLOGY

As mentioned in Chapter 1 (see 1.5.2), a basic qualitative research as methodology was followed in my research. Merriam and Tisdell (2016:19, 23) explain that using qualitative research as methodology has been growing since the 1960s. Constructivism underlies a basic qualitative study; therefore, the researcher is interested in understanding the meaning that people would link to a phenomenon (Merriam & Tisdell, 2016:24). The main goal of basic qualitative research is to

uncover and interpret these meanings (Merriam & Tisdell, 2016:25). Therefore, qualitative researchers conducting a basic qualitative research are interested in how people interpret their experiences, how they construct their worlds, and which meanings they attribute to their experiences (Merriam & Tisdell, 2016:19, 24).

Yin (2011:7–8) also emphasises five features of qualitative research that were adhered to throughout my research. These five features, as explained by Yin (2011:7–8), are:

- studying the meaning of people's lives, under real-world conditions, which in my study, was the curriculum as praxis of the participating teachers;
- representing the views and perspectives of the people in a study, which were the views and perspectives of the participating teachers in my research;
- covering the contextual conditions within which people live, namely the contextual conditions where the participating teachers work;
- contributing insights to existing or emerging concepts that may help to explain human social behaviour, which my study contributed towards explaining and supporting teachers' curriculum as praxis engagement; and
- striving to use multiple sources of evidence rather than relying on a single source alone, which in my study constituted the interview data as well as the SDPD intervention data.

These five features were considered within the process of planning and conducting the empirical research of my study. To adhere to these qualitative guidelines, specific sampling strategies had to be followed, which are explained in the next section.

4.4   SAMPLING

While considering sampling in interview-based qualitative research, Robinson (2014:25) refers to four important steps. These steps and how they initially supported the sampling for my research are illustrated in Figure 4.1. Step one, defining a sample universe, involves the target group, which is determined by inclusion or exclusion criteria (Robinson, 2014:26). The only inclusion criterion for my research was that teachers had to teach within the province of North West in South Africa. Although Robinson (2014:25, 29) explains the second step as deciding on a sample size. For my research, I aimed at 36 teachers, and the third and fourth steps helped me to get to this sample size.

The sampling strategy, the third step (Robinson, 2014:25, 32), constituted stratified sampling for my research. In stratified sampling, the groups of cases need to be decided (Robinson, 2014:32) and for my research, these groups were the four different departmental school districts (Dr Kenneth Kaunda, Dr Ruth Segomotsi Mompati, Ngaka Modiri Molema and Bojanala) within North West. All schools teaching Grade 9 learners were then extracted so that three schools per departmental school district could be randomly selected. Merriam (2009:82) confirms that random sampling can be used within qualitative research. The schools in each district was numbered and then randomised in an Excel document. After randomisation, schools were selected from the top of the list downwards for each district. To have participants consent to a qualitative research project and then later withdraw, is not an unfamiliar occurrence. Therefore, I initially drew 12 random schools from each departmental school district. The reason for randomly selecting these schools from each district was to provide equal chances for each school to be included to participate. The reason for focusing my research on teachers teaching Grade 9 learners was that Grade 9 is the highest grade of the intermediate phase of formal compulsory education in South Africa. After completion of Grade 9, learners may decide to leave their formal education to get a job or to continue with their formal education to complete Grade 12, the final grade of formal education in South Africa. Grade 9 is also the final year of formal education before learners have to choose the subjects with which they would like to continue, together with some compulsory subjects, in the further education and training (FET) phase.

The target number of participants (Robinson, 2014:32) was three teachers (Teacher 1 [T 1], Teacher 2 [T 2], Teacher 3 [T 3] in Figure 4.1) per school, teaching Grade 9 learners; therefore, nine teachers per departmental school district and 36 teachers in total. These teachers taught different subjects, but for my research, this difference did not matter, because the teachers' curriculum as praxis was still considered individually.

The fourth step was the sourcing of the sample (Robinson, 2014:35), which took place after all the ethical requirements had been adhered to. I held an informative presentation at each school where the principal and school governing body (SGB) consented, as per the ethical requirements of the North-West University (NWU). The teachers could then freely decide whether they wanted to participate. The willing teachers then completed the consent form (see Addendum G) and submitted it to the independent researcher.
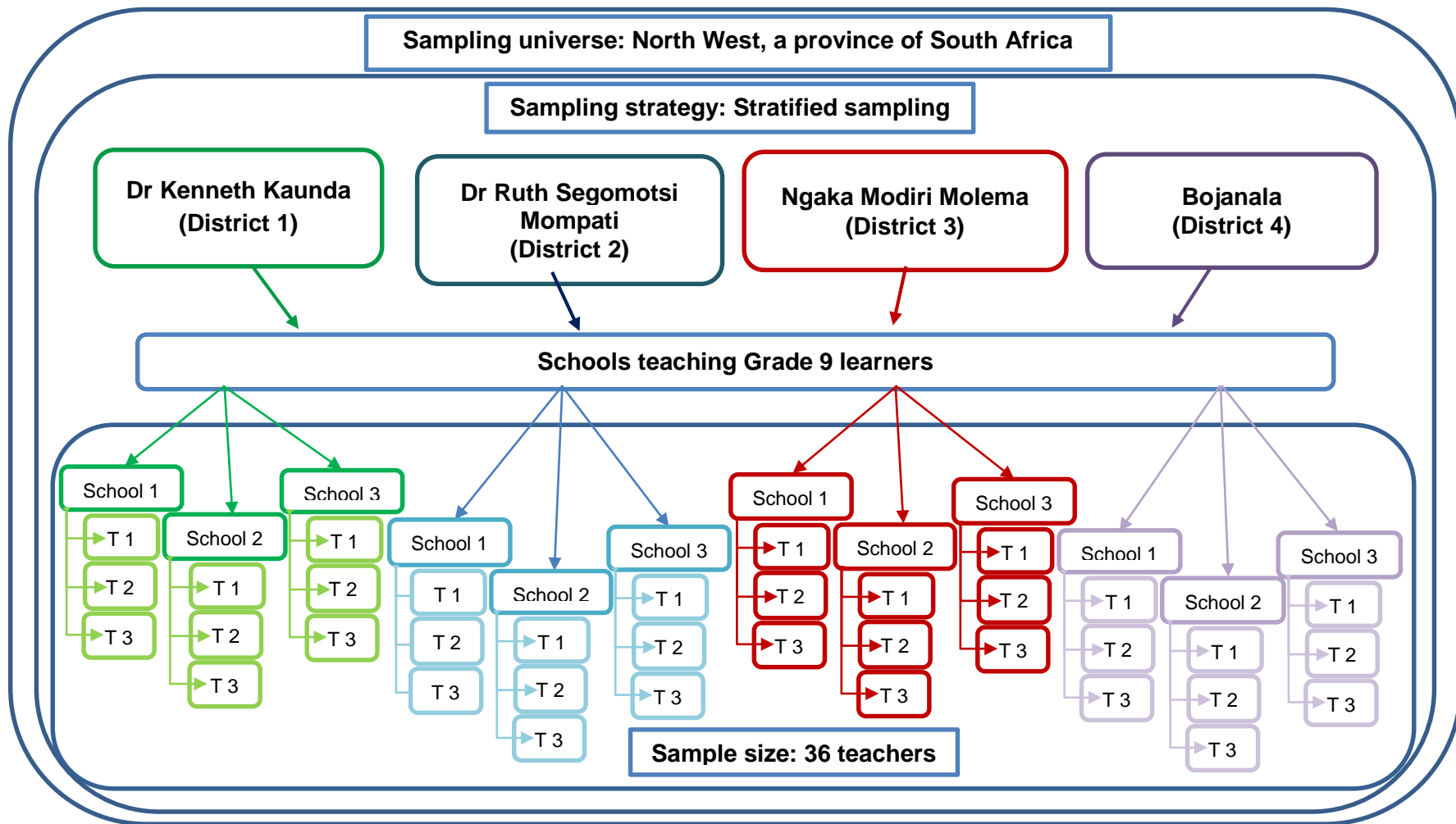
Figure 4.1: Initial sampling process

Source: Author's own conceptualisation

Figure 4.1, as discussed above, demonstrated the initial planning of sampling, but the sampling process did not work out exactly as was planned. Therefore, I will now discuss Table 4.1, which indicates what emanated from this planned sampling process. From the four departmental school districts, only schools from three districts opted for participation. I contacted more randomly selected schools from district 3 (during February 2019), but I still could not find any schools volunteering for participation. In districts 1, 2 and 4, I also contacted schools further than the initial 12 randomly selected schools. Eventually, school 3 consented in district 1, school 1 consented in district 2, and school 1 consented in district 4. From these schools, 12 teachers in total agreed to participate and the pre-SDPD interviews were conducted with them. Referring to Table 4.1 again, some teachers started to withdraw quite close to the start of the empirical research. Therefore, more schools were randomly selected and contacted for participation, and schools 17 and 57 in district 1 consented for participation. From the ten teachers from these two schools who consented for participation, only four teachers eventually participated in the pre-SDPD interview. These were teachers six and seven from school 17 and teachers one and three from school 57. In the end, I had conducted 16 pre-SDPD interviews. Table 4.1 shows the different parts of the empirical research and when specific teachers withdrew. I never asked the teachers why they withdrew, as voluntary participation and withdrawal at any stage of the research were part of the ethical procedures and informed consent of my research. The explanations that were voluntarily sent to me consisted of personal reasons, health reasons and time constraints. Thus, from the 16 participating teachers, 10 teachers responded regarding the first SDPD. For the other SDPDs, seven teachers responded every time and seven teachers continued to participate in the post-SDPD interviews.

Table 4.1: Actual sample and empirical process

District	School	Teacher	NAME	Pre-SDPD interview	SDPD 1	SDPD 2	SDPD 3	SDPD 4	Post-SDPD interview
1	3	1	Teacher 1	Yes	No – withdrew				
		2	Teacher 2	Yes	No – withdrew				
		3	Teacher 3	Yes	Yes	No – withdrew			
		4	Teacher 4	Yes	Yes	Yes	Yes	Yes	Yes
	17	6	Teacher 5	Yes	Yes	Yes	Yes	Yes	Yes
		7	Teacher 6	Yes	No – withdrew				
	57	1	Teacher 7	Yes	No – withdrew				

		3	Teacher 8	Yes	Yes	Yes	Yes	Yes	Yes
		1	Teacher 9	Yes	Yes	Yes	Yes	Yes	Yes
		2	Teacher 10	Yes	Yes	Yes	Yes	Yes	Yes
2	1	3	Teacher 11	Yes	Yes	No – withdrew			
		4	Teacher 12	Yes	Yes	Yes	Yes	Yes	Yes
		5	Teacher 13	Yes	Yes	No – withdrew			
		1	Teacher 14	Yes	Yes	Yes	Yes	Yes	Yes
4	1	2	Teacher 15	Yes	No – withdrew				
		3	Teacher 16	Yes	No – withdrew				

4.5   METHODS OF DATA GENERATION

The body of scholarship that was discussed in Chapter 2 (Curriculum as praxis for teachers of the 21st century) and Chapter 3 (A self-directed learning capability approach) came together and funnelled (as illustrated in Figure 2.2) within the capability approach applied as theoretical framework (see 3.4). From these theoretical discussions, the argument of my study led to an SDL capability approach, applied as SDPD, which might enhance teachers' curriculum as praxis (see 3.5). Concurrently, with realist evaluation as philosophical orientation and the basic qualitative research as methodology, the methods of generating data were planned.

The methods of generating data for my research comprised three phases, as illustrated in Figure 4.2. The initial phase, the pre-SDPD interviews, consisted of face-to-face semi-structured individual interviews with each of the 16 initially participating teachers. The second phase constituted the SDPD intervention period where data was generated through structured reflections that stemmed from the literature of curriculum as praxis and SDL. The concluding phase consisted of post-SDPD interviews, constituting another round of face-to-face semi-structured individual interviews with each of the seven remaining participating teachers. The three phases of generating data are elucidated next.
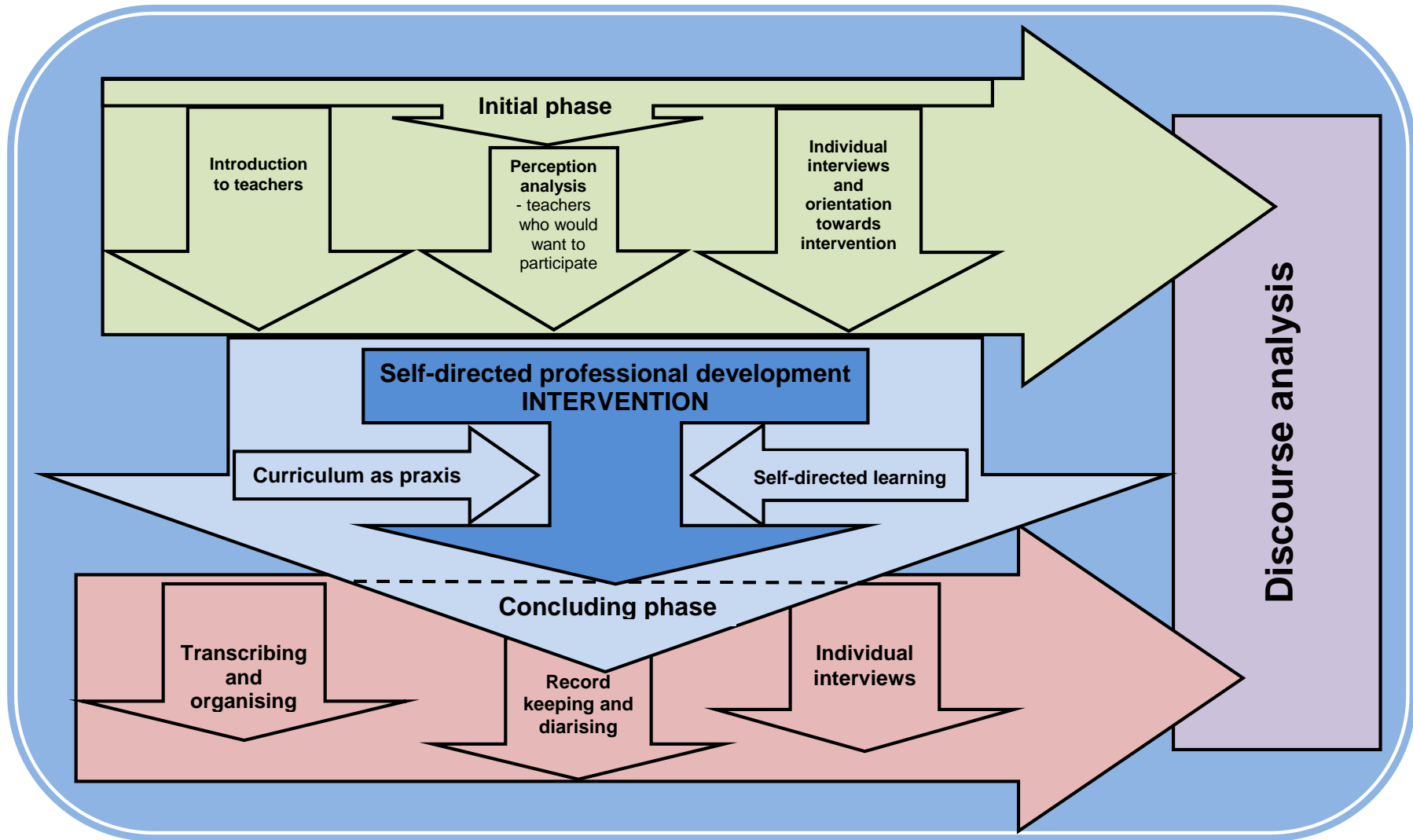
Figure 4.2: Empirical research process
Source: Author's own conceptualisation

4.5.1 Pre-self-directed professional development interviews

Interviews are utilised for gathering data regarding participants' ideas, beliefs, views, opinions and behaviours (Nieuwenhuis, 2009a:87). In my study, the pre-SDPD face-to-face semi-structured individual interviews were utilised for generating rich data from the participating teachers regarding their usage of SDL capabilities and their curriculum as praxis. Rich data can be generated by asking predetermined questions, while the researcher can probe and clarify the answers (Nieuwenhuis, 2009a:87). With the pre-SDPD interviews of my study, I (as the researcher) had the opportunity to probe and clarify the responses from the teachers. The predetermined interview questions (see Addendum A) emanated from the extensive review of the body of scholarly work of my study (Chapters 2 & 3) and as guided by the research questions.

The reason for starting with the pre-SDPD interviews was to explore the current position of teachers' curriculum as praxis in North West (see 1.2–1.3). The pre-SDPD interviews were also important to determine the current position of teachers in North West regarding their SDL capabilities (see 1.2–1.3). In aiming to answer these research questions, the pre-SDPD interview questions that were asked of each participating teacher, are listed in Table 4.2 (also see Addendum A). Table 4.2 also includes the relevant literature that supported me in asking these specific questions, as it emanated from my research.

Table 4.2: Pre-self-directed professional development interview questions

Interview questions	Relevant supporting literature
1. Which subject(s) are you teaching to Grade 9 learners?	This is a contextual question.
2. Who are all the role players that have an influence on how you plan, prepare and implement the prescribed curriculum of these subjects? 2.1 Can you please elaborate on each of these role players' influences? 2.2 Which other possible support systems or resources can you identify, that might be able to support you in implementing the curriculum?	The answer to this question should position the teacher within the general problem statement of my study (see 1.1 and 1.4).
3. Describe how you perceive the intended curriculum of SA (CAPS) of your specific subjects.	How teachers understand curriculum, indicates their position regarding curriculum as praxis (see 2.4).
4. While you are busy with a lesson, what are the roles and responsibilities of the learners in your class?	The answer to this question will demonstrate elements of curriculum as praxis and whether it is already practiced or not (see 2.6.2).
5. Explain your own process of planning, preparing and implementing your lessons.	Innovation, originality and a specific plan are vital for curriculum implementation to be successful (see 2.5.4). The answer to this question will also demonstrate whether the domains of curriculum that are needed for the 21st century are adhered to. These domains are learner- and problem-centred curriculum design (see 2.5.1), non-technical–non-scientific curriculum development (see 2.5.2) and situational praxis for curriculum implementation (see 2.5.3).
6. Explain what you do, as a teacher, to keep up-to-date and informed regarding educational developments.	The answer to this question should position the teacher within the general problem statement of my study (see 1.1 and 1.4).

The pre-SDPD interviews were followed by the SDPD as intervention, which is discussed in section 4.5.2.

4.5.2 Self-directed professional development as intervention

Following from Chapter 3, the SDPD as intervention (see Table 4.3 & Addendum B) was supported and structured by the theoretical framework of my study, namely the capability approach. Chapter 3 elaborated in detail in this regard. Realist evaluation and the basic qualitative research as methodology were also adhered to in planning this intervention.

The SDPD intervention was designed around structured reflections (see Table 4.3 & Addendum B). Structured reflections entail reflection that is performed regularly and systematically (Reymen, 2001:38; 2003:3). Structured reflections have been applied in many different contexts, including using it as a principle of design reflection (Reymen, 2001; 2003) or compiling structured reflections of teachers through images in order to empower them (Ryan, 2005), and conducting structured reflections though journal writing (Shumack, 2010). Structured reflections have also been applied in higher education to prepare and transform students through learning (Cazzell, Theriot, Blakey, & Sattler, 2014; Hayden & Chiu, 2015; Jackson, 2017; Johnston, Conneely, Murchan, & Tangney, 2015; Miller & Gonzales, 2016). Furthermore, Goodnough and Murphy (2017) used five prompts to which teachers had to respond on a regular basis. In Jackson's (2017) study, university students were required to write two structured reflections during the final stage of their work-integrated learning (WIL) period. Both these structured reflections had a word limit of 750 words. The reason for referring to these studies is to show briefly how diverse the background of structured reflections could be. It also shows how widely structured reflections can be used and that it can be adapted to support the specific requirements of a research study; hence, also the reason for finding it suitable for the SDPD intervention of my study.

For my study, structured reflections seemed to be viable, because such reflection can be adapted to suit individual teachers. The SDPD intervention of my study was conducted for approximately three to five months, during January to May 2019, with all the participating teachers. Although specific reflective prompts were shared with the teachers on a regular basis, the teachers' contexts and infrastructure differed, leading to different ways in which they were able to respond to these structured reflective prompts. Even though the teachers were asked to respond every two weeks, not all the teachers complied with this request. Because the schools teaching Grade 9 learners had been randomly selected, schools from different contexts were included. The participating schools ended up being rural and semi-rural schools, but this selection was not imperative for the focus of this research, although the different contexts had an influence on the teachers' capabilities. The structured reflections triggered individualised answers, and as

explained from the perspective of a capability approach, individuals "need an approach that defines achievement in terms of the opportunities open to each person" (Nussbaum, 2011:14). For Nussbaum (2011:x), the central questions to ask is, "What are people actually able to do and to be? What real opportunities are available to them?" These questions relate directly to the philosophical orientation of my study, namely realist evaluation, where the central question asked, "[w]hat works for whom in what circumstances?" (Pawson, 2013:15).

The structured reflections were shared on an electronic basis with each individual teacher. All the teachers preferred e-mail communication. Egan (2008:244) found that e-mail communication can be economical and time-efficient because it can reduce travelling time as well as transcription time, because the electronic communication will be captured automatically. E-mail interaction can also occur over a longer time; therefore, more time for reflection can be allowed (Egan, 2008:244). The longer reflection time can produce richer data than the data from only one or two interviews (Egan, 2008:244). Another reason for conducting the structured reflections electronically was that teachers from three of the school districts in North West participated in this research. North West stretches over a large geographic area; therefore, regular physical visits to each teacher were not possible. However, I provided continuous electronic support to assist the teachers with their questions regarding the SDPD. The continuous electronic support also served as a means of reflection to ensure that the teachers' SDL capabilities were extended in order to enhance their curriculum as praxis.

Ultimately, the structured reflections, to support the SDPD, were theoretically, scholarly, philosophically and qualitatively underpinned to provide the most suitable professional development to teachers. Table 4.3 demonstrates these underpinnings.

Table 4.3: Structured reflective prompts

Structured reflective prompts for the SDPD intervention	Underpinning from my research
SDPD 1:	

1. When you are reflecting about your curriculum process of planning, preparing and implementing your lessons, do you include any of the following?
 	
  i. Learner-centred teaching–learning activities and strategies;
  ii. Real-life problems to work through during your teaching–learning process;
  iii. Adaptability to be able to change your planning if the need or opportunity would come up;
  iv. Teaching–learning opportunities for deeper understanding by the teacher and the learners; and/or
  v. Reflection on the curriculum by the teacher and the learners within your context?
	Referring to the paradox of choice (see 3.4.3), parameters were provided for the challenges teachers may have experienced regarding their curriculum as praxis (see 2.6.2; Table 4.2). Teachers were also diagnosing their curriculum as praxis learning need, with the help of others, as is expected from SDL (see 3.2.1).

2. Please provide examples of how these five points are included in your curriculum process.	This question is a further reflection on question 1.
3. Please provide challenges that you encounter within your curriculum process in relation to these five points.	This question is a further reflection on question 1.
SDPD 2:	
1. Regarding the challenges within your curriculum process that you previously identified, formulate goals for yourself that you think you might be able to achieve within the next few weeks? Please consider:	Formulating learning goals is a specific element of SDL (see 3.2.1) and it is also an element of making good choices within the 21st century (see 3.5). The importance of each goal, the options available to each teacher to realise these

i. whether these goals are equally important; ii. what options you have to help you to achieve these goals; and iii. which option(s) will help you the most to achieve these goals.	goals, to evaluate these options and to choose the best options to reach these goals were also included (see 3.5).
2. Now formulate your own teaching–learning goal(s), with the option(s) that will mostly assist you in achieving these goal(s).	Formulating one's own learning goals is a specific element of SDL (see 3.2.1) and this question is a further reflection on question 1.
SDPD 3:	
1. Regarding the goal(s) and option(s) that you previously identified, which human and/or material resources do you have available to assist you in achieving these goal(s)?	Identifying human and material resources is a specific element of SDL (see 3.2.1).
2. How can you now go about learning more in order to address the challenges you identified in the SDPD 1?	Choosing and implementing one's learning strategies is a specific element of SDL (see 3.2.1).
3. During the following two weeks, I would like you to implement these options in your real context of planning, preparing and implementing the curriculum, in order to try and address your challenges.	Choosing and implementing one's learning strategies is a specific element of SDL (see 3.2.1), and this question is a further reflection on questions 1 and 2.
SDPD 4:	
1. Regarding the challenges within your curriculum process that you previously identified, how well were you able to address these challenges, keeping in mind: i. the goal(s) and option(s) you formulated for yourself; ii. the resources that you identified to approach and use; and iii. how you went about learning more about your challenges?	This question is a deeper reflection regarding the reflective prompts of the previous SDPD.
2. What did you learn from this self-directed professional development intervention? And will you be able to apply it again?	This question is a deeper reflection regarding the reflective prompts of the previous SDPD.

| 3. | What are the challenges that you experienced or foresee that could hinder you in applying this self-directed professional development process again in order to improve your curriculum process (curriculum as praxis)? | This question is a deeper reflection regarding the reflective prompts of the previous SDPD as well as future implementations. |

The pre-SDPD interviews and the SDPD were followed and concluded by the post-SDPD interviews, which are discussed in the next section.

4.5.3 Post-self-directed professional development interviews

Post-SDPD interviews were conducted during May and June 2019, to corroborate the data (Nieuwenhuis, 2009a:87) that emerged from the pre-SDPD interviews and the SDPD as intervention. Other important reasons for conducting the individual semi-structured face-to-face post-SDPD interviews were:

- to determine the teachers' adapted position regarding their SDL capabilities;
- to explore the teachers' adapted position regarding their curriculum as praxis within their own context and the 21st century; and
- to determine how some teachers might be supported in the future by utilising SDL capabilities to enhance their own curriculum as praxis (see 1.2–1.3 & Addendum C).

