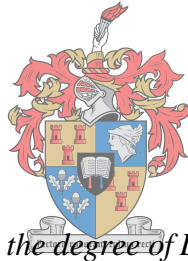


Variance in employee engagement among public school teachers in the Western Cape Province: An exploratory study

by
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*Dissertation presented for the degree of Doctor of Philosophy in the
Faculty of Economic and Management Sciences at
Stellenbosch University*

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December 2018

DECLARATION

By submitting this dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Nicola Vermooten

December 2018

DEDICATION

I dedicate this dissertation to my parents, Theuns and Ronel van der Westhuizen.

I am grateful to my parents for giving me the greatest gift I could ever receive:

Instilling in me the value of education from an early age.

ABSTRACT

In 2011, the National Planning Commission identified poverty and inequality as the most significant burdens facing South Africa. Today, this reality remains unchanged. Abject poverty and high levels of inequality are still noticeable in many aspects of the South African society. Based on a review of the extant literature, the researcher contends that the provision of quality education for all South Africans offers a long-term, sustainable solution to these challenges, especially in public schools. Regrettably, the quality of basic education in South Africa engenders concern.

Even though multiple factors contribute to the efficiency and performance of an education system, the researcher claims that teacher quality is one of the most salient determinants. She proposes that well-functioning teachers, who are able and motivated to perform their job optimally, are required to provide quality basic education for all South Africans. For this reason, the study was intended to gain an in-depth understanding of the engagement phenomena among public school teachers.

A mixed-methods research design was used to guide the study. It comprised of a qualitative phase (i.e. Parts 1 and 2) and a quantitative phase (i.e. Part 3). During Part 1 of the qualitative phase, initial interviews were conducted with 37 teachers from fee schools (n = 20) and no-fee schools (n = 17) in the Western Cape Province to identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement. During Part 2 of the qualitative phase, follow-up interviews were conducted with 28 teachers from fee schools (n = 14) and no-fee schools (n = 14) in the Western Cape Province to explore the relational dynamics that exist among the identified antecedents. In addition, the researcher enquired about the stability of the perceived causal relationships (i.e. direction and intensity) and teachers' level of engagement (i.e. within-person variance) over time during the follow-up interviews.

Based on the qualitative results and a review of the extant literature, a structural model emerged, which explained public school teachers in the Western Cape Province's experience with the engagement phenomenon. A self-report web-based survey was completed by 353 teachers from fee schools (n = 321) and no-fee schools (n = 31) in the Western Cape Province during the quantitative phase to evaluate the emerging structural model¹. The web-based survey comprised of valid and reliable instruments that were selected based on the antecedents that were identified during Part 1 of the qualitative phase. The psychometric properties of these instruments were determined using item

¹ Participants were not forced to respond to each question in the web-based survey. The demographic and employment information of participants in the quantitative phase is, therefore, presented based on the responses obtained.

analysis, confirmatory factor analysis and exploratory factor analysis. The emerging structural model was evaluated using variance-based structural equation modelling.

The study made a meaningful contribution to the extant body of knowledge regarding employee engagement. It offers valuable insight into the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province, as well as the relational dynamics that exist among these antecedents. Based on the results of the study theoretical conclusions were made to guide future research with regard to employee engagement, and managerial implications were discussed to inform the development and implementation of human resource practices and interventions that may foster employee engagement among all public school teachers.

OPSOMMING

In 2011, het die Nasionale Beplanningskommissie armoede en ongelykheid geïdentifiseer as die grootste uitdagings wat Suid-Afrika in die gesig staar. Vandag is dit steeds 'n werklikheid. Volslae armoede en hoë vlakke van ongelykheid is nog steeds sigbaar op verskeie terreine van die Suid-Afrikaanse samelewing. Op grond van 'n oorsig van die bestaande literatuur voer navorser aan dat die voorsiening van onderwys van 'n hoë gehalte aan alle Suid-Afrikaners 'n langtermyn, volhoubare oplossing bied vir die bogenoemde uitdagings, veral in openbare skole. Ongelukkig is die gehalte van basiese onderwys in Suid-Afrika 'n bron van kommer.

Hoewel daar verskeie faktore is wat tot die doeltreffendheid en prestasie van 'n onderwysstelsel bydra, verklaar navorser dat die gehalte van onderwysers een van die belangrikste voorspellers is. Onderwysers wat goed funksioneer en oor die vermoë en motivering beskik om hul werksverpligtinge optimaal uit te voer, word dus benodig om onderwys van 'n hoë gehalte aan alle Suid-Afrikaners te bied. Om hierdie rede was die doel van die studie om 'n behoorlike begrip te kry van die verskynsel van werknemer-begeesting onder onderwysers in openbare skole.