In aiming to conclude these research questions, the post-SDPD interview questions that were asked of each participating teacher, are listed in Table 4.4 (also see Addendum C). Table 4.4 also reflects the relevant literature that supported me in asking these specific questions.

Table 4.4: Post-self-directed professional development interview questions

Interview questions	Relevant supporting literature
1. Will you please explain and elaborate on how you experienced the intervention period?	This is a general reflective question regarding the SDPD intervention.
2. When you implement a lesson now, what are the roles and responsibilities of the learners in your class?	The answer to this question will demonstrate elements of curriculum as praxis and whether it is now being practiced or not (see 2.6.2).
3. Explain your own process of planning, preparing and executing your lessons now after the intervention period.	The answer to this question will demonstrate whether the teacher's position regarding his or her curriculum as praxis for the 21st century has adapted, regarding the relevant domains of learner- and problem-centred curriculum design (see 2.5.1), non-technical–non-scientific curriculum development (see 2.5.2) and situational praxis for curriculum implementation (see 2.5.3).
4. Describe how you reflect about your teaching process, in order to adapt the way(s) in which you implement the curriculum.	This is a further reflective question regarding the success or shortcoming of the SDPD intervention.
5. Explain how important you, as a teacher, think it is to be a lifelong learner that stays up-to-date and informed regarding educational developments.	The answer to this question should position the teacher within the general problem statement of my study (see 1.1 and 1.4), as well as the success or shortcoming of the SDPD intervention.
6. Please elaborate on what you, as a teacher, need within the 21st century to enhance your own curriculum process.	Although the capabilities of the teachers have been incorporated in the previous questions and the SDPD intervention, this question reflects specifically on the possible capabilities for teachers' curriculum as praxis in the 21st century.

Figure 4.2 below illustrates the complete process of the empirical research, as was explained above.

4.6   METHOD OF DATA ANALYSIS

Six classes of data were generated as was planned from the beginning of my research (see 1.5.5, 4.7.4) and as was addressed in the previous section (see 4.5). The pre- and post-SDPD interviews were audio-recorded with a voice recorder and then transcribed verbatim, directly after the interviews had taken place. All the participating teachers consented for the interviews to be recorded. Jones (2011:11) confirms that the spoken language should become detached from the original context, and in discourse analysis, this detachment occurs when the discourse is generated with some sort of recording device, and then transformed into written text which can be analysed. The detachment of the spoken recorded language only occurred for the purpose of analysing the data and not for total detachment from the contextual circumstances of the participants.

Five processes were included to separate the teachers' discourses from their original context, because of their relevance to the discourse analysis process of my research. These processes, namely framing, selecting, summarising, resemiotising and positioning will be explained and utilised from Jones's (2011:11) viewpoint.

- In **framing**, borders are drawn around the phenomenon and, in my study, this related to the teachers' position regarding their curriculum as praxis in terms of an SDL capability approach.
- **Selecting** constitutes selecting specific features of the phenomenon for representing the phenomenon. The features of the phenomenon emanated from the review of the body of scholarly work of my study as well as the generated data.
- **Summarising** involves determining the level of detail used to represent the features referred to above.
- **Resemiotising** refers to the translation of the phenomenon from one semiotic material to another, which occurred in transcribing the data from the voice recordings.
- **Positioning** constitutes the claiming of social identities, which are based on the first four processes.

After these five processes had taken place, all the data was coded by making use of ATLAS.ti, which is a computerised program that is applied for qualitative data analyses. Initially, a priori coding was used, but open coding was also used not to limit the codes that emanated from the data, as confirmed by Saldaña (2016:115). These codes were then categorised to highlight the

themes. Throughout this process of organising and coding the data, I was in contact with my promoters, who also checked the coding of data.

4.7   TRUSTWORTHINESS OF DATA

The idea of trustworthiness constitutes how the researcher can convince an audience that the research findings are worth noticing and taking cognisance of (Babbie & Mouton, 2008:276). Achieving higher trustworthiness is possible through four different principles: credibility, transferability, dependability and confirmability (Babbie & Mouton, 2008:276–278; Merriam, 2009:211, 213). These four principles are discussed below in reference with my study.

4.7.1   Credibility

Credibility inquires how the research findings match reality (Merriam, 2009:213). Credibility can be achieved through triangulation, member checks, alternative explanations or persistent observation, the researcher's position and peer examination (Babbie & Mouton, 2008:277; Merriam, 2009:215–219). Triangulation procedures are important for researchers to utilise while conducting research, during the analysis of the generated data, and during the writing up of the research (Golafshani, 2003:604; Konecki, 2008:7). In qualitative research, triangulation could consist of asking different questions, seeking different sources, and using different methods (Babbie & Mouton, 2008:277; Carter, Bryant-Lukosius, DiCenso, Blythe & Neville, 2014:545; Golafshani, 2003:604). In my research, triangulation was adhered to by means of utilising different research methods in the sense that spoken data from the pre- and post-SDPD interviews, and written data from the SDPD was included. Member checks (Babbie & Mouton, 2008:277; Merriam, 2009:217) were also important to me, because data as well as the interpretations thereof had to be verified with the research participants. Alternative explanations or persistent observations are important because interpretations in various ways should be pursued while also constantly and tentatively analysing the data (Babbie & Mouton, 2008:277; Merriam, 2009:219). This was done throughout my research. Merriam (2009:219) explains that the researcher's position should be considered throughout a study by being conscious of the researcher's biases, dispositions and assumptions. This was also considered throughout my research. Credibility was assured by having a peer examination where a colleague of myself (an independent researcher) scanned some of the raw data and assessed whether the findings were in accordance with the data, as explained by Merriam (2009:220).

4.7.2 Transferability

The transferability of a qualitative study constitutes the possibility of the research to be executed in another context or with other participants (Babbie & Mouton, 2008:277; Merriam, 2009:223, 227). Assuring transferability of my research was addressed by using rich and elaborative descriptions. Merriam (2009:227) and Babbie and Mouton (2008:277) explain that such descriptions should include a very detailed presentation of the setting as well as the findings of a study. Another way to assure the transferability of a study is through maximum variation in the sample (Merriam, 2009:227), which was done in my research by selecting different sites and participants.

4.7.3 Dependability

The dependability of a study relies on the results of the study and how consistent it is with the data that has been collected (Babbie & Mouton, 2008:278; Merriam, 2009:221). Assuring the dependability of my research was done by way of triangulation, peer examination, considering the researcher's position and doing an audit trail. These principles have been discussed previously (see 4.7.1), except for the audit trail, which will now be discussed. An audit trail was included, which Merriam (2009:222) describes as an independent reader authenticating the findings of a study. A colleague of myself acted as the independent reader.

4.7.4 Confirmability

The degree to which the researcher's own biases are excluded from the findings, is referred to as the confirmability of the study (Babbie & Mouton, 2008:278). The confirmability can be verified by a confirmability audit trail for evaluating the conclusions, interpretations and recommendations of a study (Babbie & Mouton, 2008:278). Six classes of data were reviewed for this confirmability audit trail, namely the "raw data, reduction and analysis products of data, reconstruction and synthesis products, process notes, material on intentions, and dispositions and information regarding instrument development" (Babbie & Mouton, 2008:278). A complete paper trail that covered these six classes of data was developed and preserved throughout my research.

4.8   ETHICAL ASPECTS

The ethical soundness of any research is extremely important (Merriam & Tisdell, 2016); therefore, these aspects will now be discussed.

4.8.1   Institutional ethical requirements

To ensure that the ethical considerations of my research were taken into account, an ethical application was submitted to the Ethics Committee of the Faculty of Education, NWU, which was granted (Ethics number: NWU-00201-18-A2) (see Addendum D). Participants were not harmed during this research process, and participation was voluntary. Participants who wanted to withdraw from the research at any stage, could do so without any disrespect or mistreatment from myself as the researcher and without having to provide any reason for withdrawal.

4.8.2   Departmental ethical requirements

After the approval from the Ethics Committee of the Faculty of Education at NWU (see Addendum D) had been obtained, an application to conduct the research was submitted to the provincial Department of Education and Sport Development of North West. After this application to conduct the research had been approved (see Addendum E), the empirical process of my research commenced.

4.8.3   Informed consent by schools and participants

I approached the principals and SGBs of the randomly selected schools to explain the purpose of the research and the empirical process to them (see Addendum F). All Grade 9 teachers from these randomly selected schools where permission was granted, were then addressed regarding the purpose of this research. Teachers who were willing to participate were given a letter of informed consent (see Addendum G) by an independent researcher, which they had to sign before any empirical participation could commence. All the information and data gained from the participants were kept confidential and no identities of the participants will ever be revealed.

4.8.4   Logistical procedures

Feedback will be provided to the participants, if they request it. The data will be stored in a safe place at the NWU for at least seven years after my study had been completed.

4.9   CONCLUSION

Chapter 4 focused on the research design and methodology of my study. The qualitative design of my research used realist evaluation as philosophical orientation and basic qualitative research as methodology. Other aspects of the design and methodology that were addressed, were the sampling strategies, methods of data generation, method of data analysis, trustworthiness of the data and the ethical aspects.

Realist evaluation focuses on what works, for whom and in which circumstances; therefore, which aspects of an SDPD will work for which teachers and in which contexts. Considering this philosophical orientation, basic qualitative research was used in structuring the stratified sampling, the SDPD as intervention with the pre-SDPD and post-SDPD interviews, the discourse method of data analysis and the trustworthiness and ethical aspects of my study.

The data generated through this process of empirical research, are presented, discussed and consolidated in Chapter 5.

CHAPTER 5

DATA PRESENTATION, DISCUSSION AND CONSOLIDATION

5.1   INTRODUCTION

The previous chapters of my study (Chapters 1–4) consisted respectively of an overview of this study (Chapter 1), the literature review (Chapters 2 & 3) and the research design and methodology (Chapter 4). All these previous chapters thus underpinned, explained and contributed to the data that was gathered, which are presented, discussed and consolidated in Chapter 5.

To support the answering of the research questions (see 1.2, 6.2) best, I decided to present the data according to the methods of data generation, namely the pre-SDPD individual face-to-face interviews, continuing to the self-directed professional development (SDPD) applied as intervention and ending with the post-SDPD individual face-to-face interviews. The reason for presenting the data in this way is that not all the teachers who initially joined the research completed the SDPD (see Table 4.1); therefore, not all the teachers' development could be followed throughout the whole empirical process. A discussion of the specific set of data will follow on each presentation. After all the different sets of data had been presented and discussed, it will be consolidated.

5.2   PRESENTATION AND DISCUSSION OF DATA

It was explained previously (see 4.6) that ATLAS.ti was used for coding and categorising the data to establish the themes that arose from the data. These categories and themes were used to analyse and synthesise the data from each separate data set, which will now be presented.

Even though the subjects that the participating teachers were teaching at the time of this research were not vital for answering the research questions, it added to understanding each teacher's context. Of the participating teachers –

- four of the 16 teachers (2, 6, 9, 15) were teaching Mathematics;
- another four teachers (4, 8, 13, 14) were teaching Natural Sciences and Technology;
- two were teaching Arts and Culture (Teachers 3, 7);
- another two were teaching Economic and Management Sciences (Teachers 1, 5); and

- the last four teachers were respectively teaching –
  - Life Skills (Teacher 11);
  - English First Additional Language (Teacher 10);
  - Afrikaans Home Language (Teacher 12); and
  - Social Sciences (Teacher 16).

The diverse spectrum of subjects confirms that the specific subjects were not the main focus of my study, but rather the skills and competencies of individual teachers to interpret and implement the Curriculum and Assessment Policy Statement (CAPS) (see 2.4) within the 21st century. It further showed that how individual teachers interpret and implement the curriculum in its entirety, from a traditional or contemporary stance (see 2.3), irrespective of the subject(s) they teach, was vital for researching teachers' curriculum as praxis, specifically from a self-directed learning (SDL) capability approach. It should also be noted that the participating teachers also taught other grades and sometimes even other subjects. These teachers therefore not only taught one subject to only Grade 9 learners. For some teachers, this seemed to influence the time and effort they could spend to plan and prepare for their curriculum as praxis.

The different contextual factors were that the participating teachers were from different age groups, they were from different cultural background, they spoke different languages, and the school settings were rural and semi-rural (see 4.5.2). Most of the participating teachers were female (12 of the 16 teachers). From the seven teachers who completed the empirical research, four of the seven teachers were female. Therefore, I decided to present all the data by referring to the female gender, because it will make the reading of this chapter easier.

In the next section, the interview data from the pre-SDPD will be presented.

5.2.1 Presentation of the pre-self-directed professional development interview data

Referring to Table 4.1, there were initially 16 teachers who consented to participate in this research and with whom I conducted the pre-SDPD individual face-to-face interviews. Considering section 4.5.1 and Table 4.2, the data presented here was focused on exploring the position of participating teachers' curriculum as praxis at the time of this research and to determine their SDL capabilities (also see 1.2) before the SDPD as intervention was implemented. The themes that were developed after coding and categorising the pre-SDPD interview data were used to draw up relationship networks in ATLAS.ti regarding the internal links that emanated

between the main conceptual ideas (curriculum, praxis and SDL) of my research. If there was any indication of SDL capabilities or the elements of curriculum as praxis, then that relationship was pointed out within the ATLAS.ti network. The idea was not to quantify these links, but rather to provide an overall picture of the participating teachers' possible choices, through SDL capabilities, to enhance their curriculum as praxis.

The following over-arching themes emerged from the analysis of the pre-SDPD interview data, and will subsequently be presented and discussed next.

5.2.1.1 The personality traits of self-directed learners – teacher capabilities

The personality traits of self-directed learners (in my study, teachers), as was discussed previously (see 3.2.1), refer to teachers who:
- demonstrate initiative, independence and persistence in learning;
- accept responsibility for their learning;
- are capable of self-discipline;
- have a high degree of curiosity;
- have a strong desire to learn or change; and
- have self-confidence (Guglielmino, 1978; 2013).

These personality traits all came to the fore as available capabilities to the participating teachers. Although all the personality traits of a self-directed learner featured in the pre-SDPD interview data (see Figure 5.1), not all these personality traits were identifiable from all the teachers. These personality traits, in turn, also linked to the participating teachers' curriculum implementation and the elements of praxis (see 1.1, 2.6); therefore, their curriculum as praxis comprised:
- action and reflection;
- real-world contexts;
- interaction with other people;
- knowledge construction; and
- meaning-making of knowledge (Breunig, 2005; Grundy, 1987; Schwandt, 2007).

All the possible relationships that were identified from the participating teachers in terms of SDL capabilities, linked to the elements of curriculum as praxis, as indicated in Figure 5.1. Please note that these relationships do not imply that all the participating teachers showed all the personality

traits of self-directed learners. The following discussion will elaborate on the specific relationships that came to the fore in each participating teacher.
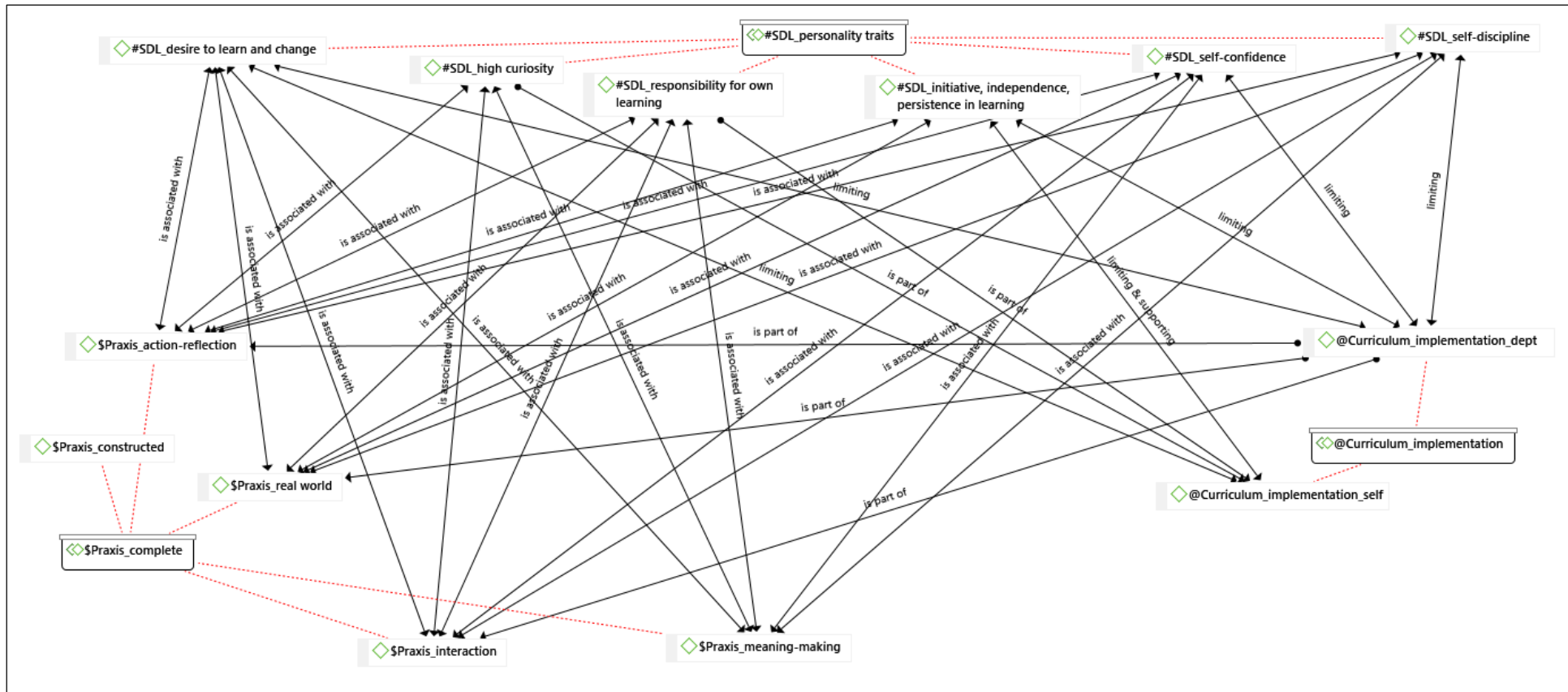
Figure 5.1: Personality traits of self-directed learners as featured capabilities for teachers' curriculum as praxis

Source: Author's own conceptualisation

Half of the participating teachers (3, 5, 6, 9, 10, 12, 13, 14) related to only one of the personality traits of a self-directed learner, namely (as indicated above) a desire to learn and change; and to take initiative, independence and persistence in learning. Teacher 16 related to taking initiative, independence and persistence in learning as well as to having self-confidence and self-discipline. Teacher 8 was the only teacher who related to four of the personality traits, namely a desire to learn and change; showing high curiosity for learning; taking initiative, independence and persistence in learning; and taking responsibility for own learning. These traits are discussed below, with quotations from the participating teachers. Please note that all quotations are reproduced verbatim and unedited.

i.   Self-directed learning capability – desire to learn and change

Some of the participating teachers (5, 6, 8, 9, 10, 12, 14) mentioned, directly and indirectly, that they have a desire to learn and change regarding different and new teaching–learning strategies, through furthering their own education, learning through workshops, learning from other schools, and learning about developments in their subject. Referring to workshops, Teacher 9 voiced a desire to learn and change regarding new teaching–learning strategies, when stating, "I would have preferred to learn about interesting methods to rather make the work more interesting and nicer for the learners. I have a need for that." Regarding furthering their own education, Teacher 8 explained, "so me enrolling for ACT [Advanced Certificate in Teaching] in Mathematics and after that Technology, related to the subjects I am teaching, that will empower me". Teacher 14 referred to learning from other schools, when stating, "collaboration between teachers within my school or within the neighbouring schools, [because] there are quite a few high schools here close by". Furthermore, Teacher 9 expressed a desire to learn and change regarding one of her subjects, "I wish I could be more up front with the Sciences, especially about what is new and really happening … but, yes, I did fall behind a bit."

While these teachers (5, 6, 8, 9, 10, 12, 14) voiced a desire to learn and change, two of these teachers (9, 10) also expressed comfort in their curriculum implementation. This comfort stemmed from the Department of Basic Education (DBE) expectations that are underpinned by the CAPS, the provided Annual Teaching Plan (ATP) and the provided School Administration and Management System (SAMS). Teacher 10 stated that the SAMS,

[T]ells you which assessments the learners should do, and it fairly agrees with CAPS, but sometimes I feel you do have to do something extra, but I also feel that I have to stick with that [SAMS], because there is a reason why they want those specific assessments.

In this sense, where Teachers 9 and 10 felt comfort for their curriculum implementation from the DBE expectations, it could be deduced that they preferred curriculum implementation as instrumental action, as they would not have to learn and change much regarding their curriculum implementation (see 2.5.3; Table 2.1), because the CAPS documents and expectations are provided to them. This lack of desiring to learn and change regarding curriculum implementation also featured in curriculum as praxis of these two teachers (9, 10). Both teachers showed a relation to interaction (as element of curriculum as praxis), Teacher 9 also related to real-world contexts (as element of curriculum as praxis), but neither of them related to any of the other elements of curriculum as praxis (action and reflection, knowledge being constructed, and meaning-making of knowledge). Referring to a neighbouring school, Teacher 10 said, "especially the one teacher, whom I see regularly, I can ask questions to". Regarding real-world contexts, Teacher 9 explained, "[w]e are now doing Financial Mathematics, so I try to give them [learners] real examples and ask them whether their parents ever speak to them about buying a car or a house."

From the teachers who expressed a desire to learn and change, five teachers (5, 6, 8, 12, 14) indicated that they were more directed by expectations from themselves, than by the expectations from the DBE for their curriculum implementation. The expectations Teacher 6 placed on herself, were guided by curriculum implementation as instrumental action, because she calmly stated, "I give instructions. They [the learners] will do most of the work in class, so I will explain the concept, show them how to solve some problems, introduce a chapter and then they do all the work." Teacher 6 revealed a lack of desire to learn and change regarding her curriculum implementation, but this was because she only expects herself to transfer the CAPS content, rather than to make meaning of the content. This actual lack regarding a desire to learn and change shown by Teacher 6, had a clear influence on her curriculum as praxis, because she only related to interaction (as element of curriculum as praxis), and only in the sense that her learners were sometimes grouped together, "[w]e know our learners so those who are weak, I would group them with stronger learners." Teacher 6 did not seem to practice any of the other elements of curriculum as praxis (action and reflection, real-world contexts, knowledge construction, meaning-making of knowledge).

Teachers 5, 8, 12 and 14, seemed to be directed towards curriculum implementation as situational praxis (see 2.5.3; Table 2.1) because of their own expectations. Teacher 14 expressed a desire to learn and change, because for her, learners should not only memorise facts, but also understand the reasoning behind why it is important to achieve specific outcomes,

> I like practical examples, so I want learners to understand why they are learning about photosynthesis or the body system and how it is of importance to them. Rather than just them knowing it, writing it in an exam, and just forgetting it.

These teachers (5, 8, 12, 14) who seemed more directed by their own expectations than those of the DBE, and who expressed a desire to learn and change, seemed to relate to more elements of curriculum as praxis than Teachers 6, 9 and 10. Teacher 8 revealed that she exercised action and reflection (element of curriculum as praxis) to be able to continuously learn and change, "I am an IT-person, so I don't want to be behind, I don't want to lack behind or remain in the dark." Teacher 8 also explained repeatedly that she incorporated 21st-century skills into her teaching, even though this was not expected by the DBE. Teacher 5 highlighted the relevance of real-world contexts (element of curriculum as praxis) when she explained:

> Accounting, we can take a receipt and we can deal with it. They [the learners] bring receipts, we take a look at the receipts, and then they would realise that even a packet of sweets that you buy, whether it's cheap or not, that it's about VAT [value-added tax].

All these teachers (5, 8, 12, 14) realised the necessity of interactions with colleagues (element of curriculum as praxis) (see Figure 5.1). Teacher 5 explained, "[w]hen I sometimes have issues, particularly concerning content, we normally discuss with others." Furthermore, Teachers 8, 12 and 14 referred to the construction of knowledge (element of curriculum as praxis) that occurred between themselves and the learners or even between learners under the facilitation of teachers, as indicated in Figure 5.1. Teacher 8 stated, "what I actually expect from my learners, is for us to engage. I tell them that I am a mediator, they should not just rely on me." From the pre-SDPD interview data it was clear that no evident links were made to meaning-making of knowledge (element of curriculum as praxis) by those teachers who identified a desire to learn and change. Another personality trait of self-directed learners that was only somewhat referred to (see Figure 5.1) was initiative, independence and persistence in learning, as will be elaborated next.

ii.   Self-directed learning capability – initiative, independence and persistence in learning

Teachers 3, 8, 13 and 16 presented initiative, independence and persistence in their learning relating to their own lesson planning and their own development and that of learners. Regarding her own lessons planning, Teacher 3 stated:

> [W]hat I do, is I look at the CAPS requirements and the prescribed textbook and I still make it my own. So, resources are from the internet and lecturers who taught me at university, otherwise, I do not have other support.

Teacher 8 clarified, "as a teacher, I took an oath … we [teachers] are lifelong learners and when you are a lifelong learner you are a researcher".

Although these teachers (3, 8, 13, 16) showed initiative, independence and persistence in their learning, Teachers 13 and 16 also conveyed comfort regarding their curriculum implementation. This comfort was underpinned by DBE expectations, because Teacher 16 explained,

> [W]e do get our annual teaching plan. The way it is designed helps you, even your pace, you must know that by this week I must have done this and then if you are behind it is helping you to try and move faster and if you are ahead then you can maybe give your learners more activities to be sure that whatever they did, they understood.

With such a sense of comfort that Teachers 13 and 16 were experiencing regarding curriculum implementation, it seemed that they preferred curriculum implementation as instrumental action (see 2.5.3; Table 2.1). This limited position regarding showing initiative, independence and persistence in learning also influenced the curriculum as praxis of Teachers 13 and 16, but not in the same sense. Teacher 13 only presented action and reflection (element of curriculum as praxis) regarding changing her filing structure and interaction (element of curriculum as praxis) with a retired teacher who used to teach Technology. Teacher 13 stated, "with Technology, I have this other teacher who taught it, with whom I can talk".

On the other hand, Teachers 8 and 16 presented action and reflection (element of curriculum as praxis) regarding implementing collaborative group work as well as interaction (element of curriculum as praxis) with colleagues at other schools and subject advisors and real-world contexts (element of curriculum as praxis). Teacher 16 explained that she applied group work in her class, which she learnt from other teachers, "I've learnt that from group discussions, when we

as teachers meet… It's working." Teacher 16 continued with an example of learners having to conduct interviews, "They must interview their parents, they must go and ask for permission to interview, write the thank you letter, and so on." Even though Teacher 16 expressed comfort in the DBE expectations, her own expectations directed and supported her to enhance her curriculum as praxis.

Furthermore, although Teacher 3 revealed initiative, independence and persistence in learning, she only related to interaction (element of curriculum as praxis) with colleagues from other schools and none of the other elements of curriculum as praxis. Unfortunately, Teachers 3, 13 and 16 withdrew close to the beginning of the SDPD; therefore, their position regarding their SDL capabilities and their curriculum as praxis could not be followed up.

iii. Self-directed learning capabilities – self-confidence and self-discipline

Teacher 16 was the only teacher who presented self-confidence and self-discipline in implementing learner-centred teaching–learning strategies. As was explained above, Teacher 16 revealed comfort in the DBE expectations, although her expectations of herself guided her to enhance her curriculum as praxis. Teacher 16 explained that construction of knowledge occurred between the learners, while doing group work, because she said, "[t]o be fair, I love to do that, because when they [learners] are in groups they feel like they own [this]."

iv. Self-directed learning capabilities – responsibility for own learning and high curiosity

Teacher 8 was the only teacher who demonstrated taking responsibility for own learning and having a high curiosity regarding 21st-century developments. Teacher 8 stated, "I always come and try to teach them [learners] the new skills of the Fourth Industrial Revolution, which is inclined to how to use these devices that they have… teaching them how to research." Teacher 8 continued, "I think because I am an IT [Information Technology] person and I can access whatever I need, if I am not informed. That is the principle that I am trying to instil in my learners."

Through the data analysis, it arose that the personality traits of self-directed learners were capabilities available to all the participating teachers at the time of this research, although few of these personality traits could be determined as already being definite functioning(s) of the participating teachers. Furthermore, the data analysis regarding the personality traits of self-directed learners revealed that six of the 16 teachers (1, 2, 4, 7, 11, 15) did not present any of the

personality traits of a self-directed learner, even though they were asked the same pre-SDPD interview questions. All of these teachers (1, 2, 4, 7, 11, 15) did however, relate to dimensions of SDL, as will be explained in the next section (see 5.2.1.2).

5.2.1.2 The dimensions of self-directed learning – teacher capabilities

It was discussed earlier (see 3.2.1) that SDL has three primary dimensions (self-regulation, metacognition and motivation) and four secondary dimensions (control, choice, competence and confidence). Although not all these dimensions clearly came forward from the pre-SDPD interview data, the necessity of these dimensions as possible SDL capabilities to enhance teachers' curriculum as praxis was still clear (see Figure 5.2). The relations between these SDL dimensions and participating teachers' curriculum as praxis, as indicated in Figure 5.2, will be discussed next.
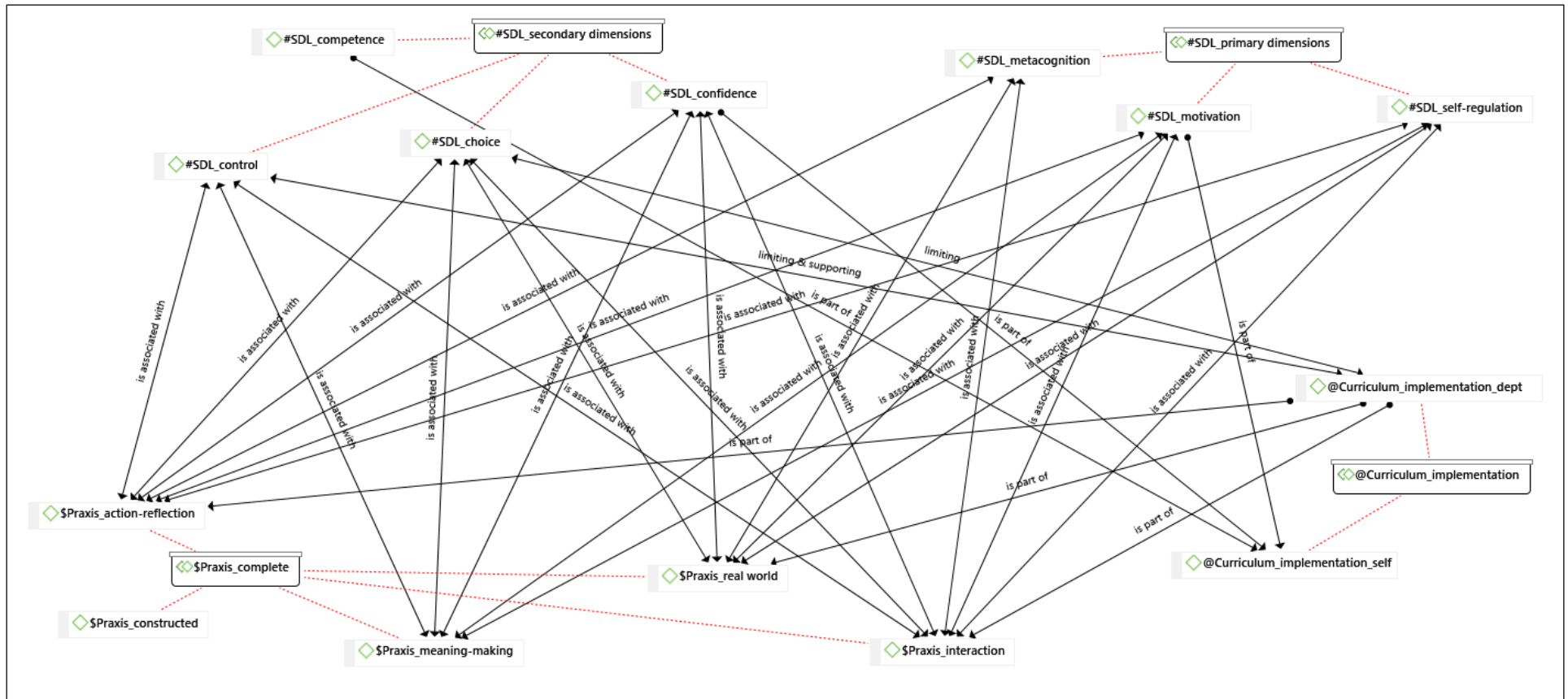
Figure 5.2: Dimensions of self-directed learning as featured capabilities for teachers' curriculum as praxis

Source: Author's own conceptualisation

Regarding the concepts 'control' and 'choices', it is important to refer to Chapter 3 (see 3.4.1–3.4.2) where it was extensively discussed that 'control' and 'choices' naturally originated from my research, but from different roots (philosophical, curriculum, SDL theoretical and capability theoretical). Both these concepts also featured specifically as secondary dimensions of SDL (see 3.2.1). The reason for highlighting these diverse roots of both concepts is that these roots also had an influence on the coding and analysis of the data of my research. Although control, as a secondary dimension of SDL, specifically implies the control a person has over her own learning (see 3.2.1), it was also clear that external factors on control could influence teachers' capabilities to exercise own control in their curriculum as praxis (see 3.4.1). These internal and external factors regarding control, featured in the pre-SDPD data, and are presented and discussed next.

i. Self-directed learning capability – control

Most of the initially participating teachers (1, 2 and 5–15) experienced control regarding their own curriculum planning (curriculum design), because of the DBE expectations. What was alarming, was that Teachers 1, 6, 9, 10 and 11 experienced this control as positive and comforting for their curriculum design and implementation. Teacher 11 shared, "I like the fact that the CAPS books tells you exactly what the child should learn. That helps a lot." This comfort in being controlled by the DBE expectations related to the traditional view on curriculum and curriculum as product and practice, rather than curriculum as praxis (see 3.4). The passiveness of these teachers (1, 6, 9, 10, 11) to exercise control over their own curriculum design and implementation, was directly visible in their curriculum as praxis. It seemed that the external control from the DBE expectations inhibited these teachers' capability to exercise control over their own curriculum as praxis. These teachers (1, 6, 9, 10, 11) all seemed to realise that interaction occurs between themselves and colleagues, colleagues at other schools and subject advisors, and between learners within their classroom. Teacher 1 stated, "we have much contact with other schools and other districts". Unfortunately, these teachers (1, 6, 9, 10, 11) did not mention any of the other elements of curriculum as praxis (action and reflection, construction of knowledge, meaning-making).

Teachers 2, 5, 7 and 12 seemed frustrated and limited by the control experienced because of the DBE expectations. Teacher 7 stated, "we have to follow the CAPS-document" and "we don't become successful, because it is inflexible with the work, but we have to abide". The teachers who seemed limited by this control (see Figure 5.2), still seemed to exercise curriculum as praxis, more than curriculum as product or practice (see 3.4). They (Teachers 2, 5, 7, 12) seemed to

exercise action and reflection, because as Teacher 7 explained, for every topic and assessment, she will do an analysis to determine whether the learners understood the content, "I do an analysis, like item analysis … I try to find out how did they [learners] fare. … that gives me direction about whether they are lacking something that needs to be revised." Teachers 2, 5, 7 and 12 also realised the relevance of real-world contexts. Teacher 12 explained, "I want a child to be able to articulate what he is thinking. That is what you communicate with." These teachers also identified being in interaction with colleagues, other schools, subject advisors, within their classroom and with the internet. Teacher 7 stated, "[t]here are support systems … every quarter we attend workshops and then … we present our difficulties. … They give us ideas on how to go about it". Even though no mention was made of meaning-making of knowledge occurring, Teachers 2, 5, 7 and 12 seemed to have more control regarding their own curriculum as praxis than Teachers 1, 6, 9, 10 and 11.

Another feature of control that became clear from the pre-SDPD interview data was that most teachers (2, 4–7, 9–11, 13) experienced comfort in having control over their learners in the classroom. Teacher 11 explained regarding her curriculum implementation, "it is basically a presentation, then they [learners] will do that work and then I mark … basically. And then revise again." This control, exercised as an autonomous person in the classroom, refers to the traditional influences on education and curriculum (see 3.4). Therefore, it could be deduced that these teachers are probably quite traditional regarding their curriculum implementation. These teachers' connections with the elements of curriculum as praxis, as has been discussed above, supported the traditionality of their curriculum implementation, and therefore, their curriculum as product and practice rather than curriculum as praxis (see 3.4).

An important point for discussion that arose from the pre-SDPD interview data is that the participating teachers' perspective regarding control did not include the essence of control as a secondary dimension of SDL. This important point of discussion will be continued in section 5.2.2.

ii.   Self-directed learning capability – choice

Teachers 2, 3, 4, 7, 8 and 13 acknowledged that they had choices, but these choices included choices regarding their own curriculum planning and implementation, by adding resources and trying to adapt to the learning barriers of the learners. Teacher 7 elucidated, "our learners are from different backgrounds. … [W]e are guided to firstly understand their backgrounds, so that when we teach, we try to find out about their different learning barriers. We teach according to

their barriers." Evidently, these choices only constituted adding ideas to the existing DBE expectations, which confirmed that these teachers were not able to exercise freedom of choice (see 3.4.2) as an SDL capability regarding their own curriculum as praxis.

iii.   Self-directed learning capabilities – competence and confidence

Only two teachers showed competence regarding drawing from their own higher education (Teacher 13) and their own curriculum planning and implementation (Teacher 16). Teacher 13 stated, "I refer back to my own work and what I learned when I was studying at university." Teacher 16 seemed to be implementing quite effective learner-centred strategies, with competence and confidence, when she explained, "someone [a learner] will represent the group as a group leader and then it doesn't mean the rest of the class doesn't have to take part … So I've found it to be very easy." These references to competence and confidence were vague and, unfortunately, both teachers (13, 16) withdrew close to the beginning of the SDPD.

iv.   Self-directed learning capabilities – self-regulation, metacognition and motivation

The primary dimensions of SDL did not emerge, except for Teacher 8 who presented being quite motivated. Teacher 8 stated, "teaching is my calling. I am very passionate about it, very passionate".

Even though not all the primary and secondary dimensions of SDL emanated from the pre-SDPD interview data, these dimensions seemed to be viable available capabilities for the participating teachers.

5.2.2   Discussion of the pre-self-directed professional development interview data

Firstly, from the presented pre-SDPD semi-structured individual face-to-face interview data (see 5.2.1), it became clear that whenever the participating teachers presented with a lack of SDL capabilities, a limited position to SDL capabilities or a passiveness towards SDL capabilities,[6] their curriculum as praxis was only somewhat visible. Curriculum as praxis for these teachers (1, 2, 4, 6, 7, 9, 10, 11, 13, 15) only related to the first three elements of curriculum as praxis, which

---

[6] As was indicated in section 5.2.1, the SDL capabilities that featured in the pre-SDPD interview data were a desire to learn and change; initiative, independence and persistence in learning; self-confidence; self-discipline; responsibility for own learning; high curiosity; control; choice; competence; confidence; self-regulation; metacognition; and motivation.

were to exercise action and reflection, within real-world contexts, while being in interaction with other people.

To exercise action and reflection seemed to be challenging for some teachers, because they seemed to reflect often, but the reflection rarely seemed to influence their action. Teacher 9 acknowledged (see 5.2.1.1) that she has fallen behind regarding some of the subjects that she was teaching at the time of this research (reflection), but she did not seem motivated to really change this position (action). This reluctance of Teacher 9 to take control of her own curriculum as praxis, featured in her post-SDPD interview as well (see 5.2.5), even though she experienced the SDPD as very positive (see 5.2.3). The growth of each individual teacher from the pre-SDPD interview to the post-SDPD interview will be clarified in section 5.3, where the discussion about Teacher 9's growth will also be picked up.

To teach within a real-world context and in interaction with other people, especially learners, are conditions for any classroom context. However, if teachers were exercising curriculum as praxis and thus curriculum implementation as situational praxis, they would also acknowledge the need for real-world contexts to be included and incorporated in their curriculum implementation (see 2.5.3.2, 2.6.1–2.6.2). Only Teachers 2, 4, 5, 7, 8, 9, 12 and 16 seemed to include real-world contexts into their curriculum implementation.

It was discussed earlier (see 2.5.3.2, 2.5.4, 2.6.1–2.6.2) that effective praxis cannot occur without interaction between teachers and other people, and interaction featured at all the teachers. Teachers 2 and 4–16 referred to interaction taking place in their classrooms, between themselves and the learners, but most of the teachers (1–5, 8–16) mentioned having positive interaction with colleagues as well as with colleagues from other schools and subject advisors.

Construction of knowledge was not clear in the pre-SDPD interview data, although Teachers 8, 12, 14 and 16 mentioned it, as explained in section 5.2.1. The fifth element, meaning-making of knowledge, was not mentioned at all. It was concerning to realise that the essential elements of curriculum as praxis only featured superficially in the pre-SDPD interview data, except for interaction, which seemed to occur often between teachers. This was concerning because, as was elaborated earlier (see 2.6), all the elements of curriculum as praxis are vital for meaning-making of knowledge and for education in the 21st century.

Secondly, the above presentation of the pre-SDPD interview data also highlighted that not all the participating teachers revealed a lack of SDL capabilities, limited positions towards SDL capabilities or passiveness towards SDL capabilities and hence, their curriculum as praxis. Teachers 5, 8, 12, 14 and 16 explained that they took responsibility for their own curriculum as praxis, rather than to be limited by the DBE expectations. These teachers presented more of the SDL capabilities (desire to learn and change; initiative, independence, persistence in learning; self-confidence; self-discipline; responsibility for own learning; high curiosity) and also seemed to exercise essential elements of curriculum as praxis (action and reflection, real-world contexts, interaction and construction of knowledge). These teachers (5, 8, 12, 14, 16) also seemed to have control over some elements of their curriculum as praxis.

Thirdly, the above presentation (see 5.2.1) of the pre-SDPD interview data, emphasised that Teachers 1, 6 and 9, 10 and 11 seemed reluctant to take control of their own curriculum as praxis, because of the overwhelming external expectations posed by the DBE. Only interaction (element of curriculum as praxis) featured with these teachers and Teacher 9 also associated with real-world contexts (element of curriculum as praxis). In contrast, Teachers 2, 5, 7, 12 and 14 who seemed frustrated by the control exercised by the DBE expectations, took more control of their own curriculum as praxis (action and reflection, real-world contexts, interaction). It was also found that none of the participating teachers seemed to take control of their own learning, as secondary dimension of SDL (see 3.2.1), although these teachers (2, 5, 7, 12, 14) took control of some elements of curriculum as praxis. If teachers are not able to take control of their own learning, then they are not able to change their teaching–learning circumstances (Long, 2000:21–22), or their own complete curriculum as praxis (see 3.2.1, 2.6). Therefore, the choices that might be available to them to realise as part of their SDL capabilities, might be restricted by this lack of control. Consequently, the participating teachers (2–4, 7, 8, 13), who referred to having choices, only exercised superficial choices regarding adding to existing DBE expectations and not freedom of choice regarding their curriculum as praxis.

Fourthly, from the presented data (see 5.2.1), it was clear that teachers (1, 2, 4, 6, 7, 9, 10, 11, 13, 15) who had a traditional curriculum stance only related to the prominent SDL capabilities of having a desire to learn and change, and the secondary SDL dimensions of being under control while only exercising limited choices. Teachers 3, 5, 8, 12, 14 and 16, on the other hand, seemed to have a contemporary curriculum stance, and they related to more SDL capabilities than the traditional teachers. Other SDL capabilities to which the contemporary teachers related were the personality traits of –

- having a high curiosity for learning;
- showing initiative, independence and persistence in learning;
- taking responsibility for their own learning;
- having some self-confidence and self-discipline;
- having the secondary SDL dimensions of competence and confidence; and
- having the primary SDL dimension of motivation.

It was discussed earlier (see 2.4) that the traditional or contemporary stance of teachers could influence their understanding of curriculum as praxis. This was confirmed from the pre-SDPD interview data. It was thus clear that, during the pre-SDPD interviews, most of the participating teachers seemed to be traditional in their curriculum understanding, which influenced their curriculum implementation and, consequently, their curriculum as praxis (see 5.2.1.1*i*, 5.2.1.1*ii*, 5.2.1.2*i*). The SDL capabilities were also not fully utilised, although these capabilities seemed to be available to the participating teachers. It was clear then that teachers' lack of utilising the SDL capabilities limited their curriculum implementation and, consequently, their curriculum as praxis.

5.2.3 Presentation and discussion of the self-directed professional development as intervention data

Earlier in this thesis (see 4.5.2), the development and process of the SDPD were explained. This section will therefore focus on elaborating on the SDPD data. In order to present the SDPD data in the best way possible, Table 5.1 was included. Table 5.1 is similar to Table 4.2, because the structured reflective prompts are repeated on the left-hand side. The structured reflective prompts are repeated to clarify the condensed responses from the participating teachers, and they are now included in Table 5.1. As indicated in Table 4.1, nine teachers also withdrew from the empirical research; therefore, the number of participants who were included at the beginning of Table 5.1 reduced from SDPD 1 to SDPD 4. The seven teachers who completed the SDPD were Teachers 4, 5, 8, 9, 10, 12 and 14. In this section it seemed futile to separate the presentation from the discussion of the SDPD data. Hence, the discussion of the SDPD data was included, following on Table 5.1.

Table 5.1: Condensed responses from participating teachers regarding the structured reflective prompts

Structured reflective prompts of the SDPD	Condensed responses from participating teachers
SDPD 1:	
1. When you are reflecting about your curriculum process of planning, preparing and implementing your lessons, do you include any of the following? i. Learner-centred teaching–learning activities and strategies;	All the teachers responded with 'yes', except for Teacher 5, who replied with 'no'.
ii. Real-life problems to work through during your teaching–learning process;	Eight teachers (3, 5, 8, 9, 11–14) said 'yes' and Teachers 4 and 10 said 'no'. Teacher 10 explained that she rather tried to allow the learners to use their own imagination than to include her view of real-life problems.
iii. Adaptability to be able to change your planning if the need or opportunity would come up;	All the teachers said 'yes'.
iv. Teaching–learning opportunities for deeper understanding by the teacher and the learners; and/or	All the teachers said 'yes' here, except for Teacher 5, who said 'no'.
v. Reflection on the curriculum by the teacher and the learners within your context?	Only four teachers (3, 8, 10, 12) said 'yes', while six teachers (4, 5, 9, 11, 13, 14) said 'no'.
2. Please provide examples of how these five points are included in your curriculum process. i. Learner-centred teaching–learning activities and strategies;	Teacher 10 elaborated, "[w]hen I plan my lessons, I do it in such a way that I can provide main points regarding the topic and the learners can add detail and examples of their own". Teacher 12 explained, "[w]e often have open class discussions, especially for practical demonstration lessons. Learners have the theory and now they need to put the theory to the test and either confirm or disprove it".

ii.	Real-life problems to work through during your teaching–learning process;	Teacher 5 stated, "I give real-life examples connected to the topic." Teacher 8 elucidated, "most of the scenarios are based on local areas or within the conditions of the community. I manipulate and ensure that data is within the objectives of CAPS."
iii.	Adaptability to be able to change your planning if the need or opportunity would come up;	Teacher 5 continued, "I change my presentation during lessons to cater for different learners." Teacher 12 explained, "[s]chool is per definition a place where you should be adaptable." Teacher 14 elaborated, "[d]uring the lesson and after each lesson, I do a lesson reflection to check if learners understood me or not. This helps me to know whether to change the lesson structure in order for it to be more effective and learner-centred. It is pointless to keep talking to the learners without them getting what you are saying."
iv.	Teaching–learning opportunities for deeper understanding by the teacher and the learners; and/or	Teacher 4 clarified, "I make use of videos to show the working of, for example, the heart." Teacher 8 continued, "as a lifelong learner I share practices of researching and deploying the internet as a useful tool."
v.	Reflection on the curriculum by the teacher and the learners within your context?	Teacher 12 stated, "[i]t occurs in-between." Teacher 14 stated, "I never do reflection with the learners."
3.	Please provide challenges that you encounter within your curriculum process in relation to these five points.	There were some similarities in the challenges that the teachers shared. These challenges were: • Ineffective group work (Teachers 3, 4). • Restricted or no time for reflection and learner-centred teaching (Teachers 3, 9). • Language barriers that restrict the learners' understanding of the content (Teachers 4, 8). • Limited resources (Teachers 5, 8, 9, 12).

	• DBE prescriptions (Teachers 9, 10, 12, 14).
	• Learners' limited motivation and interests (Teachers 3, 5, 10, 14).
SDPD 2:	

1. Regarding the challenges within your curriculum process that you previously identified, formulate goals for yourself that you think you might be able to achieve within the next few weeks.
 	
Please consider:
 	
  i. whether these goals are equally important;
  ii. which options you have to help you to achieve these goals; and
  iii. which option(s) will help you the most to achieve these goals.
	The teachers shared some similar views, as well as some different views regarding the goals they set for themselves in SDPD 2. These goals were as follows:
	
	• Implement science experiments to keep learners' attention and that most learners should pass the subject she teaches (Teacher 4).
	• Make resources for the learners and to learn about how to keep learners interested (Teacher 5).
	• Introduce continuous assessments through using ICT (Teacher 8).

2. Now formulate your own teaching–learning goal(s), with the option(s) that will mostly assist you in achieving these goal(s).	• A class average of above 67%, to implement continuous informal assessments, to have more practically oriented class sessions, and to include trips to practical industries (Teacher 9). • Grasp and include learners' interests (Teacher 10). • Make the content more relevant and necessary for the learners (Teacher 12). • Create resources because of the overloaded subject content and limited time, she wanted to implement effective group work and use effective worksheets (Teacher 14).
SDPD 3:	
1. Regarding the goal(s) and option(s) that you previously identified, which human and/or material resources do you have available to assist you in achieving these goal(s)?	Teachers 4, 8 and 9 stated having internet videos and a data projector as available resources.

2.	How can you now go about learning more in order to address the challenges you identified in the SDPD 1?	Teachers 5 and 14 referred to having photocopying machines to copy worksheets and other resources. Teacher 8, 12 and 14 mentioned liaising with colleagues as human resources. Teachers 10 and 12 noticed needing the learners as human resources.
3.	During the following two weeks, I would like you to implement these options in your real context of planning, preparing and implementing the curriculum, in order to try and address your challenges.	Teachers 4, 8, 9 and 14 implemented their plans, whereas Teachers 5, 10 and 12 did not implement their plans.
SDPD 4:		

1.	Regarding the challenges within your curriculum process that you previously identified, how well were you able to address these challenges, keeping in mind:
	  i. the goal(s) and option(s) you formulated for yourself;
	  ii. the resources that you identified to approach and use; and
	  iii. how you went about learning more about your challenges?
		Teacher 4 stated that some of the challenges were still there, but that worksheets, continuous assessments and experiments regarding the content seemed to focus the learners' attention better than when these are not used.
		
		Teacher 5 made extra resources, but she only started utilising these resources just before the post-SDPD interview.
		
		Teacher 8 explained that she was exposing the learners to use their mother tongue language to learn from and to understand the content. She continued that she used applicable examples to refer to rather than the examples of the textbooks with which the learners are not familiar.
		
		Teacher 9 said it is meaningful to reflect and to formulate goals. She ended up doing more informal assessments than she planned to do, but she also added that it was quite a short time to implement it.
		
		Teacher 10 did not implement her plan.

		Teacher 12 also did not implement her plan, but stated that it would definitely help. She continued that it is good to think differently about teaching, because one can get comfortable with just finishing the curriculum.
		Teacher 14 concluded, "[s]o some of the things that we spoke about, assisted me in making sure that I do cover the entire curriculum in time and I do follow up. I'm able to monitor that the learners actually do the work and that they do understand it."
2.	What did you learn from this self-directed professional development intervention? And will you be able to apply it again?	Most teachers (5, 8, 9, 10, 12, 14) answered that the SDPD taught them to think differently about their own teaching–learning to be more engaged with the learners, to do proper planning and to interact with colleagues.
3.	What are the challenges that you experienced or foresee that could hinder you in applying this self-directed professional development process again in order to improve your curriculum process (curriculum as praxis)?	Most teachers (9, 10, 12, 14) responded that time to complete all the DBE expectations was the biggest challenge. Teacher 8 answered that her fellow colleagues, who "does not want to be agents of change", really challenged her.

As indicated in Table 5.1, all the Teachers (4, 5, 8, 9, 10, 12, 14) set specific goals to reach, but only Teachers 4, 8, 9 and 14 completed SDPD 3 and SDPD 4. Teachers 4 and 12 experienced personal challenges during the research period and, although both completed the empirical research, their challenges hindered their SDPD, because they could not spend as much time on the SDPD as they would have preferred to. Teachers 5, 10 and 12 did not complete SDPD 3, although they did participate in the post-SDPD interview. Teacher 10 developed an elaborative plan during SDPD 1 and SDPD 2, but she never continued to implement it during SDPD 3, because of time constraints and because of her own planning.

During the SDPD 4 and the post-SDPD interviews, it was confirmed that all the Teachers (4, 5, 8, 9, 10, 12, 14), were positive about the SDPD. Direct quotes from these teachers will now be provided to share their experiences, which will be followed by a discussion to elaborate on each teacher's progress during the SDPD.

Teacher 4 stated, "it did put me to thinking quite a bit, I did try to think what I can do better", and she did implement her plan to address her goal of grasping and holding the learners' attention during teaching–learning. Initially, in the pre-SDPD interview, Teacher 4 did not reveal any of the personality traits of a self-directed learner. Through the SDPD, though, Teacher 4 seemed to gain awareness of SDL capabilities and learner-centred curriculum as praxis, as will also be discussed later (see 5.2.4–5.2.5).

Teacher 5 shared,

> [I]t was an eye opener … talking to you and coming up with the ideas and your questions, which will make a person think about other things, that if I hadn't talked to you about that I wouldn't have known about it. I would have just continued the way I was continuing and not think about other ideas.

Even though Teacher 5 initially, during the pre-SDPD interview, came across as quite contemporary regarding her curriculum as praxis, she still chose to follow up on her goal of creating resources for the learners. She did not quite get to implement these resources before the time of the post-SDPD interview, but in the post-SDPD interview, we had a lengthy discussion regarding specific teaching–learning strategies that might engage the learners better in her teaching–learning (Teacher 5's second goal). Therefore, Teacher 5 seemed interested in learning and trying out different approaches for her curriculum as praxis, which indicated that she was willing to take initiative for her own learning. Teacher 5's growth will be further discussed in sections 5.2.4 and 5.2.5.

Teacher 8 elaborated,

> It made a difference. It made me go and do introspections. It got me to be more engaged. It made me not to always come to the class and to always do a presentation. It made me to be aware that the learners also have to take centre stage and that it is what our curriculum aims at doing. Learning is not only depending on the teacher.

Teacher 8 already seemed to be contemporary in her curriculum as praxis during the pre-SDPD interview, but she still confirmed that the SDPD contributed towards her curriculum as praxis. Her curriculum as praxis seemed to enhance as well, as will be elaborated in sections 5.2.4 and 5.2.5.

Teacher 9 explained,

> This process that we were put through was very meaningful to reflect and to formulate certain goals. … It can really add value. … The process highlighted that proper planning could improve teaching and to set proper goals should make a difference in the quality of teaching. The curriculum, as provided by the department should only be used as a guideline; further planning is the teacher's own responsibility.

Teacher 9 initially came across as being traditional in her own curriculum as praxis, and this position did not really seem to improve with the SDPD, as will be elaborated in sections 5.2.4 and 5.2.5. Nevertheless, Teacher 9 revealed immense growth in relation to awareness of the worth of the SDPD and possible improvement of her own curriculum as praxis.

Teacher 10 also appeared to be positive about the SDPD, but although she completed the SDPD 1 and 2 thoroughly, she never continued to implement her plan. Interestingly, however, she blamed herself more than external influences. Teacher 10 explained,

> [T]ime had an influence, yes, but also my lack of planning … I was focused on the planning that I already had for this term […] I didn't apply it [the SDPD] now, but the planning [SDPD] I did would definitely help, because you do not always know what is going on with the learners and I think that is why we lose their interest many times … it would be more important to listen to the learners.

Even though Teacher 10 did not fully complete the SDPD, she did seem to realise the necessity for learner-centred teaching–learning. She also seemed to realise the importance of curriculum as praxis, rather than only curriculum as product or process, as will be elaborated later (see 5.2.4–5.2.5).

Although Teacher 12 did not complete SDPD 3, she set goals and according to those responded, "I really think it is possible, especially in the grade 9 context. …it will be achievable… Even though I didn't apply everything that I heard from you, it just focuses your mind again." Teacher 12 experienced personal challenges throughout the SDPD, but she still seemed to gain confidence regarding her own curriculum as praxis. This growth of Teacher 12 will be elaborated later (see 5.2.4–5.2.5). It was thus clear that Teacher 12 gained from the SDPD in order to be more aware of her own curriculum as praxis, than what she used to be.

Teacher 14 stated, "[i]t made me think outside the box. Rather than just focusing on delivering the content to the learners, I focused more on how to actually make it effective." Teacher 14 showed enormous growth, even though she already seemed contemporary during the pre-SDPD interview, because she acknowledged that the focus of her teaching–learning shifted to be more effective to the learners. Her growth was also visible in other ways, which will be elaborated later (see 5.2.4–5.2.5).

Keeping the experiences of the teachers, concerning the SDPD, in mind, I will now present the post-SDPD interview data, after which the discussion of this data and consolidation of all the data will follow.

5.2.4 Presentation of the post-self-directed professional development interview data

In Chapters 1 and 4 (see 1.2, 4.5.1; Table 4.2), it was conferred that the post-SDPD interviews addressed the research questions regarding what is needed in the 21st century in terms of SDL capabilities to enhance teachers' curriculum as praxis and how teachers can be supported regarding utilising SDL capabilities to enhance their curriculum as praxis. Relationship networks were drawn up in ATLAS.ti to demonstrate the relationships between the key conceptual ideas (curriculum, praxis and SDL) that emerged from the post-SDPD interview data (as indicated in Figure 5.3 below).
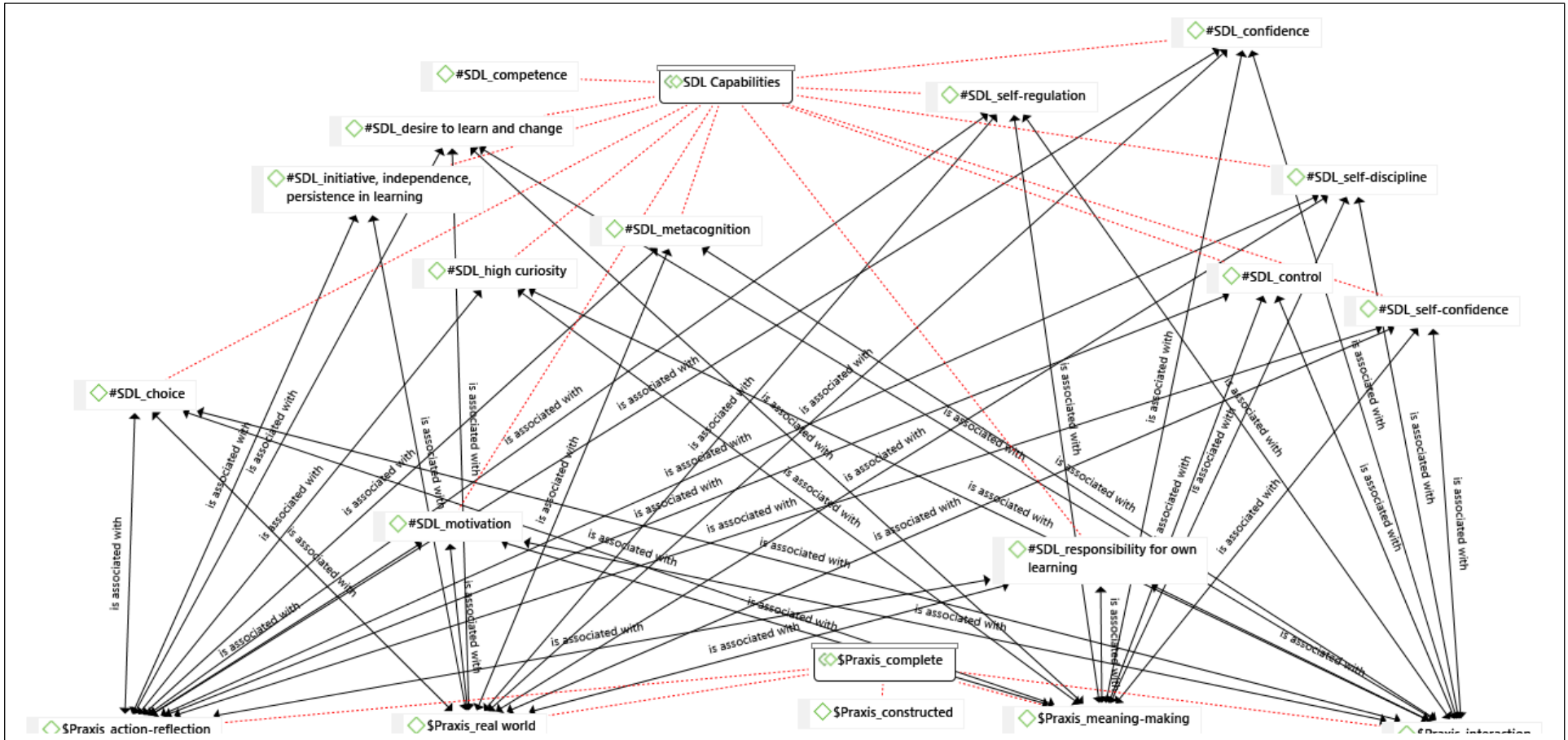
Figure 5.3: Relationships derived from the post-self-directed professional development interview data

Source: Author's own conceptualisation

The following over-arching themes arose from the analysis of the post-SDPD interview data and will subsequently be presented and discussed next.

5.2.4.1 Enhanced learner-centred curriculum as praxis

A discourse for enhanced learner-centred curriculum as praxis emerged quite strongly from the post-SDPD interview data. The relevant data is presented by starting with the SDL capabilities where enhanced learner-centredness featured, continuing to how these SDL capabilities related to the applicable teachers' curriculum as praxis. The applicable SDL capabilities were grouped together according to how these featured from the relevant teachers' post-SDPD interview data.

 i.   *Self-directed learning capability – desire to learn and change*

Teachers 8 and 14 emphasised a desire to learn and change and to be more learner-centred than what they perceived themselves to be. Teacher 8 explained, "truly speaking, giving them [learners] responsibilities. Even they are still yet to discover, because at times I even struggle to even plan properly in terms of learner-centredness." This desire to be more learner-centred was also clear in the curriculum implementation of Teachers 8 and 14. Teacher 14 explained, while presenting with self-confidence and confidence –

> [F]or topics that I know they [learners] have a prior knowledge of, it's not me who is teaching, but it's them who are teaching themselves … And when it comes to new topics, I try to do practical applications, like things that they normally work with.

Both teachers expressed action and reflection as well as interaction (elements of curriculum as praxis) regarding being more learner-centred. Teacher 8 (regarding action and reflection) explained, "I always reflect, after the lesson, I always reflect … So sometimes I get out of line, because of the structuring of the lesson, but I always reflect." Teacher 14 (regarding interaction) described,

> [W]hat I did previously, was just me delivering and waiting to see if the kids really understand, so now it's more of they have enough time to read on their sides and I also have enough time to interact with them, so while in class interacting with them I am able to understand if they understand or not.

Teacher 14 often referred to being oriented towards real-world contexts (element of curriculum as praxis) and learner-centred. Teacher 14 stated, "I learned that I don't only need to be textbook-oriented, but I need to be more practical about recent developments." In this sense, both Teachers 8 and 14 presented with the SDL capabilities of taking responsibility for their own learning, having self-discipline, being motivated and practicing self-regulation regarding improving their curriculum as praxis to be learner-centred.

ii. Self-directed learning capability – high curiosity

Teacher 8 was the only teacher who presented a high curiosity regarding being learner-centred. Teacher 8 stated, "[s]o now the curriculum is going to change, so I want to be studying something that is going to be in line with what is going to be in schools." As explained above, Teacher 8 presented curriculum implementation focused on being learner-centred, which also implicated Teacher 8's curriculum as praxis. The SDL capabilities of taking responsibility for her own learning, with self-discipline, while being motivated and self-regulated, and having control of her own learning, also featured with Teacher 8.

iii. Self-directed learning capability – initiative, independence and persistence in learning

Teachers 4 and 14 presented with taking initiative, independence and persistence in learning regarding being more learner-centred than what they used to be. Teacher 14 explained how she would continually search for appropriate resources,

> So, for me, I felt like I'm not effective, so I went to YouTube and I got videos. The first videos I got was cartoons just singing about planets […] then after that I went a bit more scientific … So, for the first videos it was more introduction … so then I went, and I showed a professional video where it actually showed the galaxy as a whole, and they [learners] got to see how Mercury looks, how Jupiter looks, how the constellations look.

Here, Teacher 14 presented with self-discipline and self-regulation as well. Both Teachers 4 and 14 showed curriculum implementation that is focused on learner-centredness. Teacher 4 explained, "sometimes, something that works for one class will not work for another class… You should always think and think through and work out another plan for that class." Here, Teacher 4 also presented with the SDL capabilities of taking responsibility for her own learning, while also being motivated. This focus on being learner-centred featured in these teachers' curriculum as praxis. Both teachers expressed action and reflection and being oriented towards real-world contexts (elements of curriculum as praxis). Teacher 14 explained (regarding action and reflection), "rather than just focusing on delivering the content to the learners, I focused more on how to actually make it effective, not just going to class and just teach this topic". Here, Teacher 14 again presented with self-confidence, confidence and self-regulation. Teacher 4 (regarding real-world contexts) sustained, "I always listen to the news, and if I hear something like a meteor that fell, then I will tell them [learners]. So, I always try to bring it back to them, what happens in the world." Again, both Teachers 4 and 14 presented with taking responsibility for their own learning and being motivated.

iv.   Self-directed learning capability – choice

From the post-SDPD interview data, it was clear that Teachers 4, 8, 14, as well as Teacher 10, presented with having choices regarding improving their curriculum as praxis to be more learner-centred than what it used to be. Teacher 8 explained when she did electric circuits with the learners, "all of them [learners] were eager to just collect the different parts and to do everything, so I gave them different roles." Teacher 4 elaborated, "every now and then, I buy new books with new worksheets and new stuff in". Teacher 10 clarified that, "previously, when I spoke to you, I only used the textbook and now I would definitely try to get other resources, more applicable ones as well". Teacher 10 also showed self-regulation, self-confidence, and confidence in utilising resources. As explained and from the data analysis, Teachers 4, 8, 10 and 14 seemed to practice action and reflection, while being real-world-conscious and in interaction with other people (elements of curriculum as praxis).

Another prominent discourse that emerged from the post-SDPD interview data was one of personal aptitudes, as will be discussed next.

5.2.4.2 Personal aptitudes

The personal aptitudes of the seven teachers who participated in the post-SDPD interviews related to the body of scholarship (curriculum, praxis and SDL) of my study. These personal aptitudes stemmed from the SDL capabilities; therefore, the following discussion will be started with the relevant SDL capabilities and then linked to teachers' curriculum as praxis.

i.   *Self-directed learning capability – desire to learn and change*

Teachers 4, 5, and 9 explained that they had a desire to learn and change regarding newer strategies for curriculum implementation. Teacher 5 continued, "training, because sometimes you'll get ideas, but then the implementation would be a bit difficult. So, if there will be training on how you should use this, then it would be better." This desire to learn and change regarding curriculum implementation strategies, also featured in the curriculum implementation of Teachers 4 and 9. Teachers 4 and 9 both seemed to be traditional to some extent, regarding their curriculum implementation, because in terms of the learners' responsibilities in class, Teacher 9 explained, "I actually expect very little of them [learners]. They come to my class to get a lot of information or stuff that you give them." The background of this desire to learn and change regarding curriculum implementation strategies, also featured in the curriculum as praxis of Teachers 4, 5 and 9. Regarding action and reflection, all three teachers voiced that they reflected more and differently from what they used to before the SDPD. Teacher 9 elaborated:

> I tried to keep up with my goal of doing informal assessments. So, that definitely made a
> difference and I saw it in my June examination marking, specifically two subjects, where I
> thought this is quite a high average for the learners…

On the topic of interaction, Teacher 9 referred to interaction with other educational organisations or being part of forums, and Teacher 4 referred to subject advisors. Teacher 4 explained that it is really important to stay up to date and informed as a teacher, but that "our subject advisors really help us a lot." Both these teachers thus identified possible resources to guide them through interaction.

ii. Self-directed learning capability – control

As far as personal aptitudes were concerned, it was interesting that Teachers 4, 5 and 9 were the only teachers who experienced control, while they also presented with a desire to learn and change. Teacher 4 explained, "and we have a certain syllabus according to which we work. Initially, we did a lot of practical work, but now everything is becoming more paper-based." As explained in this section (see 5.2.4.2*i*), Teachers 4, 5 and 9 seemed to practice action and reflection and interaction only with other colleagues and not within their own classrooms with the learners.

From the data analysis of the post-SDPD interviews, it was clear that external influences still featured at some teachers, which will subsequently be discussed.

5.2.4.3 External influences

Teachers 4, 5, 8, 9, 12 and 14 referred to external influences that seemed to have a positive or negative effect on them and will be discussed in more detail in the following paragraphs.

i. Departmental influences

When discussing external influences, frustration was voiced about the DBE expectations, because Teacher 8 stated in terms of the ATP "there can be human error within it". Teacher 14 indicated that some textbooks were outdated. Speaking about planets and constellations, Teacher 14 elucidated, "this one child came to me and asked me something that was totally not in the text book and I was not aware of it, because it was something that was recently discovered and not yet in their textbooks". For both Teachers 8 and 14, these external influences seemed to navigate them positively towards utilising their SDL capabilities to become more learner-centred than what they used to be, as explained above (see 5.2.4.1). SDL capabilities also featured in these teachers' personal aptitudes, as Teacher 8 explained having choices in terms of her own professional development. Teacher 14's personal aptitudes related to taking initiative, independence and persistence in learning, having self-confidence and self-discipline, metacognition, choice and confidence, while explaining:

I think, being very technology-orientated, being familiar with the internet really plays an important role, because … I feel children learn through imagination, they learn through pictures, so if they see something, they tend to understand it much better.

In a negative sense, Teacher 12 sustained, quite extensively, that she did not feel supported by the DBE. Teacher 12 elaborated,

At this stage, I feel I would much rather and much easier and with confidence learn from colleagues, as from the department. … especially regarding Grade 9, I experience … no accessibility from the department. I would much rather phone other teachers from other schools to get assistance from them.

This negative, external influence seemed to hinder Teacher 12's ability to utilise her SDL capabilities, as she revealed few of the SDL capabilities during the post-SDPD interview, because she stated that she would "with confidence learn from colleagues". Here Teacher 12 also showed confidence and self-confidence. Contrary to Teachers 4, 5 and 9, Teacher 12 still showed most of the elements of curriculum as praxis. Relating to action and reflection and bringing real-world contexts into the classroom (elements of curriculum as praxis) to be more learner-centred than before, Teacher 12 explained, "we used to get long comprehensions, but nowadays it is advertisements and cartoons and visual literacy, so I really think one should change your presentation to be more visual". Teacher 12 also seemed to interact and make meaning (elements of curriculum as praxis) with colleagues, also through educational forums,

I enjoy the SOS assistance very much and I use it. We also have an Afrikaans teachers' group … where people upload stuff …, but basically the discussions of it, … someone would ask something simple, … but it is very nice to get other teachers' inputs and what they do.

ii. Facilities

In a negative sense, Teachers 4, 9 and 14 mentioned challenges regarding having inadequate facilities. Teacher 14 continued, "I had videos and I wanted to show it, but one of the challenges I had was that it's not working, the projector." External influences also featured regarding these teachers' curriculum as praxis. Teachers 9 and 14 raised concerns about limited technology to support real-world implementations of their curriculum as praxis. Teacher 9 explained, "technology, to have a fully equipped class with the necessary technology and

internet access, and you should have a projector". In terms of external influences on real-world implementations, Teacher 4 stated that specified workshops, where other teachers presented a strategy that worked for them, would assist her, "it should not be about all the things we have always learnt, but really something that a teacher does, that works. That will help."

5.2.5   Discussion of the post-self-directed professional development interview data

From the analyses and presentation of the post-SDPD semi-structured individual face-to-face interview data, a few points for discussion emerged.

Firstly, it seemed that the teachers (8, 14) who related to most of the SDL capabilities (desire to learn and change; responsibility for own learning; self-confidence; self-discipline; motivation; self-regulation; confidence; high curiosity; initiative, independence, persistence in learning; choice; metacognition) also utilised most of the elements of curriculum as praxis (action and reflection, interaction, real-world contexts, meaning-making of knowledge) to be more learner-centred than what they used to be. These teachers (8, 14) appeared to have choices to enhance their own curriculum as praxis, and they seemed to learn from and navigate themselves towards enhanced curriculum as praxis, even when external influences exist.

Secondly, Teachers 5 and 9 appeared to experience control in a negative sense, because they still expressed a desire to learn and change concerning being learner-centred, while being under control of the DBE or themselves. These teachers did not yet seem to realise the extent to which they could exercise their own choices concerning their curriculum as praxis, although they seemed to realise that some choices exist to be learner-centred in their curriculum as praxis. Teacher 9 seemed to be limited and restricted by some external influences (limited technology) as well. Both teachers still mainly practiced action and reflection, real-world contexts, and interaction, as elements of curriculum as praxis.

Thirdly, although Teacher 4 only showed some SDL capabilities (initiative, independence and persistence in learning; responsibility for own learning; motivation; desire to learn and change; choice), she still utilised most elements of curriculum as praxis (action and reflection, real-world contexts, interaction). Teacher 4 acknowledged having choices vis-à-vis curriculum as praxis, but also that some of these choices, to be learner-centred, were limited by control from the DBE expectations.

Fourthly, Teachers 10 and 12 only showed few of the SDL capabilities. Teacher 10 revealed self-regulation, self-confidence, confidence and choice in using different resources, and Teacher 12 only showed confidence, self-confidence and choice to learn from colleagues. Both these teachers however seemed to utilise many of the elements of curriculum as praxis (action and reflection, real-world contexts, interaction). Teacher 12 also seemed to make meaning with colleagues (see 5.2.4.3*i*). Neither of these teachers completed the SDPD fully, but both of them seemed to realise that there are available choices to help them to be more learner-centred in their teaching–learning than what they used to be.

From the different sections of discussions (see 5.2.2, 5.2.3, 5.2.5), the data will now be consolidated, which will also be done in reference to Table 5.2. Table 5.2 was included to elucidate each Teacher's position throughout the empirical research.

5.3 CONSOLIDATION OF THE DATA

In relation to all the data that was presented and discussed in this chapter, the consolidation will now follow. To support the consolidation of all the data, Table 5.2 was included, to summarise each individual teacher's position of their curriculum as praxis from the pre-SDPD to the post-SDPD interviews. Table 5.2 also demonstrates each teacher's position regarding their SDL capabilities and how these related to the teachers' curriculum as praxis.

During the SDPD, parameters were provided to the participating teachers in relation to the elements of curriculum as praxis (see Table 4.3; Table 5.1). Teachers were asked to reflect about the learner-centredness of their curriculum as praxis, the inclusion of real-life problems (real-world contexts) in their curriculum as praxis, their adaptability vis-à-vis their curriculum as praxis, possible opportunities for deeper understanding throughout their curriculum as praxis, and reflection throughout their curriculum as praxis (see Table 4.3).

On the subject of these parameters, it was apparent that enhanced learner-centred curriculum as praxis (see 5.2.4.1), personal aptitudes (see 5.2.4.2) and external influences (see 5.2.4.3) emerged as prominent themes of the post-SDPD interview data. It was interesting to note, though, that control and choice simultaneously came to the fore from the data of my research, as well as was extensively discussed from the body of scholarly work (see 3.4).

As was discussed in section 5.2.5, and as summarised in Table 5.2, Teachers 8 and 14 who presented with most of the SDL capabilities during the post-SDPD interviews, also utilised most of the elements of curriculum as praxis, while realising the control they can have and the choices that were available to them at the time to improve their own curriculum as praxis. These two teachers did not seem limited, restricted or passive to utilise SDL capabilities during the pre-SDPD interviews. They also appeared to exercise many of the elements of curriculum as praxis and therefore, they seemed to have a contemporary stance regarding curriculum in the pre-SDPD interviews already. Even though Teachers 8 and 14 were already more learner-centred and contemporary during the pre-SDPD interviews than the other teachers, the SDPD still seemed to improve their curriculum as praxis. Neither of these teachers (8, 14) initially seemed to have choices about their own teaching–learning, whereas, during the post-SDPD interviews, both of them seemed to have choices to adapt the prescribed curriculum and their curriculum as praxis to focus on learner-centredness. Teacher 8 also initially seemed to only realise how limited her own control over her curriculum as praxis is, while at the post-SDPD, she seemed to have gained own control of her curriculum as praxis. Although Teacher 14 initially seemed to have control over her curriculum as praxis, this control seemed to enhance because of the choices that became more relevant to her than before.

Teachers 5 and 9, who seemed to present only a few of the SDL capabilities during the post-SDPD interviews, also seemed to be limited in their curriculum as praxis, while still being under control of the DBE expectations regarding their own curriculum as praxis. During the pre-SDPD interviews, Teacher 9 already presented with a lack of SDL capabilities and she also appeared hesitant to take control of her curriculum as praxis. Teacher 5, on the other hand, in the pre-SDPD, appeared frustrated by the control exercised by the DBE expectations and thus took some control of her own curriculum as praxis, even though she also only presented a few SDL capabilities. Even if the control from the DBE were negatively experienced by both of these teachers throughout the SDPD, both teachers still experienced the SDPD as positive. During the post-SDPD interviews, both teachers seemed to start to realise the choices they have available to adapt their own curriculum as praxis. It did seem though, that both teachers might need more time to develop their realisation of these available choices.

Teachers 4, 10 and 12, who presented some of the SDL capabilities during the post-SDPD interviews, associated with many of the elements of curriculum as praxis. During the pre-SDPD interviews, Teacher 4 and 10 presented with a lack of SDL capabilities and they seemed hesitant to take control of their curriculum as praxis. Therefore, they both seemed traditional

in their curriculum stance. Both Teachers 4 and 10 did, however, experience the SDPD as positive. Fortunately, during the post-SDPD interviews, both Teacher 4 and 10 seemed to have enhanced in their SDL capabilities and their elements of curriculum as praxis. Consequently, both Teachers 4 and 10 seemed to realise that choices regarding their own curriculum as praxis exist, even if they still experienced control regarding DBE expectations. During the pre-SDPD interviews, Teacher 12 seemed frustrated by the control exercised by the DBE expectations and therefore took control and responsibility of her own curriculum as praxis. She also seemed to realise the available choices for her own curriculum as praxis, even though she presented with less SDL capabilities than in the pre-SDPD interview. Teacher 12 did, however, experience personal challenges during the SDPD.

Teachers 4, 9 and 10 initially, during the pre-SDPD interviews, seemed to have a traditional stance on curriculum. Nonetheless, during the post-SDPD interviews, Teachers 4 and 10 appeared to utilise several of the elements of curriculum as praxis, which could indicate that their curriculum stance shifted to be more contemporary. Teachers 5, 8, 12 and 14 were contemporary in their curriculum stance since the pre-SDPD interviews. Nevertheless, Teachers 8, 12 and 14 seemed to be capable of exercising more control over their own learning than what they were able to do during the pre-SDPD interviews.

Table 5.2: Teachers' positions throughout the empirical process

Teacher	Pre-SDPD	Indication of each teacher's extent of growth	Post-SDPD
4	SDL capabilities: no personality traits of SDL; superficial choices. Elements of curriculum as praxis: actions and reflection; real-world contexts; interaction. Under control of the DBE, with limited choices.	Through the SDPD, Teacher 4 showed immense growth in utilising SDL capabilities and from initially being quite traditional regarding her curriculum as praxis to becoming quite contemporary in her curriculum as praxis.	SDL capabilities: initiative, independence, persistence in learning; responsibility for own learning; motivation; desire to learn and change; choices. Elements of curriculum as praxis: actions and reflection; real-world contexts; interaction. Realised more choices, under some control.
5	SDL capabilities: desire to learn and change; own control. Elements of curriculum as praxis: action and reflection; real-world contexts; interaction. Frustrated by DBE control, thus took own control.	Since the pre-SDPD interview, Teacher 5 seemed to have control over some elements of her curriculum as praxis, but from the post-SDPD interview, it seemed that Teacher 5 were not able to exercise the same control over these elements of curriculum as praxis. It did seem though that she started to realise the choices available to her to change her curriculum as praxis.	SDL capabilities: desire to learn and change; choices. Elements of curriculum as praxis: action and reflection; real-world contexts; interaction. Under control from DBE, but realised choices.
8	SDL capabilities: desire to learn and change; high curiosity; initiative, independence and persistence in learning;	Teacher 8 seemed to be contemporary in her curriculum as praxis throughout the SDPD, but she initially seemed to only exercise superficial choices with only some control in her curriculum as praxis.	SDL capabilities: desire to learn and change; responsibility for own learning; self-discipline; motivation; self-regulation; high curiosity; choices; control.

	taking responsibility for own learning; motivation; superficial choices. Elements of curriculum as praxis: action and reflection; interaction; real-world contexts; construction of knowledge. Superficial choices with limited own control.	Her awareness of choices and own control seemed to enhance during the SDPD.	Elements of curriculum as praxis: action and reflection; interaction; real-world contexts; meaning-making of knowledge. Choices with own control.
9	SDL capabilities: desire to learn and change. Elements of curriculum as praxis: interaction; real-world contexts. Under control of DBE, with superficial choices.	Although Teacher 9 seemed quite traditional regarding her curriculum as praxis throughout the SDPD, she did seem to develop a realisation of choices that are available to her to act and reflect differently.	SDL capabilities: desire to learn and change; choices. Elements of curriculum as praxis: action and reflection; interaction; real-world contexts. Under control of DBE, but realised choices.
10	SDL capabilities: desire to learn and change. Elements of curriculum as praxis: interaction. Under control of DBE, with superficial choices.	Even though Teacher 10 did not fully complete the SDPD, she seemed to enhance in her SDL capabilities, which also enhanced her curriculum as praxis. Through realising the available choices to enhance her curriculum as praxis, Teacher 10 seemed to gain more control over her own curriculum s praxis.	SDL capabilities: self-regulation; self-confidence; confidence; choices. Elements of curriculum as praxis: action and reflection; real-world contexts; interaction. Choices, under some control.
12	SDL capabilities: desire to learn and change; own control.	Throughout the SDPD, Teacher 12 seemed contemporary in her curriculum as praxis, because she was initially frustrated by the DBE control and	SDL capabilities: confidence; self-confidence; choices.

	Elements of curriculum as praxis: action and reflection; real-world contexts; interaction; construction of knowledge. Frustrated by DBE control, took own control.	later seemed to realise that she has choices to better her own curriculum as praxis.	Elements of curriculum as praxis: action and reflection; real-world contexts; interaction; meaning-making. Choices, under some control.
14	SDL capabilities: desire to learn and change; own control. Elements of curriculum as praxis: interaction; construction of knowledge. Own control, with superficial choices.	Teacher 14 seemed to enhance her SDL capabilities greatly during the SDPD, which also seemed to improve her curriculum as praxis. Although she seemed to have own control over her curriculum as praxis, she seemed to gain in her realisation of the choices she has to enhance her own curriculum as praxis.	SDL capabilities: desire to learn and change; self-confidence; confidence; responsibility for own leaning; self-discipline; motivation; self-regulation; initiative, independence, persistence in learning; metacognition; choices; control. Elements of curriculum as praxis: action and reflection; interaction; real-world contexts. Choices with own control.

The conclusion of this chapter will now follow, after which Chapter 6 will conclude my whole thesis.

5.4 CONCLUSION

Even though all the teachers who participated throughout the SDPD seemed to have benefitted from the SDPD, the extent to which they developed, was fairly personalised. All the teachers' SDL capabilities seems to improve from the pre-SDPD to the post-SDPD interviews, except for Teacher 5. All the teachers, except for Teacher 5, also enhanced their elements of curriculum as praxis. The defining differences stemmed from the teachers' experiences relating to control or choices and whether they experienced to be controlled by the DBE expectations (having limited choices) or if they could exercise control (having choices) over their own curriculum as praxis and their own learning. All the teachers' views about their available choices seemed to improve and Teacher 4, 8, 10 and 14 seemed to gain control over their own curriculum as praxis.

Furthermore, in Chapter 6, the consolidation of the data will be discussed and synthesised with the literature from the body of scholarly work. The research questions will be answered and the conclusions and recommendations will also be addressed.

CHAPTER 6
CONCLUSIONS AND RECOMMENDATIONS

6.1   INTRODUCTION

My study was underpinned by the main research question and aim, as well as the secondary research questions and aims. This chapter was thus structured to address these research questions and aims. The main research question asked, how can a self-directed learning (SDL) capability approach enhance teachers' curriculum as praxis? Therefore, this chapter will provide a brief overview of the problem statement, the research questions will be addressed, after which shortcomings of my study will be elucidated and recommendations for further research will be provided.

6.2   BRIEF OVERVIEW OF THE PROBLEM STATEMENT

The rapid changes of our current times are not new. Ornstein and Hunkins (2018:262) define these fast changes. They elaborate that knowledge bases, demographics, human diversities, cultural pluralism and education (curricula and its implementations) are affected (Ornstein & Hunkins, 2018:262). An educational implication of the vastly changing world is that teachers need specialised and general knowledge to be able to think autonomously and creatively (Esteve, 2000:197; Janks, 2014:10; Yek & Penney, 2006:1; see 1.1). Therefore, teachers need to develop themselves continuously (Kay, 2010) by also being learners in the 21st century, which is quite different from the 20th century, also regarding education (Bernhardt, 2015; see 1.1, 1.4). However, the history of curriculum development in South Africa has illuminated that teachers have not been supported to become learners themselves within the 21st century, as was confirmed by the Action Plan to 2014: Towards the realisation of Schooling 2025 (Department of Basic Education, 2011b; see 1.1). The Department of Basic Education (DBE) (2011b; also see 1.1) further also explains that teachers in South Africa have not been supported to master new implementation skills. Concurrently, the Curriculum and Assessment Policy Statement (CAPS) has been criticised for being too prescriptive, because learners', and teachers', creativity, imagination and innovation is dampened through such prescriptions (Janks, 2014; see 1.1). Therefore, it was argued that teachers should take ownership and advance in their professional authority of their own curriculum as praxis (see 1.1, 1.4, 2.5.4, 3.2.3). The elements of curriculum as praxis are, as will also be elaborated in section 6.3.1.2, interaction between action and reflection, while taking place

in real-world contexts, in interaction with other people, where knowledge is constructed, and where meaning-making of knowledge occurs.

Furthermore, it was discussed (see 1.4.3) that because the capability approach can assess individuals' actual (functioning) and potential (capability) states of being (Kuklys & Robeyns, 2010), it could help to define what teachers are actually able to do and realise in terms of their own curriculum as praxis. Subsequently, in my study, I argued that the capability approach could assist teachers in adapting to the 21st century, according to their own capabilities and functionings to enhance their own curriculum as praxis (see 1.4.3). The capability approach, together with SDL, could enhance teachers' curriculum as praxis. Subsequently, my study aimed at exploring how teachers can be supported to enhance their own curriculum as praxis, through an SDL capability approach. Keeping in mind that teachers should gain professional authority of their own curriculum as praxis, the research questions will now be addressed.

6.3   ADDRESSING THE RESEARCH QUESTIONS

With the purpose of specifically answering the main research question, four secondary research questions were asked. In this section, these four secondary research questions will be addressed by drawing from the body of scholarly work as well as the empirical study that was conducted.

6.3.1   Secondary research question one: what is the current position of teachers' curriculum as praxis in schools in North West, a province in South Africa?

The answers pertaining to what curriculum and curriculum as praxis entail, are discussed in this section in order to answer secondary research question one.

6.3.1.1 What does curriculum entail?

Figure 6.1 is a condensed summary of Figures 2.3, 2.4, 2.5 and 2.6, and it is included to give an overview of progresses in the major, educational and curriculum philosophies and how these influenced curriculum growths, specifically designs, developments and implementations of curricula.

In reference to Figure 6.1, the philosophical underpinnings of curriculum stemmed from the major philosophies and the educational philosophies. Chapter 2 was partly dedicated to the philosophical underpinning of curriculum (see 2.3), where it was concluded that the traditional major philosophies of idealism and realism (see 2.3.1.1, 2.3.1.2) influenced the educational philosophies of perennialism and essentialism (see 2.3.2.1, 2.3.2.2), which in turn brought forth the curriculum philosophies of scholar academic and social efficiency (see 2.3.3.1, 2.3.3.2). Traditionally, teachers were required to teach only the universal truth of the time, which was encompassed in the prescribed subject matter of the curriculum, which was taught through curriculum transmission (see Table 2.2). Consequently, teachers had a narrow view of the curriculum, because the prescribed content could not be changed or adapted and learners could not actively participate in teaching–learning (see 2.4).

Contemporary influences on the curriculum philosophies of learner-centredness and social reconstruction (see 2.3.3.3, 2.3.3.4), stemmed from the major philosophies of pragmatism, existentialism, postmodernism (see 2.3.1.3, 2.3.1.4, 2.3.1.5) and the educational philosophies of progressivism, reconstructionism and critical theory (see 2.3.2.3, 2.3.2.4, 2.3.2.5). Contemporary expectations of teachers are to guide and engage learners actively, where the curriculum content is flexible and problem-based in order for curriculum development and curriculum making to occur (see Table 2.3). Therefore, teachers developed a broad view of the curriculum and they acknowledged that external factors, such as personal preferences and needs of learners, could influence teaching–learning more than the prescribed content (see 2.4).
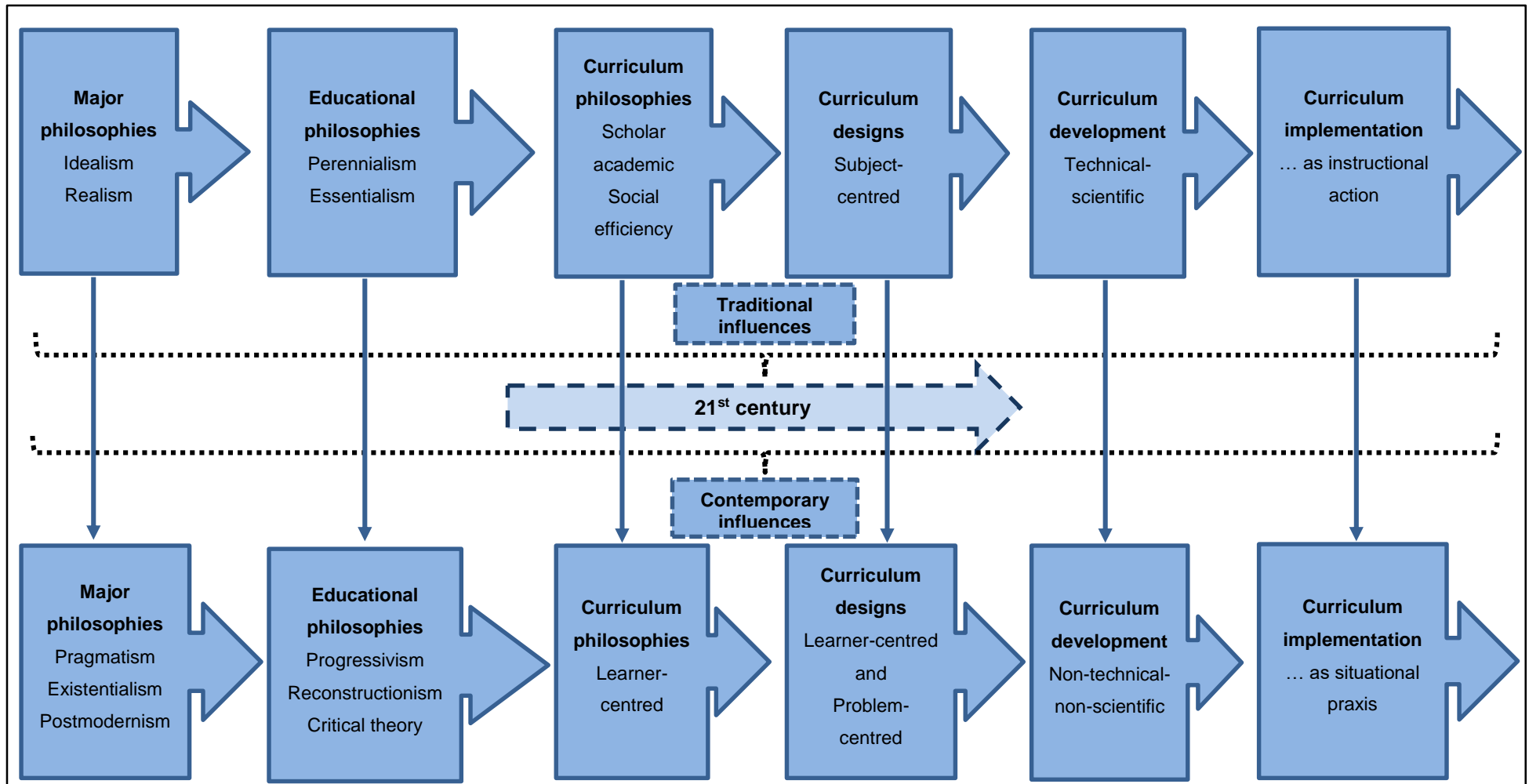
Figure 6.1: Overview of philosophical developments pertaining to curriculum philosophies and domains
Author's own conceptualisation

Continuing with the discussion on curriculum (see Figure 6.1), the different domains of curriculum designs, developments and implementations was then included (see 2.5). Although curriculum philosophies had traditional and contemporary influences that also influenced the curriculum domains, it was concluded that the following are crucial for education in the 21st century:

- learner-centred designs in schooling in the progressive tradition (see 2.5.1.2; Figure 2.4);
- problem-centred designs in schooling in the radical tradition (see 2.5.1.3; Figure 2.4);
- non-technical–non-scientific, practical and critical approaches to curriculum development (see 2.5.2.2; Figure 2.5); and
- curriculum implementation as situational praxis (see 2.5.3.2; Table 2.1; Figure 2.6).

The learner-centred designs in the progressive tradition started to move away from traditional thoughts on education. Learners' interests became more prominent as well as their own learning experiences and needs (Dewey, 1916; Ornstein & Hunkins, 2018). This is also prominent in 21st-century education. Similarly, problem-centred designs in the radical tradition focus on learners' real-life problems (Ornstein & Hunkins, 2018). Learners' learning needs, concerns and abilities inform the curriculum, while life situations, social problems, living circumstances and reconstructing society are also addressed (Ornstein & Hunkins, 2018), especially in the 21st century.

Concurrently to the contemporary curriculum designs, the non-technical–non-scientific approach (including practical and critical approaches) to curriculum development also occurred. The curriculum is adaptable so teachers can decide what to add, omit or skip over (Shawer, 2010). The teacher thus plans the curriculum around context-specific opportunities for learning (Frame, 2003), as is needed in 21st-century education.

At the same time as the learner-centred designs and the non-technical–non-scientific approach, curriculum implementation evolved from instrumental action to situational praxis. Aoki (2005:116) clarifies that human experiences underscores curriculum implementation as situational praxis; hence, the teacher and learners should "co-dwell" in the presence of the curriculum. Ornstein and Hunkins (2018:257) confirmed that teachers with a technical view will plan their curriculum implementation to the finest details and teachers with a non-technical view will realise the fluid and dynamic nature of curriculum implementation. These narrow (traditional) and broad (contemporary) views of teachers are crucial for how they would theorise about the curriculum domains and curriculum as praxis (see 2.4). Therefore, teachers' narrow or broad views would

also indicate their position towards their own curriculum as praxis, as was asked by secondary research question one.

Before answering secondary research question one, it is also imperative to review what curriculum as praxis entail, as will now be continued.

6.3.1.2 What does curriculum as praxis entail?

As part of the background to the problem statement (see 1.1) it was highlighted that teachers should constantly adapt (Steyn, 2013) and improve (DBE, 2011a) towards curriculum as praxis in the 21st century. Aoki (2005, also see 2.5.3, 2.5.3.2; Figure 2.6) strongly advocated the need for curriculum implementation as situational praxis, because curriculum implementation as instrumental action (traditionally underpinned by perennialism and essentialism), dominated in the past. With the curriculum implementation as instrumental action the teacher was required to transmit only the prescribed curriculum, while in situational praxis, the teacher should transform the curriculum within the situation (Aoki, 2005). I therefore concluded that curriculum implementation, as situational praxis, would best support education in the 21st century (see 2.5.3.2; Table 2.1; Figure 2.6).

Curriculum as praxis relates to the emancipatory interest, which refers to a state of autonomy and not dependency, as is the case within curriculum as product and process (Grundy, 1987; Habermas, 1972). Autonomy and responsibility, with self-reflection, are thus pivotal in emancipation and for curriculum as praxis to be successful (Grundy, 1987). Furthermore, Grundy (1987:114–116; also see 1.1, 2.6.2; Tables 2.5 & 2.6) describes the elements of curriculum as praxis, which are:

- action and reflection, through which the curriculum develops, rather than being a set of plans to implement;
- praxis takes place in real-world contexts, which includes implementation in real situations with real learners;
- praxis operates in the world of interaction, socially and culturally, meaning the curriculum should be a social act, also between the teacher and the learners;
- the world of praxis is constructed, knowledge is socially constructed, and learners become active participants in constructing their own knowledge; and
- praxis assumes a process of meaning-making, meaning that critical orientations to knowledge become imperative.

Keeping the theoretical framework of my study in mind, secondary research question one will now be answered, also drawing from the analysed data of my research.

6.3.1.3 Answering secondary research question one

Although the CAPS does not advocate the transmission of only one universal truth, many of the participating teachers initially (during the pre-self-directed professional development (SDPD) interviews) seemed traditional in transmitting the prescribed content to learners (curriculum implementation as instrumental action), without proper learner engagement (see 5.2.2). None of the teachers referred, directly or indirectly, to utilising meaning-making (as an element of curriculum as praxis) (see 5.2.2). Most of the initially participating teachers also only associated with the first three elements of curriculum as praxis, being action and reflection, real-world contexts, and interaction with other people, but only superficially (see 5.2.2), which also referred to their narrow and traditional stance on curriculum. Most of these traditional teachers also did not continue to complete the SDPD. Although some of these teachers withdrew because of personal challenges, I deduced from the data that many of these teachers did not see any reason for enhancing their curriculum as praxis, because they possibly experienced control from the DBE to structure their teaching, but also to limit their curriculum as praxis (see 5.2.2). Many of these teachers also did not seem to be aware of having choices to adapt their curriculum as praxis, because the choices they discussed, were superficial and only DBE oriented (see 5.2.2). They thus experienced the prescribed content as 'inflexible'; therefore, learners were not actively involved in teaching–learning and their curriculum as praxis was not fully utilised.

Keeping the theoretical background of my study in mind, it was clear that only some of the initially participating teachers had a contemporary and broad stance on curriculum, because they referred to most of the elements of curriculum as praxis, being action and reflection, real-world contexts, interaction, and construction of knowledge (see 5.2.2). Some of these teachers also seemed to take control of some elements of their own curriculum as praxis, and these teachers included and engaged learners in teaching–learning. They also seemed to realise possible flexibility in the CAPS (curriculum implementation as situational praxis), which guided them to be more learner-centred, as is expected in the 21st century.

Although learner-centred and problem-centred curriculum designs seemed to be familiar to most of the participating teachers, the teachers did not seem to experience non-technical–non-scientific curriculum development, because the CAPS did not seem adaptable to teachers to add, omit or skip over the prescribed content. Planning around context-specific opportunities also did not seem possible to the participating teachers, because some of them explained how they felt restricted by contextual factors. Furthermore, some of the participating teachers did seem to realise the necessity for a fluid and dynamic curriculum, but many of them still seemed limited by the CAPS, due to the expectations that come from the DBE via the CAPS. Thus, while only considering the teachers who completed the empirical research, the initial position of three teachers was traditional, and four teachers tended to be contemporary, as was deduced from the theoretical underpinning of the theoretical framework of my study.

Addressing and answering secondary research question one should be understood in conjunction with the other secondary research questions. Thus, secondary research question two will now be addressed and answered.

6.3.2 Secondary research question two: what is the current position of teachers in North West with regard to their self-directed learning capabilities?

In order to address and answer secondary research question two, I will refer to what SDL entail, what capabilities constitute, and also what SDL capabilities consist of.

6.3.2.1 What does self-directed learning entail?

The prominent definition of SDL that formed part of my study's theoretical framework, was that of Knowles (1975:18), where he describes SDL as a process of individuals (teachers in my research):

- taking initiative (with or without assistance from other individuals),
- diagnosing their learning needs,
- formulating their own learning goals,
- identifying resources (human or material),
- choosing and implementing applicable strategies for learning, and
- evaluating the outcomes of their learning.

The definition of SDL, as explained by Knowles (1975), was substantiated by that of Louws *et al.* (2017) who added that teachers' SDL should accommodate them to formulate their own learning needs from where they can then direct their own learning. Therefore, in reference to Hursen (2016) and Guglielmino (2013), I argued that teachers need the same skills and personality traits as the learners they are teaching. These personality traits are to,

- demonstrate initiative, independence and persistence in learning;
- accept responsibility for own learning;
- have self-discipline;
- have a high degree of curiosity;
- have a strong desire to learn or change; and
- have self-confidence (Guglielmino, 2013).

Furthermore, Long (2000) elucidates SDL in terms of the dimensions of SDL. The primary dimensions are motivation, metacognition and self-regulation and the secondary dimensions are choice, competence, control and confidence (Long, 2000). The "energy, drive or desire" that inspires someone to reach a goal, is referred to as being motivated (Long, 2000:16–20). The second primary dimension, metacognition, refers to "thinking about thinking" and self-regulation refers to having control over your thinking (Long, 2000:16–20). Drawing from Long (2000), choice, a secondary dimension in my study, refers to the choices that are available to teachers within their learning situation and curriculum, while control refers to teachers' ability to control their own curriculum as praxis. Competence indicates a feeling of success and confidence indicates teachers' expectation to reach success or to rather stagnate (Long, 2000:21–22) in their curriculum as praxis.

During the SDPD, teachers were guided to work through the process of SDL, as defined by Knowles (1975). From the SDL body of scholarship, together with the empirical research, it became evident that the personality traits of a self-directed learner (of Guglielmino, 2013) and the dimensions of SDL, as defined by Long (2000), could constitute the participating teachers' SDL capabilities. Consequently, what capabilities constitute, will be elaborated next.

6.3.2.2 What do capabilities constitute?

The capability approach considers what people (teachers) are actually able to do and be and which choices (regarding teachers' curriculum as praxis) they have available that are not controlled by other people (DBE expectations) (see 3.4). Sen (2000) argues that the focus should

be on the actual living that people achieve and the freedom that people have to achieve the types of lives that they want to lead, rather than only focusing on the means of a good life. Wells (2015) elaborates that the capability approach focuses on the achievable quality of life that people (or teachers) can achieve. Therefore, functionings refers to what people (or teachers) actually achieve, while capabilities indicates the available choices to people (and teachers), as substantiated by Kuklys & Robeyns (2010) and Nussbaum (2011). These choices could include teaching–learning strategies, utilisation of resources, and even classroom management.

Hence, an SDL capability approach was outlined in my study to possibly enhance teachers' curriculum as praxis (see 3.5), because such an approach could help teachers to realise the opportunities that are available to choose from (capabilities), to become the teachers they want to be (functionings), as was also clarified by Robeyns (2005). These opportunities could include professional development, self-development and even development of colleagues. What this SDL capability approach further consisted of in my research is distinguished next.

6.3.2.3 What does self-directed learning capabilities consist of?

The personality traits of self-directed learners and the dimensions of SDL emanated (see 3.2.1) as necessities for teachers of the 21st century (see 3.2.2–3.2.3) to be able to develop the necessary skills of the 21st century further (see 1.4.1; Table 2.4). The capability approach as theoretical framework (see 3.4) also clarified that because teachers can be overwhelmed by too many choices relating to the challenges they experience in their teaching–learning, such as limited resources, disciplinary problems, overcrowded classrooms, and language barriers, parameters should be provided for their choices. Therefore, the SDL capability approach was developed to assist teachers in realising their choices (regarding enhancing their own curriculum as praxis), by focusing, determining, prioritising and identifying parameters for their decisions (about the teacher they would want to be or could be) and to be content with their choices, while realising that they can still improve (see 3.5).

From the theoretical framework of my study, as well as during the empirical research process, it was apparent that specific SDL capabilities are available to the participating teachers to enhance their curriculum as praxis. This specific list of SDL capabilities developed from the body of scholarly work. Consequently, such a possible list of SDL capabilities (see 3.3.4) for teachers to enhance their curriculum as praxis, should consist of:
- personality traits of self-directed learners to:

- demonstrate initiative, independence and persistence in learning;
- accept responsibility for own learning;
- be capable of self-discipline;
- show a high degree of curiosity;
- show a strong desire to learn and change; and
- have self-confidence.
- SDL primary dimensions:
  - motivation;
  - metacognition; and
  - self-regulation.
- SDL secondary dimensions:
  - choice;
  - competence;
  - control; and
  - confidence.
- SDPD where teachers are considered and involved or where they are actively participating (this point will be substantiated in section 6.3.3).
- Teachers' freedom to develop their own professional authority and autonomy (this point will also be elaborated in section 6.3.3).

Keeping these SDL capabilities in mind, secondary research question two will now be answered.

6.3.2.4 Answering secondary research question two

Eight of the 16 initially participating teachers presented evidence of one personality trait (desire to learn and change or taking initiative, independence and persistence in learning) during the pre-SDPD interviews and six of the 16 teachers did not present any personality traits of a self-directed learner (see 5.2.1.1). These six teachers mostly seemed to be quite traditional in their view of the curriculum, which also seemed to influence their willingness to continue with this research. Some of these six teachers even stated that they had been teaching for many years and therefore, knew what to do. Interestingly, they then did not seem interested in continuing with this research. Although some of these six teachers withdrew because of personal reasons, some did not share their reason for withdrawing. Either way, these teachers' reluctance to continue with this research could not be followed up, because it fell outside the ethical clearance of my research. One of the

16 initially participating teachers associated with three personality traits (taking initiative, independence and persistence in learning; self-confidence; and self-discipline) and another one teacher related with four personality traits (desire to learn and change; high curiosity; taking initiative, independence and persistence in learning; and taking responsibility for own learning) (see 5.2.1.1). Considering only the seven teachers who completed the empirical research, one teacher associated with only one SDL capability, one teacher revealed three SDL capabilities, four teachers presented four SDL capabilities, and one teacher presented six SDL capabilities. Most importantly, the seven teachers who completed the SDPD did not seem to have freedom to achieve the type of teachers they could be (see 3.5).

Continuing from the answer of secondary research question one, it appeared that only four teachers seemed to have control over some of the elements of their curriculum as praxis, while three teachers seemed to be comfortable being controlled by the DBE expectations. Five teachers seemed to exercise choices regarding their curriculum as praxis, but these choices were superficially linked to DBE expectations, through only adding other worksheets or examples to the textbook or the CAPS. Therefore, most of the teachers did not seem to be able to utilise the SDL capabilities, because they did not refer to any of the SDL capabilities.

The choices (SDL capabilities) available to the participating teachers, thus did not completely emanate during the pre-SDPD interviews, because some of the SDL capabilities, metacognition, self-regulation, self-discipline, self-confidence, competence and confidence, did not feature or only featured a few times, which indicates a limited, restricted position regarding SDL capabilities. Thus, only a desire to learn and change could initially be established as an SDL functioning, because it prominently featured, during the pre-SDPD interviews, at six of the seven teachers who then continued with the SDPD.

6.3.3 Secondary research question three: what is needed in the 21st century in terms of self-directed learning capabilities to enhance teachers' curriculum as praxis?

To answer secondary research question three, the theoretical bases of the SDPD and development of such an SDPD, as it was applied for my research, will be addressed.

6.3.3.1 Theoretical bases of self-directed professional development

Concerns have been raised about professional development when it comes to teachers (Louws *et al.*, 2017). These concerns are that teachers are not adequately involved in the choice of content for teaching–learning, their needs are not considered, they are viewed as receivers of professional development rather than being actively involved, and their experiences are not appropriately considered (see 3.2.3). Consequently, Louws *et al.* (2017) continue that when teachers direct their own learning, they are likely to show high ownership, because their needs are included. Therefore, though much earlier already, Bouchard (1996) defines SDPD, where teachers are deliberately put central in the process of professional development, in such a way that their needs can be incorporated and addressed. Teachers having a voice in their own professional development were also confirmed by Beavers (2009). Therefore, an SDPD, for teachers as self-directed learners, should, as derived from Brockett (2006) and as indicated in Figure 6.2, –

- assist them in making good decisions about their own curriculum as praxis,
- while also recognising that they can still improve, and to
- take responsibility for their choices about their curriculum as praxis.

Teachers need to be assisted in utilising SDL capabilities so that their curriculum as praxis could be enhanced. In order to utilise SDL capabilities effectively, teachers need to be assisted to make good choices by:

- figuring out goal(s);
- evaluating the importance of each goal;
- considering the options;
- evaluating if these options will reach the goal(s);
- choosing the best option; and
- utilising the consequences to modify the goal(s), the importance that was assigned to the goal(s), and to evaluate future options (Schwartz, 2016:49; also see Figure 6.2).

Furthermore, Campbell (2006:111) argues that the professional authority of teachers should not be overshadowed by external curriculum expectations, but that it should rather be guided by teachers' "own capacity to exercise curricular and pedagogical knowledge with discretion, judgement, and proficiency". Successful curriculum implementation in the 21st century (see 2.5.4) relies on teachers' professional authority and autonomy regarding their own curriculum as praxis, through meaningful curriculum implementation as situational praxis (see 2.6.3, 3.2.2) and through

successfully utilising available SDL capabilities, so that a self-directed learning environment could be established that provides learners the autonomy to be inquisitive and to discover the world in which they live.

THEORETICAL SDPD

Included:

- process of SDL,
- possible SDL capabilities,
- concerns raised about professional development,
- combining SDL to professional development to get SDPD, and
- making good choices in the 21st century.

EMPIRICAL SDPD

Structured reflective prompts set out in:

SDPD 1

SDPD 2

SDPD 3

SDPD 4

SIGNIFICANCE OF THE SDPD

Implementation of an SDPD fostered SDL capabilities, which enhanced the participating teachers' curriculum as praxis.
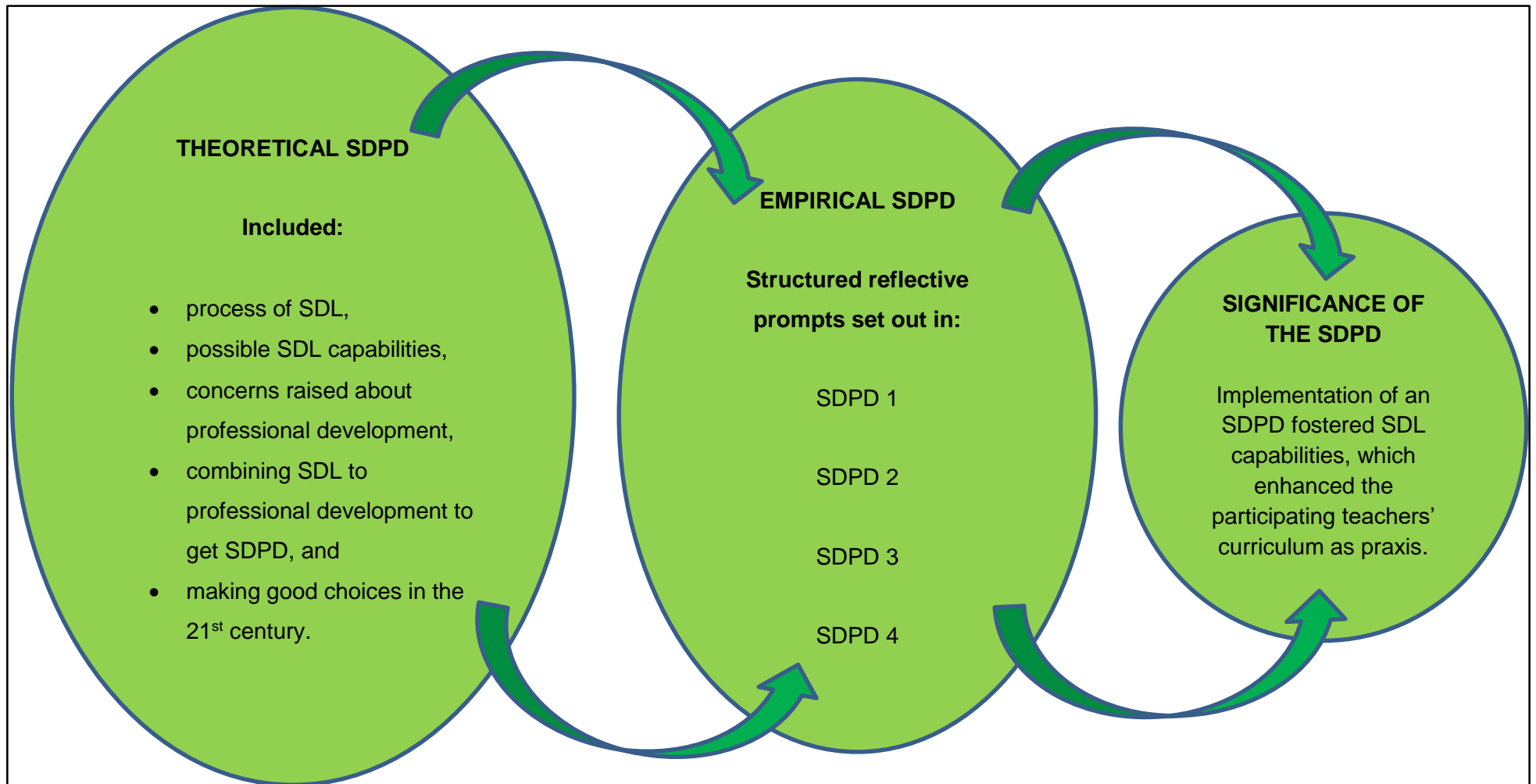
Figure 6.2: Theoretical and empirical bases of self-directed professional development to enhance teachers' curriculum as praxis
Author's own conceptualisation

6.3.3.2 Developing self-directed professional development for my study

From the theoretical discussions, as elucidated in Chapters 2 and 3, an SDPD was developed, also in consideration of the capability approach (theoretical framework), and realist evaluation (philosophical orientation) for empirical implementation of this research.

The SDPD was designed around structured reflections. Structured reflections entail reflection that is performed regularly and systematically (Reymen, 2001:38; 2003:3), as was facilitated by myself for this research. For my study, structured reflections seemed to be viable, because such reflection can be adapted to suit individual teachers. Although specific reflective prompts were shared with the teachers on a regular basis, the teachers' contexts and infrastructure differed, leading to different ways in which they were able to respond to these structured reflective prompts. Ultimately, the structured reflections, to support the SDPD, were theoretically, scholarly, philosophically and qualitatively underpinned to provide the most suitable professional development to teachers. Table 6.1 is similar to Table 4.3, but in Table 6.1 only the structured reflective prompts, as these were communicated with the participating teachers, are shared.

Referring to Figure 6.2 and Table 6.1, the following structured reflective prompts were developed for the specific SDPD, by drawing from the process of SDL, the SDL capabilities and the concerns that have been raised about professional development. SDL and professional development were then combined to design an SDPD, which also considered the steps for making good choices in the 21st century.

Table 6.1: Structured reflective prompts

Structured reflective prompts for the SDPD
SDPD 1:

1. Reflecting on your curriculum process of planning, preparing and implementing your lessons to include the following, think about examples of how these five points are included in your curriculum process:
      i.   Learner-centred teaching–learning activities and strategies;
      ii.   Real-life problems to work through during your teaching–learning process;
      iii.   Adaptability to be able to change your planning if the need or opportunity would come up;
      iv.   Teaching–learning opportunities for deeper understanding by the teacher and the learners; and

	v. Reflection on the curriculum by the teacher and the learners within your context.
2.	Reflect about challenges that you encounter within your curriculum process in relation to these five points.

SDPD 2:

1.	Regarding the challenges within your curriculum process that you previously identified, formulate goals for yourself that you think you might be able to achieve within the next 8 weeks? Please consider:
	i. whether these goals are equally important;
	ii. what options you have to help you to achieve these goals; and
	iii. which option(s) will help you the most to achieve these goals.
2.	Now formulate your own teaching–learning goal(s), with the option(s) that will mostly assist you in achieving these goal(s).

SDPD 3:

1.	Regarding the goal(s) and option(s) that you previously identified, consider all human and/or material resources that you possibly have available to assist you in achieving these goal(s).
2.	How can you now go about learning more in order to address the challenges you identified in the SDPD 1?
3.	Implement these options in your real context of planning, preparing and implementing the curriculum, in order to try and address your challenges.

SDPD 4:

1.	Regarding the challenges within your curriculum process that you previously identified, how well were you able to address these challenges, keeping in mind
	i. the goal(s) and option(s) you formulated for yourself;
	ii. the resources that you identified to approach and use; and
	iii. how you went about learning more about your challenges?
2.	Reflect on what you have learnt through this self-directed professional development and how can you apply it in future.
3.	What are the challenges that you experienced or foresee that could hinder you in applying this self-directed professional development process again in order to improve your curriculum process (curriculum as praxis)?

6.3.3.3 Answering secondary research question three

Answering secondary research question three cannot be done in isolation to the other secondary research questions. All seven teachers who participated in the SDPD as well as the post-SDPD interviews, experienced the SDPD as positive and worthwhile. These teachers' feedback ranged

from the SDPD assisting them to think wider and broader about their curriculum as praxis to even realising and broadening their views regarding the choices they have to gain professional authority and autonomy in their curriculum as praxis. Some teachers also advanced in taking control of their own learning and their own curriculum as praxis, while all of these teachers' SDL capabilities were utilised more effectively, thus becoming more self-directed in their curriculum as praxis.

During the data generation process, it was clarified that teachers need SDL capabilities (see 5.2.1–5.2.2), through exposure of an SDPD (see 5.2.3), to be able to enhance their curriculum as praxis (see 5.2.4, 5.3). The specific SDL capabilities that featured during the post-SDPD interviews were:

- to demonstrate initiative, independence and persistence in learning;
- taking responsibility for own learning;
- self-discipline;
- high curiosity;
- desire to learn and change;
- self-confidence;
- motivation;
- metacognition;
- self-regulation;
- choices;
- own control; and
- confidence.

The only SDL capability that did not feature during the post-SDPD was competence. This could be because none of the participating teachers seemed competent in controlling their own curriculum as praxis completely, because none of the teachers presented all of the elements of curriculum as praxis. That is not to say, though, that competence was not important, but rather that all of the participating teachers actually needed longer SDPD to develop competence in their curriculum as praxis. Simultaneously, it was also clear that the participating teachers' stance on curriculum seemed to promote their readiness to utilise the SDL capabilities (see 5.3). To promote teachers' readiness to utilise SDL capabilities through SDPD, is vital for the type of teaching necessary at present in the 21st century. Further clarification will follow in answering secondary research question four.

The outcome of this specific SDPD that was utilised to enhance teachers' curriculum as praxis will further be substantiated in section 6.3.4.

6.3.4 Secondary research question four: how can teachers be supported regarding utilising self-directed learning capabilities to enhance their curriculum as praxis?

To be able to answer secondary research question four, while also referring to Figures 6.2 and 6.3, the empirical bases for how teachers can be supported regarding utilising SDL capabilities to enhance their curriculum as praxis will firstly be addressed. Thereafter, secondary research question four will be answered while also making recommendations from lessons learnt from this research.

6.3.4.1 Empirical bases for how teachers can be supported regarding utilising self-directed learning capabilities to enhance their curriculum as praxis

To realise how the participating teachers were supported in utilising SDL capabilities to enhance their curriculum as praxis, it is important to summarise how the participating teachers have grown in their SDL capabilities and their curriculum as praxis from the pre-SDPD interviews to the post-SDPD interviews.

Initially, during the pre-SDPD interviews, the teachers who presented few (one to three) SDL capabilities (see 5.2.2), also related to only a few (one to three) elements of curriculum as praxis. The teachers who seemed traditional regarding the curriculum, only utilised two SDL capabilities, but the one teacher who utilised six SDL capabilities (see 5.2.2), also related to four elements of curriculum as praxis. Furthermore, the teachers who seemed contemporary regarding the curriculum, utilised more (two to six) of the SDL capabilities and more (two to four) elements of curriculum as praxis (see 5.2.2). Therefore, the SDL capabilities seemed to be in rapport with the elements of curriculum as praxis. As indicated in Figure 6.3, when the SDL capabilities were few, the elements of curriculum as praxis were also low. This relationship indicates that when teachers are able to utilise only a few SDL capabilities, they do not seem to have many choices or control over their curriculum as praxis. Evidently, they are unable to facilitate teaching–learning for the 21st century effectively, because they do not seem to be contemporarily grounded in their curriculum stance. However, when more SDL capabilities were utilised, the elements of curriculum as praxis also seemed to feature more often. This relationship indicates that when teachers are already utilising more SDL capabilities, they also seemed to have more choices and

control over their curriculum as praxis, than other teachers. Evidently, they are able to facilitate teaching–learning for the 21st century more effectively, because they seemed to be contemporarily grounded in their curriculum stance.
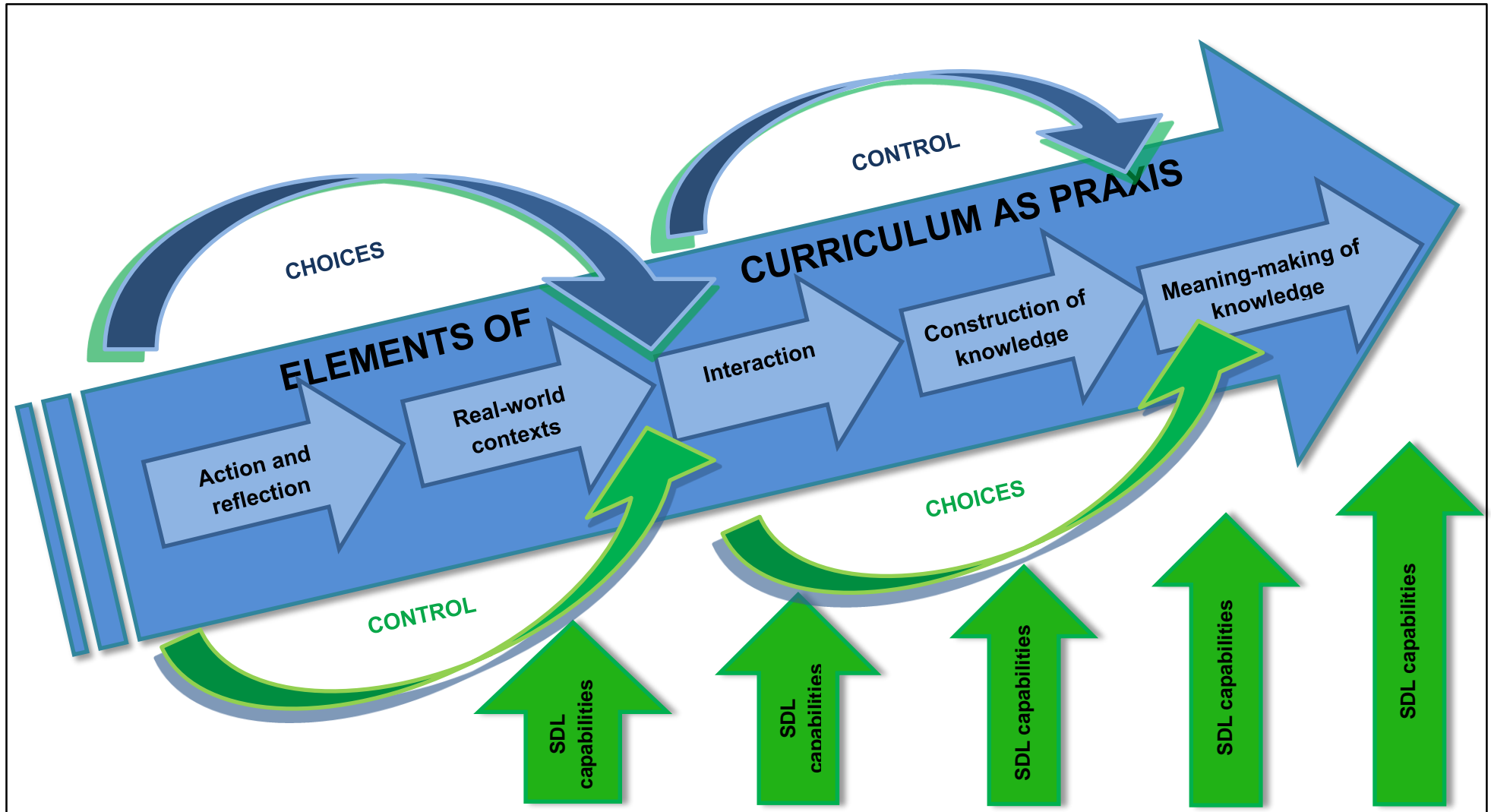
Figure 6.3: The rapport between self-directed learning capabilities and elements of curriculum as praxis
Author's own conceptualisation

Only three of the initially traditional teachers continued with the empirical research (see 5.2.3) and two of them broadened and enhanced their curriculum understanding to be closer to a contemporary stance of the curriculum (see 5.2.5, 5.3, 5.4; Table 5.2). The other teacher appeared to be traditional throughout the SDPD, but nevertheless, she also seemed to realise that she does have choices to change her own curriculum as praxis, through more effective planning and taking responsibility for her own planning. This teacher thus appeared to gain awareness about SDL capabilities, which also enhanced her curriculum as praxis. Thus, it seemed that the SDPD did indeed support these teachers to enhance their curriculum as praxis, because they enhanced their SDL capabilities and their curriculum as praxis and to improve the value and quality of their learners' learning experiences.

Four of the initially contemporary teachers continued and finished the empirical research. Three of these teachers ended with a contemporary stance on the curriculum during the post-SDPD interviews (see 5.2.5; Table 5.2). The other teacher appeared to stay the same with regard to her SDL capabilities as well as her utilisation of the elements of curriculum as praxis. Nevertheless, this teacher also started to realise the choices she might have had to enhance her curriculum as praxis through the SDPD. Even though three other teachers maintained their contemporary stance on curriculum (see 5.2.5; Table 5.2), the SDPD still seemed to have supported them in enhancing their contemporary stance on curriculum, because initially, two of these teachers did not seem to have choices about their own curriculum as praxis. After the SDPD, all three of these teachers have gained control over, as well as awareness of choices about their own curriculum as praxis. These teachers also seemed to utilise more SDL capabilities than during the pre-SDPD interviews. Therefore, the SDPD seemed to support these teachers in gaining awareness of the possibilities, through SDL capabilities, to have control over their own curriculum as praxis, while being able to exercise choices regarding their own curriculum as praxis.

While scrutinising the data of this research, it again became evident how influential the participating teachers' experience and their understanding of control and choice could be for their own curriculum as praxis. Initially, four of the seven teachers who completed the empirical research, appeared to be under control of the DBE. All of them also initially seemed to be limited in their choices regarding their curriculum as praxis. All of these teachers seemed to have gained a realisation of choices, or more choices that are available to them to enhance their own curriculum as praxis. For some of them, the DBE still seemed to control their curriculum as praxis somewhat, while one teacher seemed to have gained much control of her own curriculum as praxis.

Initially, only few teachers appeared to have control of some of the elements of their curriculum as praxis. One of these teachers seemed to have limited choices, however, because she voiced the necessity to follow the prescribed CAPS meticulously, and by strictly following the CAPS, teachers are restricted in growing in their self-directedness and autonomy. However, all of these teachers also gained awareness regarding the choices available to them to enhance their curriculum as praxis. Two teachers also still felt some control from the DBE, while one teacher seemed to have gained even more control of her own curriculum as praxis, than what she appeared to have during the pre-SDPD interview. Having more control over your curriculum as praxis will enable teachers to provide meaningful SDL.

Consequently, two teachers initially seemed to be controlled by the DBE, and they both gained control of some elements of their curriculum as praxis. Another two teachers who seemed to be controlled by the DBE during the pre-SDPD interviews, still seemed to be controlled by the DBE at the post-SDPD interviews. Two teachers who seemed to have some control of their curriculum as praxis, seemed to be somewhat more controlled by the DBE during the post-SDPD interviews, but they both gained realisation of choices to enhance their curriculum as praxis. One teacher who seemed to have some control of her curriculum as praxis, seemed to have gained more control of her curriculum as praxis. Interestingly, all these teachers seemed to have enhanced in their awareness of the choices that are available to them to enhance their curriculum as praxis.

In the following section, secondary research question four will specifically be answered.

6.3.4.2 Answering secondary research question four

Even though the review of the body of scholarly works (see Chapter 2 & 3) constituted already existing works, the necessity of SDL, the capability approach, as well as an SDPD was then argued for the 21st century. Furthermore, a new contribution was added by emphasising the need for SDPD that is developed from an SDL capability approach to enhance teachers' curriculum as praxis (see 3.5), as has also been emphasised throughout this chapter.

From the discussions of this chapter, it was clear that an SDPD (developed around SDL capabilities) could provide the necessary support for teachers to enhance their curriculum as praxis. Such an SDPD proved to have a positive influence to support teachers to enhance their curriculum as praxis (see 5.3), especially when teachers are supported, throughout an SDPD, to gain realisation about the choices that are actually available to them and the benefits of such choices.

6.3.5 Answering the primary research question: how can a self-directed learning capability approach enhance teachers' curriculum as praxis?

In Chapter 6, the secondary research questions were addressed and answered. The answering of these secondary research questions supported and contributed to the answering of the main research question. Thus, I conclude that teachers' curriculum as praxis was enhanced through the SDPD that was implemented in this research. More specifically (also see Figure 6.3), SDPD, designed around SDL capabilities, was shown to enhance mainly the participating teachers' awareness of choices to gain control over their curriculum as praxis. Gaining control and awareness of choices to enhance their own curriculum as praxis, to underscore curriculum implementation as situational praxis, showed to assist teachers to possibly enhance their own professional authority, because all the teachers' utilisation of SDL capabilities also improved. Enhancing teachers' own professional authority is an important constituent in constructing an active SDL environment for themselves and their learners.

6.4 SHORTCOMINGS OF, AND RECOMMENDATIONS FROM THIS STUDY

Even though the SDPD that was designed and implemented in this research, proved to yield positive results, there were shortcomings and recommendations related to my study. Not all the participating teachers were fully equipped to answer the reflective prompts electronically, even though they all opted to use e-mail correspondence. Other ways of facilitating structure reflections could be considered, for instance, to employ reflective journaling.

Although almost half of the initial participating teachers continued and completed the research, the time spent on the empirical research did not seem sufficient. This was also mentioned in section 1.1, where, referring to Kay (2010:xxv), it was explained that teachers will not "break out of the 20th century box" without continuous self-development. In the analysed data, it was highlighted that the traditional teachers struggled to utilise their SDL capabilities to enhance their curriculum as praxis. As was clear from Chapter 2, philosophical underpinnings take time to develop and influence educational philosophies, and hence, curriculum philosophies. It was thus apparent that teachers would also need time to adapt to different philosophical thoughts and to improve through SDPD. A longer implementation period of the SDPD would be more feasible.

An additional limitation of my study was the small number of participating teachers and the continuation of teachers throughout the research. With qualitative research, one should always prepare for some participants that will withdraw; therefore, it would be beneficial to start with a

large population. However, a large population over a big geographical area holds considerable time and financial implications. For my study, I initially aimed at including a large number of teachers to make provision for teachers who would possibly drop-out; however, it still proved challenging to obtain sufficient participants for such a long intervention period. In addition, more than half of the initial population withdrew, which was not ideal. I would; therefore, recommend that an even larger geographical area or a larger initial sample should be considered for similar research.

Furthermore, many of the participating teachers seemed to understand and perceive the CAPS and DBE expectations as limiting, even if this might not have been the goal of the DBE. Thus, the DBE could consider making teachers aware that the prescribed curriculum, even if it is not the CAPS, but another curriculum of the future, should not be viewed as limiting and hindering their teaching–learning, and curriculum as praxis.

6.5   RECOMMENDATIONS FOR FURTHER RESEARCH

Apart from recommendations made regarding designing and implementing SDPD, it might also be valuable to conduct a study that is focused on how teachers' professional authority and autonomy could be enhanced. Ideas regarding such a study came out of my study, but because it was not part of the aim of my study, it was not specifically researched.

Another recommendation would be to enlarge the sample and then to conduct a similar, but longitudinal study regarding the SDPD that should support teachers in adapting their curriculum as praxis for the 21st century, especially regarding developing SDL capabilities over a longer period of time.

6.6   FINAL REMARKS AND REFLECTIONS

In my study, a way of utilising SDL capabilities was researched to enhance teachers' curriculum as praxis. My study generated new findings regarding appropriate SDL capabilities that can be utilised, through SDPD, by teachers to enhance their curriculum as praxis. Furthermore, the importance of teachers' understanding regarding curriculum also emerged as another priority for adapting towards contemporary, 21st-century educational expectations. Lastly, a possible list of SDL capabilities to enhance teachers' curriculum as praxis (see 6.3.2.3), was also contributed as a new finding. A remarkable rapport between SDL capabilities and elements of curriculum as praxis for teachers was established in my study. This rapport opens up further opportunities for research, curriculum development and teacher development.

REFERENCE LIST

Abrie, M., Blom, N. & Fraser, B. 2016. Theoretical foundations. (*In* Jacobs, M., Vakalisa, N.C.G. & Gawe, N. *eds.* Teaching–learning dynamics. 5th ed. South Africa: Pearson. p. 1-37).

Alkire, S. 2008. Using the capability approach: prospective and evaluative analyses. (*In* Comim, F., Qizilbash, M. & Alkire, S. *eds.* The capability approach: concepts, measures and applications. Cambridge: Cambridge. p. 26-49).

Anfara, V.A. 2008. Theoretical framework. (*In* Given, L.M. *ed.* The SAGE Encyclopedia of qualitative research methods. Los Angeles: Sage. p. 869-873).

Aoki, T.T. 2005 [1983]. Curriculum implementation as instrumental action and as situational praxis. (*In* Pinar, W.F. & Irwin, R.L. *eds.* 2005. Curriculum in a new key: the collected works of Ted T Aoki. London: Lawrence Erlbaum Associates Publishers. p. 111-123).

Apple, M.W. 2013 [1986]. Controlling the work of teachers. (*In* Flinders, D.J. & Thornton, S.J. *eds.* 2013. The curriculum studies reader. New York: Routledge. p. 167-181).

Aronowitz, S. & Giroux, H. 1991. Postmodern education: politics, culture and social criticism. Minneapolis: University of Minnesota.

Babbie, E.R. & Mouton, J. 2008. The practice of social research. 8th ed. Goodwood: Oxford.

Bagley, W.C. 1907. The educative process. Oxford, England: Macmillan.

Balaban Dağal, A. & Bayindir, D. 2016. The investigation of the level of self-directed learning readiness according to the locus of control and personality traits of preschool teacher candidates. *International electronic journal of elementary education,* 8(3):391-402.

Bates, R. 2007. Developing capabilities and the management of trust. (*In* Walker, M. & Unterhalter, E. *eds.* Amartya Sen's capability approach and social justice in education. New York: Macmillan. p. 137-156).

Beavers, A. 2009. Teachers as learners: implications of adult education for professional development. *Journal of college teaching and learning,* 6(11):25-30.

Berger, P.L. & Luckmann, T. 1967. The social construction of reality. Harmondsworth: Penguin books.

Bernhardt, P.E. 2015. 21st Century learning: professional development in practice. *The qualitative report*, 20(1):1-19.

Biggeri, M. 2007. Children's valued capabilities. (*In* Walker, M. & Unterhalter, E. *eds*. Amartya Sen's capability approach and social justice in education. New York: Macmillan. p. 197-214).

Bode, B.H. 1938. Progressive education at the crossroads. New York: Newson and Co.

Bolhuis, S. 2003. Towards process-orientated teaching for self-directed lifelong learning: a multidimensional perspective. *Learning and instruction*, 13:327-347.

Bolhuis, S. & Voeten, M.J.M. 2001. Towards self-directed learning in secondary schools: what do teachers do? *Teaching and teacher education,* 17:837-835.

Booyse, C. & Du Plessis, E. 2014. Curriculum studies: development, interpretation, plan and practice. 2nd ed. Pretoria: Van Schaik.

Bouchard, P. 1996. Towards an etiological model of self-directed professional development. Quebec, Canada: Social Sciences and Humanities Research Council of Canada.

Breunig, M. 2005. Turning experiential education and critical pedagogy theory into praxis. *Journal of experiential education*, 28(2):106-122.

Brockett, R.G. 2006. Self-directed learning and the paradox of choice. *International journal of self-directed learning*, 3(2).

Callahan, R.E. 1962. Education and the cult of efficiency. Chicago: Chicago University Press.

Campbell, E. 2006. Editorial: curricular and professional authority in schools. *Curriculum inquiry*, 36(2):111-118.

Carl, A.E. 2012. Teacher empowerment through curriculum development: theory into practice. 4th ed. Cape Town: Juta.

Carson, T.R. 2010. Curriculum implementation. (*In* Kridel, C. *ed.* Encyclopedia of Curriculum Studies. Thousand Oaks: Sage. p. 212-213).

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J. & Neville, A.J. 2014. The use of triangulation in qualitative research. *Oncology nursing forum*, 41(5):545-547.

Cazzell, M., Theriot, S., Blakey, J. & Sattler, M. 2014. Transformation of, in, and by learning in a service-learning faculty fellows programme. *Journal of service-learning in higher education*, 3:30-46.

Chisholm, L. 2005. The politics of curriculum review and revision in South Africa in regional context. *Compare*, 35(1):79-100.

Cornbleth, C. 1988. Curriculum in and out of context, *Journal of curriculum and supervision,* 3(2):85–96.

Counts, G.S. 1932. Dare the school build a new social order? New York: John Day.

Craft, A. 1997. Identity and creativity: educating teachers for postmodernism? *Teacher development*, 1(1):83-96.

Curran, V., Gustafson, D.L., Simmons, K., Lannon, H., Wang, C., Garmsiri, M., Fleet, L. & Wetsch, L. 2019. Adult learners' perceptions of self-directed learning and digital technology usage in continuing professional education: an update for the digital age. *Journal of adult and continuing education*, 25(1):74-93.

Darling-Hammond, L. 1996. The right to learn and the advancement of teaching: research, policy, and practice for democratic education. *Educational researcher*, 25(6):5–17.

Darling-Hammond, L. 2016. Research on teaching and teacher education and its influences on policy and practice. *Educational researcher*, 45(2):83–91.

Darling-Hammond, L. 2017a. Teacher education around the world: what can we learn from international practice? *European journal of teacher education*, 40(3):291–309.

Darling-Hammond, L. 2017b. Teaching for social justice: resources, relationships, and anti-racist practice. *Multicultural perspectives*, 19(3):133–138.

Department of Basic Education *see* South Africa. Department of Basic Education.

De Vos, A.S., Strydom, H., Fouché, C.B. & Delport, C.S.L. 2011. Research at grass roots. 4th ed. Pretoria: Van Schaik.

Dewey, J. 1916. Democracy and education. New York: Free Press.

Doll Jr, W.E. 1986. Prigogine: A new sense of order, a new curriculum. *Theory into practice*, 25(1):10-16.

Egan, J. 2008. Email interview. (*In* The Sage encyclopedia of qualitative research methods, 1&2:244).

Eisner, E.W. 1996. Cognition and curriculum reconsidered. 2nd ed. New York: Paul Chapman Publishing.

Elmore, R.E. 2007. School reform from the inside out. Cambridge, MA: Harvard Education Press.

Esteve, J.M. 2000. The transformation of the teachers' role at the end of the twentieth century: new challenges for the future. *Educational review*, 52(2):197-207.

Frame, J. 2003. Theorising curriculum. (*In* Coleman, M., Graham-Jolly, M. & Middlewood, D. *eds*. Managing schools in South Africa: managing the curriculum in South African schools. London: Commonwealth secretariat).

Freire, P. 2005 [1970, 1993]. Pedagogy of the oppressed. New York, NY: Continuum.

Friedman, T.L. 2005. The world is flat: a brief history of the twenty-first century. New York: Penguin.

Garrison, D.R. 1997. Self-directed learning: towards a comprehensive model. *Adult education quarterly,* 48(1):18-33.

Gezer, M. 2018. An analysis of correlations between prospective teachers' philosophy of education and their attitudes towards multicultural education. *Teacher education & development*, 5:1-21.

Golafshani, N. 2003. Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4):597-607.

Goodnough, K. & Murphy, E. 2017. An analysis of the professional learning of science teaching using the metaphor of learning by expanding. *Issues in educational research*, 27(1):64-81.

Graham-Jolly, M. 2003. The nature of curriculum. (*In* Coleman, M., Graham-Jolly, M. & Middlewood, D. *eds*. Managing schools in South Africa: managing the curriculum in South African schools. London: Commonwealth secretariat).

Grant, C. & Osanloo, A. 2014. Understanding, selecting, and integrating a theoretical framework in dissertation research: creating the blueprint for your "house". *Administrative issues journal: connecting education, practice, and research*, 4(2):12-26.

Grundy, S. 1987. Curriculum: product or praxis. Philadelphia: The Falmer Press.

Guglielmino, L.M. 1978. Development of the self-directed learning readiness scale. University of Georgia (Thesis – PhD).

Guglielmino, L.M. 2013. The case for promoting self-directed learning in formal education institutions. *SA-eDUC,* 10(2):1-18.

Gutek, G.L. 2009. New perspectives on philosophy and education. Boston: Pearson.

Gutek, G.L. 2014. Philosophical, ideological, and theoretical perspectives on education. 2nd ed. New Jersey, USA: Pearson.

Habermas, J. 1972. Knowledge and human interests, 2nd ed. London: Heinemann.

Hayden, E.M. & Chiu, M.M. 2015. Reflective teaching via a problem exploration – teaching adaptations – resolution cycle: a mixed methods study of preservice teachers' reflective notes. *Journal of mixed methods research*, 9(2):133-153.

Hlebowitsh, P.S. 2005. Designing the school curriculum. Boston, MA: Pearson.

Hoadley, U. & Jansen, J. 2012. Curriculum: organising knowledge for the classroom. 3rd ed. Cape Town: Oxford.

Holma, K. 2010. The strict analysis and the open discussion. (*In* Ruitenberg, C. *ed.* What do philosophers of education do? And how do they do it?. Oxford: Wiley-Blackwell).

Hursen, C. 2016. The impact of curriculum developed in line with authentic learning on the teacher candidates' success, attitude and self-directed learning skills. *Asia pacific education review,* 17:73-86.

Hutchins, R.M. 1972. The great anti-school campaign. (*In* Hutchins R.M. & Adler, M. *eds.* The great idea today. Chicago: Encyclopaedia Britannica).

Huxley, A. 1945. The perennial philosophy. United Kingdom: Harper & Brothers.

Hyland, K. & Paltridge, B. 2011. Introduction. (*In* Hyland, K. & Paltridge, B. *eds.* Continuum companion to discourse analysis. London: Continuum. p. 1-5).

Jackson, D. 2017. Developing pre-professional identity in undergraduates through work-integrated learning. *Higher education*, 74:833-853.

Jacobs, M. 2016. Curriculum. (*In* Jacobs, M., Vakalisa, N.C.G. & Gawe, N. *eds.* Teaching–learning dynamics. 5th ed. South Africa: Pearson).

Janks, H. 2014. Globalisation, diversity, and education: a South African perspective. *The educational forum*, 78(1):8-25.

Johnston, K., Conneely, C., Murchan, D. & Tangney, B. 2015. Enacting key skills-based curricula in secondary education: lessons from a technology-mediated, group-based learning initiative. *Technology, pedagogy and education*, 24(4):423-442.

Jones, R.H. 2011. Data collection and transcription in discourse analysis. (*In* Hyland, K. & Paltridge, B. *eds.* Continuum companion to discourse analysis. London: Continuum. p. 9-21).

Kay, K. 2010. 21st Century skills: why they matter, what they are, and how we get there. (*In* Bellanca, J. & Brandt, R. *eds.* 21st Century skills: rethinking how students learn. USA: Solution-Tree. p. xiii-xxxi).

Kemmis, S., Ax, J., Ponte, P., Rönnerman, K. & Salo, P. 2008. Reflections on 'Examining praxis'. (*In* Mattsson, M., Johansson, I. & Sandström, B. *eds.* Examining praxis. The Netherlands: Sense. p. 187-207).

Kilpatrick, W.H. 1918. The project method: the use of the purposeful act in the educative process. *Teachers college record*, Columbia University.

Knowles, M. 1975. Self-directed learning: a guide for learners and teachers. USA: Cambridge.

Kohn, S.S. 2008. Teaching beyond modernism and postmodernism. *The English journal*, 97(6):70-74.

Konecki, K.T. 2008. Triangulation and dealing with the realness of qualitative research. *Qualitative sociology review*, IV(3):7-28.

Krabbe, M.A. 1983. Self-directed learning of the basic skills. *The clearing house: a journal of educational strategies, issues and ideas,* 56(8):372–373.

Kuklys, W. & Robeyns, I. 2010. Sen's capability approach to welfare economics. (*In* Kuklys, W. *ed.* Amartya Sen's capability approach: theoretical insights and empirical applications. Germany: Springer. p. 9-30).

Lai, C., Gardner, D. & Law, E. 2013. New to facilitating self-directed learning: the changing perceptions of teachers. *Innovation in language and learning and teaching,* 7(3):281-294.

Long, H. 1987. Self-directed learning and learning theory. Paper presented at Commission of Professors Conference, Washington, D.C, 19-21 October.

Long, H.B. 2000. Practice & theory in self-directed learning. Schaumburg: Motorola.

Louws, M.L., Meirink, J.A., Van Veen, K. & Van Driel, J.H. 2017. Teachers' self-directed learning and teaching experience: what, how, and why teachers want to learn. *Teaching and teacher education*, 66:171-183.

Magrini, J.M. 2015. Phenomenology and curriculum implementation: discerning a living curriculum through the analysis of Ted Aoki's situational praxis. *Journal of curriculum studies,* 47(2):274-299.

Major, J. 2011. Changing pedagogical practice in teacher education: negotiating the spaces between realism and relativism. *Studying teacher education*, 7(3):249-262.

Makrakis, V. & Kostoulas-Makrakis, N. 2016. Bridging the qualitative-quantitative divide: experiences from conducting a mixed methods evaluation in the RUCAS programme. *Evaluation and program planning,* 54:144-151.

Marulcu, I. & Akbiyik, C. 2014. Curriculum ideologies: re-exploring prospective teachers' perspectives. *International journal of humanities and social sciences*, 4(5):200-206.

Meirink, J.A., Meijer, P.C., Verloop, N. & Bergen, T.C.M. 2009. Understanding teacher learning in secondary education: the relations of teacher activities to changed beliefs about teaching and learning. *Teaching and teacher education*, 25:89-100.

Mentz, E. 2014. Using pair programming as a capability creating tool. (*In* Mokoena, M.A & Oosthuizen, I. *eds.* Nuances of teaching, learning and research. Potchefstroom: Andcork. p. 25-42).

Merriam, S.B. 2009. Qualitative research: a guide to design and implementation. USA: Jossey-Bass.

Merriam, S.B. & Bierema, L.L. 2014. Adult learning: linking theory and practice. San Francisco, CA: Jossey-Bass.

Merriam, S.B. & Tisdell, E.J. 2016. Qualitative research: a guide to design and implementation. San Francisco, CA: Jossey-Bass.

Miller, K.K. & Gonzales, A.M. 2016. Short-term international internship experiences for future teachers and other child development professionals. *Issues in educational research*, 26(2):241-259.

Mushayikwa, E. 2013. Teachers' self-directed professional development: Science and Mathematics teachers' adoption of ICT as a professional development strategy. *African journal of research in Mathematics, Science and Technology education,* 17(3):275-286.

Nasri, N.M. 2017. Self-directed learning through the eyes of teacher educators. *Kasetsart journal of Social Sciences*, 1-8.

Nieuwenhuis, J. 2009a. Qualitative research designs and data gathering techniques. (*In* Maree, K. *ed.* First steps in research. Pretoria: Van Schaik. p. 70-97).

Nieuwenhuis, J. 2009b. Analysing qualitative data. (*In* Maree, K. *ed.* First steps in research. Pretoria: Van Schaik. p. 99-122).

Nussbaum, M.C. 1997. Capabilities and human rights. *Fordham law review*, 66(2):273-300.

Nussbaum, M.C. 2000a. Women's capabilities and social justice. *Journal of human development*, 1(2):219-247.

Nussbaum, M.C. 2000b. Women and human development: the capability approach. University press: Cambridge.

Nussbaum, M.C. 2003. Capabilities as fundamental entitlements: Sen and social justice. *Feminist economics,* 9(2):33-59.

Nussbaum, M.C. 2011. Creating capabilities: the human development approach. London: Harvard.

Ogrinc, G. & Batalden, P. 2009. Realist evaluation as a framework for the assessment of teaching about the improvement of care. *Journal of nursing education*, 48(12):661-667.

Ornstein, A.C. 2011. Contemporary issues in curriculum. (*In* Ornstein, A.C., Pajak, E.F. & Ornstein, S.B. *eds.* Contemporary issues in curriculum. 5th ed. New York: Pearson).

Ornstein, A.C. & Hunkins, F.P. 2013. Curriculum: foundations, principles and issues. 6th ed. New Jersey: Pearson.

Ornstein, A.C. & Hunkins, F.P. 2018. Curriculum: foundations, principles and issues. 7th ed. New York: Pearson.

Paltridge, B. 2006. Discourse analysis. London: Continuum.

Pawson, R. 2013. The science of evaluation: a realist manifesto. Los Angeles: Sage.

Phan, T.N., Lupton, M. & Watters, J.J. 2016. Understanding of the higher education curriculum in Vietnam. *Higher education research & development,* 35(6):1256–1268.

Posner, G. 1998. Models of curriculum planning. (*In* Beyer, L. & Apple, M. *eds.* The curriculum: problems, politics and possibilities. 2nd ed. New York: State University).

Rescher, N. 1996. Idealism. (*In* Chambliss, J.J. ed. Philosophy of education: an encyclopedia. New York: Garland Publishing).

Reymen, I.M.M.J. 2001. Improving design processes through structured reflection: a domain-independent approach. SAI Report: The Netherlands.

Reymen, I.M.M.J. 2003. Research on design reflection: overview and directions. *International conference on engineering design*, 3:1-10.

Robeyns, I. 2005. The capability approach: a theoretical survey. *Journal of human development,* 6(1):93-114.

Robinson, O.C. 2014. Sampling in interview-based qualitative research: a theoretical and practical guide. *Qualitative research in psychology*, 11:25-41.

Rosenthal, S. 1996. Pragmatism. (*In* Chambliss, J.J. ed. Philosophy of education: an encyclopedia. New York: Garland Publishing).

Rousseau, J.J. 1955 [1762]. Émile ou de l'Éducation, translated by Foxley, B. 1955. Emile, or Education. New York: Dutton.

Ryan, A. 2005. Teacher development and educational change: empowerment through structured reflection. *Irish educational studies*, 24(2-3):179-198.

Saçli Usunöz, F. 2016. The philosophical dispositions of pre-service teachers and teacher educators. *Educational research and reviews*, 11(1):30-36.

Saks, K. & Leijen, A. 2014. Distinguishing self-directed and self-regulated learning and measuring them in the e-learning context. *Procedia: social and behavioural sciences*, 112:190-198.

Saldaña, J. 2016. The coding manual for qualitative researchers. Los Angeles: Sage.

Sarason, S.B. 1990. The predictable failure of educational reform. San Francisco: Jossey-Bass.

Schiro, M.S. 1978. Curriculum for better schools: the great ideological debate. New Jersey: Educational Technology Publications.

Schiro, M.S. 2013. Curriculum theory: conflicting visions and enduring concerns. 2nd ed. Los Angeles: Sage.

Schwandt, T.A. 2007. The Sage dictionary of qualitative inquiry. Los Angeles: Library of congress cataloging-in-publication data.

Schwartz, B. 2016. The paradox of choice: why more is less. New York, NY: HarperCollins.

Sen, A.K. 1980. Equality of what? Stanford University: Tanner Lectures on Human Values.

Sen, A.K. 1992. Inequality re-examined. Cambridge, MA: Harvard University Press.

Sen, A. K. 2000. Development as freedom. Toronto, Canada: Random House.

Sen, A.K. 2004. Dialogue capabilities, lists, and public reason: continuing the conversation. *Feminist economics*, 10(3):88–80.

Shawer, S. 2010. Classroom-level teacher professional development and satisfaction: teachers learn in the context of classroom-level curriculum development. *Professional development in education*, 36(4):597-620.

Shekarey, A. & Rahimi, A. 2006. The consequences of the binary opposition/continuation approaches to modernism and postmodernism: a critical educational study. *TAMARA: journal of critical postmodern organization science*, 5(5.1):65-72.

Shulman, L.S. 1986. Those who understand: Knowledge growth in teaching. *Educational researcher*, 15(2):4-14.

Shumack, K. 2010. The conversational self: structured reflection using journal writings. *Journal of research practice*, 6(2):1-22.

Slattery, P. 2013. Curriculum development in the postmodern era: teaching and learning in an age of accountability. 3rd ed. New York: Routledge.

Snyder, J., Bolin, F. & Zumwalt, K. 1992. Curriculum implementation. (*In* Jackson, P.W. *ed.* Handbook of research on curriculum. New York: Macmillan. p. 402-435).

South Africa. Department of Basic Education. 2011a. National Curriculum Statement (NCS) – Curriculum and Assessment Policy Statement. Mathematics, intermediate phase Grades 4-6. Pretoria: State Printers.

South Africa. Department of Basic Education. 2011b. Action plan to 2014: towards the realisation of schooling 2025, full version. Pretoria: State Printers.

South Africa. Department of Basic Education. 2012. National protocol for assessment, grades R-12. Pretoria: State Printers.

Stenhouse, L. 1975. An introduction to curriculum research and development. Heinemann: London.

Steyn, G.M. 2013. Building professional learning communities to enhance continuing professional development in South African schools. *Anthropologist*, 15(3):277-289.

Straka, G.A. 2000. Conditions promoting self-directed learning at the workplace. *Human resource development international,* 3(2):241-251.

Tan, C. 2006. Philosophical perspectives on education. (*In* Tan, C., Wong, B., Chua, J.S.M. & Kang, T. *eds.* Critical perspectives on education: an introduction. Singapore: Prentice Hall. p. 21-40).

Tao, S. 2013. Why are teachers absent? Utilising the capability approach and critical realism to explain teacher performance in Tanzania. *International journal of educational development*, 33:2-4.

Teng, F.M. 2019. Autonomy, agency, and identity in teaching and learning English as a foreign language. Singapore: Springer.

Themane, M.J. 2011. Understanding curriculum: a challenge to curriculum development in teacher education programmes. *South African journal of higher education*, 25(8):1639-1651.

Thornton, S.J. 2010. Curriculum design. (*In* The encyclopedia of curriculum studies, 2).

Trafford, V. & Leshem, S. 2008. Stepping stones to achieving your doctorate: by focusing on your viva from the start. Open University Press: McGraw Hill.

Trilling, B. & Fadel, C. 2009. 21st Century skills: learning for life in our times. San Francisco: Wiley.

Tyler, R. 1949. Basic principles of curriculum and instruction. University of Chicago Press: Chicago.

Unterhalter, E. & Brighouse, H. 2007. Distribution of what for social justice in education? The case of education for all by 2015. (*In* Walker, M. & Unterhalter, E. *eds.* Amartya Sen's capability approach and social justice in education. New York: Macmillan. p. 67-86).

Urban, V.D. 2000. Teachers, self-directed learning and teachers' involvement in school reform. (*In* Long, H.B. *ed.* Practice & theory in self-directed learning. Schaumburg: Motorola. p. 231-245).

Van Bell, S.B., Marchal, B., Dubourg, D. & Kegels, G. 2010. How to develop a theory-driven evaluation design? Lessons learned from an adolescent sexual and reproductive health programme in West Africa. *BMC public health*, 10:741.

Van Deur, P. 2018. Managing self-directed learning in primary school education: emerging research and opportunities. Hershey: IGI Global.

Walker, M. 2006. Towards a capability-based theory of social justice for education policy-making. *Journal of education policy*, 21(2):163-185.

Wells, T. 2015. Sen's capability approach. (*In* Internet encyclopedia of philosophy. https://www.iep.utm.edu/sen-cap/ Date of access 13 Feb. 2016).

Wraga, W.G. 2017. Understanding the Tyler Rationale: basic principles of curriculum and instruction in historical context. *Espacio, tiempo y educación*, 4(2):227-252.

Yek, T.M. & Penney, D. 2006. Curriculum as praxis: ensuring quality technical education in Singapore for the 21st century. *Education policy analysis archives*, 14(26):1-31.

Yilmaz, K., Altinkurt, Y. & Çokluk, Ö. 2011. Developing the educational belief scale: the validity and reliability study. *Educational sciences: theory and practice*, 11(1):343-350.

Yin, R.K. 2011. Qualitative research from start to finish. New York: The Guildford Press.

Zepke, N. & Leach, L. 2002. Contextualised meaning-making: one way of rethinking experiential learning and self-directed learning? *Studies in continuing education*, 24(2):205-217.

Zirhlioğlu, G. & Yayla, A. 2016. The investigation of the education philosophy of the education faculty students of Yuzuncu Yil university with the Q method. *Universal journal of educational research*, 4(9):2110-2118.

ADDENDA

ADDENDUM A
PRE-SELF-DIRECTED PROFESSIONAL DEVELOPMENT INTERVIEW SCHEDULE

I would like to record this interview in order to be able to listen to it again and to properly transcribe all the detail that will be discussed. Would you mind if I recorded this interview?

1. Which subject(s) are you teaching to Grade 9 learners?
2. Who are all the role players that have an influence on how you plan, prepare and implement the prescribed curriculum of these subjects?
   2.1 Can you please elaborate on each of these role players' influences?
   2.2 Which other possible support systems or resources can you identify, that might be able to support you in implementing the curriculum?
3. Describe how you perceive the intended curriculum of SA (CAPS), of your specific subjects.
4. While you are busy with a lesson, what are the roles and responsibilities of the learners in your class?
5. Explain your own process of planning, preparing and implementing your lessons.
6. Explain what you do, as a teacher, to keep up-to-date and informed regarding educational developments.

Introducing and orienting the self-directed professional development as intervention:
(The structured reflections will be explained and the logistics regarding the specific teacher's possibilities for electronic communication will be discussed).

Conclusion:
Thank you dearly for your willingness to participate and to provide time for this research. Please feel free to contact any of the researchers as mentioned on the consent form if you experience any trouble or need to ask any question about this research during the duration of this research.

SDPD 1:

1. When you are reflecting about your curriculum process of planning, preparing and implementing your lessons, do you include any of the following?

    i. Learner-centred teaching–learning activities and strategies;

    ii. Real life problems to work through during your teaching–learning process;

    iii. Adaptability to be able to change your planning if the need or opportunity would come up;

    iv. Teaching–learning opportunities for deeper understanding by the teacher and the learners; and/or

    v. Reflection on the curriculum by the teacher and the learners within your context?

2. Please provide examples of how these five points are included in your curriculum process.

3. Please provide challenges that you encounter within your curriculum process in relation to these five points.

SDPD 2:

1. Regarding the challenges within your curriculum process that you previously identified, formulate goals for yourself that you think you might be able to achieve within the next few weeks.

    Please consider:

    i. whether these goals are equally important;

    ii. what options you have to help you to achieve these goals; and

    iii. which option(s) will help you the most to achieve these goals.

2. Now formulate your own teaching–learning goal(s), with the option(s) that will mostly assist you in achieving these goal(s).

SDPD 3:

1. Regarding the goal(s) and option(s) that you previously identified, which human and/or material resources do you have available to assist you in achieving these goal(s)?

2. How can you now go about learning more in order to address the challenges you identified in week 1-2?

3. During the following two weeks, I would like you to implement these options in your real context of planning, preparing and implementing the curriculum, in order to try and address your challenges.

<u>SDPD 4:</u>

1. Regarding the challenges within your curriculum process that you previously identified, how well were you able to address these challenges, keeping in mind:
   i.   the goal(s) and option(s) you formulated for yourself;
   ii. the resources that you identified to approach and use; and
   iii. how you went about learning more about your challenges?

2. What did you learn from this self-directed professional development intervention? And will you be able to apply it again?

3. What are the challenges that you experienced or foresee that could hinder you in applying this self-directed professional development process again in order to improve your curriculum process (curriculum as praxis)?

ADDENDUM C

POST-SELF-DIRECTED PROFESSIONAL DEVELOPMENT INTERVIEW SCHEDULE

I would like to record this interview in order to be able to listen to it again and to properly transcribe all the detail that will be discussed. Would you mind if I recorded this interview?

1. Will you please explain and elaborate on how you experienced the intervention period?
2. When you implement a lesson now, what are the roles and responsibilities of the learners in your class?
3. Explain your own process of planning, preparing and executing your lessons now after the intervention period.
4. Describe how you reflect about your teaching process, in order to adapt the way(s) in which you implement the curriculum.
5. Explain how important you, as a teacher, think it is to be a lifelong learner that stays up-to-date and informed regarding educational developments.
6. Please elaborate on what you, as a teacher, need within the 21st century to enhance your own curriculum process.

Conclusion:

Thank you dearly for your willingness to participate and to provide time for this research.

ADDENDUM D

NORTH-WEST UNIVERSITY ETHICS APPROVAL LETTER

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS
Fakulteit Opvoedkunde / Faculty Education
Privaatsak / Private Bag X6001, Potchefstroom
Suid-Afrika / South Africa 2520
T: 018 299 4656
F: 086 661 8589
http://www.nwu.ac.za

9 October 2019

To Whom It May Concern

I hereby confirm that the ethics application, as stated below, was approved at the Ethics Committee meeting of the Faculty of Education of 20 September 2018.

Ethics number: NWU-00201-18-A2

Project head: Prof E Mentz

Project team: M Verster, Prof C du Toit-Brits

Title: Enhancing teachers' curriculum as praxis: a self-directed learning capability approach

Period: 20 September 2018 – 20 September 2019

Risk level: Low

Should you have further enquiries in this regard, you are welcome to contact Prof Jako Olivier at 018 285 2078 or by email at Jako.Olivier@nwu.ac.za or Ms Erna Greyling at 018 299 4656 or by email at Erna.Greyling@nwu.ac.za .

Yours sincerely

Prof J Olivier
Chair Edu-REC

ADDENDUM E

PERMISSION LETTER FROM THE DEPARTMENT OF EDUCATION AND SPORT DEVELOPMENT

Education and Sport Development

Department of Education and Sport Development
Departement van Onderwys en Sportontwikkeling
Lefapha la Thuto le Tlhabololo ya Metshameko
NORTH WEST PROVINCE

Garona Building, Mmabatho
1st Floor, East Wing,
Private Bag X2044,
Mmabatho 2735
Tel.: (018) 388-3433
Fax.: 086-514-0126
e-mail: motlhabanej@nwpg.gov.za

OFFICE OF THE SUPERINTENDENT-GENERAL

Enq. : Dr TA Phorabatho
Tel. : 018 388 3429/3433/3071

To: Dr. Elsa Mentz
        North West University Potchefstroom Campus
        Faculty of Education

From: Mrs. S M Semaswe
        Superintendent-General

Date : 15 October 2018

PERMISSION TO CONDUCT RESEARCH: MS MARISA VERSTER

Permission is hereby granted to Ms M Verster to conduct research in the department as requested, subject to the following conditions:

- She contacts the relevant School Principals for her target schools about her request with this letter of permission.

- Considering that your research will involve both Educators and Learners, the general functionality of the school should not be compromised by the research process.

- The participation in your project will be voluntary.

- The principles of informed consent and confidentiality will be observed in strictest terms, and

- The findings of your research should be made available to the North West Department of Education and Sport Development upon request.

Best wishes

Mrs S M Semaswe
Superintendent-General

"Towards Excellence in Education and Sport Development"

ADDENDUM F

LETTER TO SCHOOL PRINCIPAL AND SCHOOL GOVERNING BODY

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom
South Africa 2520
Tel: 018 299-1111/2222
Web: http://www.nwu.ac.za

Faculty of Education
Tel: 0182994736
Fax: 0182994712
E-mail: marisa.verster@nwu.ac.za

5 April 2019

LETTER TO THE PRINCIPAL

Dear School Principal

Request for permission to conduct research in   School

I hereby request permission to do empirical research in the above mentioned school. This research might take place between September 2018 and July 2019 (specific dates will be negotiated with each school).

I am an enrolled PhD-student at the School of Professional Studies in Education, Faculty of Education at the North-West University. The title of the project is "Enhancing teachers' curriculum as praxis: a self-directed learning capability approach".

I would like to conduct this empirical research in this particular school environment as it fits the profile required by the research project, which includes teachers teaching Grade 9 learners. My research is centred on how a self-directed learning capability approach can enhance teachers' curriculum process from planning to implementing the curriculum.

If permission is granted, I would like to give an informative presentation to all the teachers in the school who teaches Grade 9 learners. The teachers will then be asked whether they would want to participate or not; where after an informed consent form will be completed for each teacher who are willing to participate.

The participating teachers will be asked to meet with me for an initial pre-intervention interview. This will be a face-to-face semi-structured individual interview of about 30 minutes to one hour. After this interview, the teachers will be asked to participate in an electronically based intervention period, which will be between three to six months. This electronic intervention will consist of structured reflections with reflective prompts, which will be posed to the teachers on a two-week basis. Therefore, every two weeks I will be in contact with the teachers, through an electronic format (e.g. WhatsApp video calling, e-mail), to gather feedback, reflections, provide support, as well as share the next prompt to focus on for the following two weeks, together with the previous ones. I will take responsibility in ensuring that the teachers will have data or airtime for these electronic communications. The intervention period will be followed by a post-intervention interview between the individual teachers and myself. This will also be a face-to-face semi-structured individual interview of about 30 minutes to one hour.

This research has been approved by the Research Ethics Committee of the Faculty of Education, North-West University (**NWU-00201-18-A2**) and the North West Department of Education and Sport Development. All the information (through participant interviews and an electronically based intervention) that is gained from the teachers will be handled confidentially and within the ethical rules of research determined by the North-West University. Aspects such as informed consent, voluntary participation and respect for confidentiality will be adhered to.

I sincerely hope you will be able to accommodate me and I thank you for your assistance in this regard.

Kind Regards,

_____

Ms Marisa Verster (PhD-student)
Tel: 018 299 4736

_____   _____

Prof Elsa Mentz   Prof Charlene du Toit-Brits
(Project leader)   (Co-project leader)
Tel: 018 299 4773   Tel: 018 299 4738

DECLARATION BY SCHOOL PRINCIPAL (For principal to keep):

By signing below, I …………………………….…………. grant permission to ms Verster to conduct research in the above mentioned school. The research study is entitled:
Enhancing teachers' curriculum as praxis: a self-directed learning capability approach.

I declare that:
  ➢ I have read this information and understand what is expected of me in the research.
  ➢ I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
  ➢ I may choose to withdraw the school from the study at any time and will not be penalised or prejudiced in any way.

Signed at (place)_____on (date) _____/_____/201_

_____   _____

Signature of principal   **Signature of witness**

_____

Ms Marisa Verster

DECLARATION BY SCHOOL PRINCIPAL (For researcher to keep):

By signing below, I …………….………………..………… grant permission to ms Verster to conduct research in the above mentioned school. The research study is entitled:
Enhancing teachers' curriculum as praxis: a self-directed learning capability approach.

I declare that:
  ➢ I have read this information and understand what is expected of me in the research.
  ➢ I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
  ➢ I may choose to withdraw the school from the study at any time and will not be penalised or prejudiced in any way.

Signed at (place)_____on (date) _____/_____/201_

_____   _____

Signature of principal   **Signature of witness**

_____

Ms Marisa Verster

Private Bag X6001, Potchefstroom
South Africa 2520
Tel: 018 299-1111/2222
Web: http://www.nwu.ac.za

Faculty of Education
Tel: 0182994736
Fax: 0182994712
E-mail: marisa.verster@nwu.ac.za

5 April 2019

LETTER TO THE SCHOOL GOVERNING BODY

Dear SGB

Request for permission to conduct research in   School

I hereby request permission to do empirical research in the above mentioned school. This research might take place between September 2018 and July 2019 (specific dates will be negotiated with each school).

I am an enrolled PhD-student at the School of Professional Studies in Education, Faculty of Education at the North-West University. The title of the project is "Enhancing teachers' curriculum as praxis: a self-directed learning capability approach".

I would like to conduct empirical research in this particular school environment as it fits the profile required by the research project, which includes teachers teaching Grade 9 learners. My research is centred on how a self-directed learning capability approach can enhance teachers' curriculum process from planning to implementing the curriculum.

If permission is granted, I would like to give an informative presentation to all the teachers in the school who teaches Grade 9 learners. The teachers will then be asked whether they would want to participate or not; where after an informed consent form will be completed for each teacher who are willing to participate.

The participating teachers will be asked to meet with me for an initial pre-intervention interview. This will be a face-to-face semi-structured individual interview of about 30 minutes to one hour. After this interview, the teachers will be asked to participate in an electronically based intervention period, which will be between

three to six months. This electronic intervention will consist of structured reflections with reflective prompts, which will be posed to the teachers on a two-week basis. Therefore, every two weeks I will be in contact with the teachers, through an electronic format (e.g. WhatsApp video calling, e-mail), to gather feedback, reflections, provide support, as well as share the next prompt to focus on for the following two weeks, together with the previous ones. I will take responsibility in ensuring that the teachers will have data or airtime for these electronic communications. The intervention period will be followed by a post-intervention interview between the individual teachers and myself. This will also be a face-to-face semi-structured individual interview of about 30 minutes to one hour.

This research has been approved by the Research Ethics Committee of the Faculty of Education, North-West University (**NWU-00201-18-A2**). All the information (through participant interviews and an electronically based intervention) that is gained from the teachers will be handled confidentially and within the ethical rules of research determined by the North-West University. Aspects such as informed consent, voluntary participation and respect for confidentiality will be adhered to.

I sincerely hope you will be able to accommodate me and I thank you for your assistance in this regard.

Kind Regards,

_____
Ms Marisa Verster (PhD-student)
Tel: 018 299 4736

_____   _____
Prof Elsa Mentz   Prof Charlene du Toit-Brits
(Project leader)   (Co-project leader)
Tel: 018 299 4773   Tel: 018 299 4738

DECLARATION BY SCHOOL SGB (For SGB to keep):

By signing below, I …………………………….…………. grant permission to ms Verster to conduct
research in the above mentioned school. The research study is entitled:
Enhancing teachers' curriculum as praxis: a self-directed learning capability approach.

I declare that:
  - ➢ I have read this information and understand what is expected of me in the research.
  - ➢ I have had a chance to ask questions to the researcher and all my questions have been adequately
    answered.
  - ➢ I may choose to withdraw the school from the study at any time and will not be penalised or
    prejudiced in any way.

Signed at (place)_____on (date) _____/_____/201_

_____   _____

Signature of SGB   **Signature of witness**

_____

Ms Marisa Verster

DECLARATION BY SCHOOL SGB (For researcher to keep):

By signing below, I …………………………….…………. grant permission to ms Verster to conduct research in the above mentioned school. The research study is entitled:

Enhancing teachers' curriculum as praxis: a self-directed learning capability approach.

I declare that:
- ➢ I have read this information and understand what is expected of me in the research.
- ➢ I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- ➢ I may choose to withdraw the school from the study at any time and will not be penalised or prejudiced in any way.

Signed at (place)_____on (date) _____/_____/201_

_____   _____

Signature of SGB   **Signature of witness**

_____

Ms Marisa Verster

NORTH-WEST UNIVERSITY ®
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: http://www.nwu.ac.za

Faculty of Education
Tel: 0182994736
Fax: 0182994712
E-mail: marisa.verster@nwu.ac.za

2018

PARTICIPANT INFORMATION AND INFORMED CONSENT FORM

Dear Participant

Request for participation in this PhD-research

I herewith wish to request your informed consent to participate in this research, which involves teachers from secondary schools in the North West Province, teaching Grade 9 learners. Before you give consent, please acquaint yourself with the information below regarding this research project.

The details of the research are as follows:

TITLE OF THE RESEARCH PROJECT:

Enhancing teachers' curriculum as praxis: a self-directed learning capability approach

PROJECT SUPERVISOR: Prof. Elsa Mentz

CO-SUPERVISOR: Prof. Charlene du Toit-Brits

ADDRESS: 11 Hoffman Street, Building C5, Potchefstroom, 2531

CONTACT NUMBER: 018 299 4773

MEMBER OF PROJECT TEAM PhD-Student: Ms. Maria Charlotte (Marisa) Verster

ADDRESS: 11 Hoffman Street, Internal box 539, Potchefstroom, 2531

CONTACT NUMBER: 018 299 4736

This study has been approved by the Research Ethics Committee of the Faculty of Education, North-West University (**NWU-00201-18-A2**) and will be conducted according to the ethical guidelines of this committee. Permission was also granted from the North West Department of Education and Sport Development as well as the school principal and the School Governing Body.

What is this research about?

The main aim of this study is to explore how a self-directed learning capability approach can enhance teachers' curriculum as praxis. In other words, we will explore the self-directed support that can assist teachers to better understand, prepare and plan for the ways in which they implement the curriculum.

The secondary aims of this study are to:

- explore the current position of teachers' curriculum as praxis in schools in North West, a province in South Africa;
- determine the current position of teachers in North West with regard to their self-directed learning capabilities;
- understand what is needed in the 21st century in terms of self-directed learning capabilities to enhance teachers' curriculum as praxis; and
- determine how teachers can be supported in utilising self-directed learning capabilities to enhance their curriculum as praxis.

Participants

Teachers teaching Grade 9 learners in schools situated within the North West Province of South Africa.

What is expected of you as participant?

You will be asked to meet with me for an initial pre-intervention interview. This will be a face-to-face semi-structured individual interview of about 30 minutes to one hour.

After this interview, you will be asked to participate in an electronically based intervention period, which will be between three to six months. This electronic intervention will consist of structured reflections with reflective prompts, which will be posed to you on a two-week basis. Therefore, every two weeks I will be in contact with you, through an electronic format (e.g. WhatsApp video calling), to gather feedback, reflections, provide support, as well as share the next prompt for you to focus on for the following two weeks, together with the previous ones you have been focusing on. I will take responsibility in ensuring that you will have data or airtime for these electronic communications.

The intervention period will be followed by a post-intervention interview between you and myself. This will also be a face-to-face semi-structured individual interview of about 30 minutes to one hour.

Benefits to you as participant

Teachers might learn how to improve their own curriculum process (curriculum as praxis) from a self-directed learning capability approach.

Risks involved for participants

Participants will not be harmed during this research process and participation will be voluntary. Any participant will be allowed to withdraw at any stage of the research, if they wish to, without any disrespect or mistreatment from the researchers.

Confidentiality and protection of identity

All the information and data gained from the participants will be kept confidential and no identities of the participants will be revealed.

(Take note that interviews cannot be handled anonymously – only confidentiality can be guaranteed but no names of any teacher will be revealed to any third party or mentioned in any research report.)

Dissemination of findings

After the study has been finalised, the guidelines for teachers to be used in order to enhance their curriculum as praxis through self-directed learning capabilities, will be disseminated to the North West Department of Education and Sport Development, the participating school principals and School Governing Bodies, as well as the teachers who participated. This will be done in the form of a formal letter which will include the guidelines.

If you have any further questions or enquiries regarding your participation in this research, please contact the researchers for more information.

Kind Regards,

_____

Ms Marisa Verster
(PhD-student)
Tel: 018 299 4736

_____   _____

Prof Elsa Mentz   Prof Charlene du Toit-Brits
(Project leader)   (Co-project leader)
Tel: 018 299 4773   Tel: 018 299 4738

DECLARATION BY PARTICIPANT (For participant to keep):

By signing below, I …………….……………….…………. agree to take part in a research study entitled:

Enhancing teachers' curriculum as praxis: a self-directed learning capability approach.

I declare that:

> ➢ I have read this information and consent form and understand what is expected of me in the research.
> ➢ I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
> ➢ I understand that taking part in this study is voluntary and I have not been pressurised to take part.
> ➢ I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
> ➢ I may be asked to leave the research process before it has finished, if the researcher feels it is in my best interests, or if I do not follow the research procedures, as agreed to.

Please contact me with the following information (please include the relevant contact information):

> ➢ E-mail: _____
>
> ➢ Phone: _____

Signed at (place)_____on (date) _____/_____/201_

_____   _____

Signature of participant   **Signature of witness**

_____

Ms Marisa Verster

DECLARATION BY PARTICIPANT (For researcher to keep):

By signing below, I ……………………………..…………. agree to take part in a research study entitled:

Enhancing teachers' curriculum as praxis: a self-directed learning capability approach.

I declare that:

- ➤ I have read this information and consent form and understand what is expected of me in the research.
- ➤ I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- ➤ I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- ➤ I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- ➤ I may be asked to leave the research process before it has finished, if the researcher feels it is in my best interests, or if I do not follow the research procedures, as agreed to.

Please contact me with the following information (please include the relevant contact information):

- ➤ E-mail: _____

- ➤ Phone: _____

Signed at (place)_____on (date) _____/_____/201_

_____   _____

Signature of participant   **Signature of witness**

_____

Ms Marisa Verster

Jackie Viljoen
Language Editor and Translator
16 Bergzicht Gardens
Fijnbos Close
STRAND 7140

Accredited member of the South African Translators' Institute
No APSTrans No. 1000017
Member of the Professional Editors' Group (PEG) No. VIL003
Member of Safrea No. SAF03316

☎ +27+21 854 5096   📱 082 783 0263   📠 086 585 3740
Postal address: 16 Bergzicht Gardens, Fijnbos Close, STRAND 7140 South Africa

DECLARATION

I hereby certify that the thesis by **MARISA VERSTER** was properly language edited but without viewing the final version.

The track changes function was used and the author was responsible for accepting the editor's changes and for finalising the reference list.

Title of thesis:

Enhancing teachers' curriculum as praxis: a self-directed learning capability approach

The editor did not write or rewrite any part of the thesis on behalf of the client, including passages that may have been plagiarised. The academic content is the sole responsibility of the client as author of the work. The editor could not and did not test definitively for plagiarism, nor is there any explicit or implicit guarantee that the content that was edited contained no material used without consent. The editor accepts no responsibility for any failure on examination of the thesis by the university.

JACKIE VILJOEN
Strand
South Africa
14 November 2019