'n Gemengde-metodes-ontwerp is gebruik om die studie te rig. Dit het uit 'n kwalitatiewe fase (d.i. Dele 1 en 2) en 'n kwantitatiewe fase (d.i. Deel 3) bestaan. Tydens Deel 1 van die kwantitatiewe fase is aanvanklike onderhoude met 37 onderwysers van fooi-skole ($n = 20$) en geen-fooi-skole ($n = 17$) in die Wes-Kaap gevoer om die opvallendste kontekstuele, organisatoriese, werkverwante en individuele voorspellers van variansie in werknemer-begeesting te bepaal. Tydens Deel 2 van die kwalitatiewe fase is opvolgonderhoude met 28 onderwysers van fooi-skole ($n = 14$) en geen-fooi-skole ($n = 14$) in die Wes-Kaap gevoer om die verband tussen die geïdentifiseerde voorspellers te ondersoek. Daarbenewens is opvolgonderhoude gevoer om vas te stel hoe stabiel die geïdentifiseerde verbande (d.i. rigting en intensiteit) en onderwysers se vlak van begeesting (d.i. intrapersoonlike variansie) oor tyd is.

Op grond van die kwalitatiewe resultate en 'n oorsig van die bestaande literatuur het 'n strukturele model na vore gekom wat onderwysers in openbare skole in die Wes-Kaap se ervaring van die verskynsel van werknemer-begeesting verduidelik. 'n Self-verslag webgebaseerde opname is deur 353 onderwysers van fooi-skole ($n = 321$) en geen-fooi-skole ($n = 31$) in die Wes-Kaap voltooi gedurende die kwantitatiewe fase om die strukturele model te evalueer². Die webgebaseerde opname

² Deelnemers was nie gedwing om op elke vraag in die webgebaseerde opname te antwoord nie. Om hierdie rede was die demografiese en werksinligting inligting van deelnemers in die kwantitatiewe fase gerapporteer op grond van die antwoorde wat ontvang was.

het bestaan uit geldige en betroubare instrumente wat gekies is op grond van die voorspellers wat gedurende Deel 1 van die kwalitatiewe fase geïdentifiseer was. Die psigometriese eienskappe van hierdie instrumente was deur middel van item-analise, bevestigende faktorontleding en ondersoekende faktorontleding bepaal. Die strukturele model is deur middel van variansie-gebaseerde strukturele vergelykingsmodellering geëvalueer.

Die studie het 'n betekenisvolle bydrae gemaak tot die beskikbare kennis oor werknemer-begeesting. Dit bied waardevolle insig in die opvallendste kontekstuele, organisatoriese, werkverwante en individuele voorspellers van variansie in werknemer-begeesting onder onderwysers in openbare skole in die Wes-Kaap, asook die verband tussen hierdie voorspellers. Op grond van die resultate van die studie is teoretiese gevolgtrekkings gemaak om toekomstige navorsing oor werknemer-begeesting te rig, en praktiese implikasies bespreek om die ontwikkeling en toepassing van menslikehulpbron-praktyke en ingrypings wat werknemer-begeesting onder alle onderwysers in openbare skole kan bevorder, toe te lig.

ACKNOWLEDGEMENTS

I would like to extend my sincere appreciation to the following individuals and institutions:

Prof. Malan (supervisor) and Dr. Boonzaier (co-supervisor): For your reassurance and mentorship throughout the study. I learnt much more than I could have ever anticipated.

Prof. Kidd: For assisting me with the statistical analyses that were performed as part of the quantitative phase of the study.

Dr. Franken and the Graduate School of Economic and Management Sciences: For providing me with the opportunity to conduct the study, and a platform to identify and secure the support and resources that were needed for its successful completion.

Stellenbosch Institute of Advanced Studies: For its financial contribution to the successful completion of the study.

HB & MJ Thom Trust: For its financial contribution to the successful completion of the study.

Western Cape Department of Education: For recognising the value of the study, and allowing me to conduct it in public schools across the Western Cape Province.

Principals and teachers from participating public schools: For their willingness to participate in the study.

Husband, family and friends: For your patience, unwavering support and encouragement throughout the study. I could not have done it without you.

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ACRONYMS AND ABBREVIATIONS

AGFI	Adjusted Goodness-of-Fit Index
ANC	African National Congress
ART	Affinity Relationship Table
ASGISA	Accelerated and Shared Growth Initiative for South Africa
AVE	Average Variance Extracted
BEE	Black Economic Empowerment
CAPS	Curriculum and Assessment Policy Statements
CB-SEM	Covariance-Based Structural Equation Modelling
CFA	Confirmatory Factor Analysis
CTLI	Cape Teaching and Leadership Institute
COR	Conservation of Resources
DESC	Departmental Ethics Screening Committee
EFA	Exploratory Factor Analysis
EQ-i	Emotional Quotient Inventory
GDP	Gross Domestic Product
GEAR	Growth, Employment and Redistribution
GFI	Goodness-of-Fit Index
GMA	General Mental Ability
HSRC	Human Sciences Research Council
HTMT	Heterotrait-Monotrait
IQA	Interactive Qualitative Analysis
IQMS	Integrated Quality Management System
IRD	Inter-Relationship Diagram
JCM	Job Characteristics Model
JD-R	Job Demands-Resources
LMX	Leader-Member Exchange
MRTEQ	Minimum Requirements for Teacher Education Qualifications
MSCEIT	Mayer-Salovey-Caruso Emotional Intelligence Test
MSEM	Multi-Group Structural Equation Modelling
MTSF	Medium-Term Strategic Framework
NCS	National Curriculum Statement
NDP	National Development Plan
NGP	New Growth Path
NPC	National Planning Commission
NSC	National Senior Certificate
NSES	National School Effectiveness Study
OBE	Outcomes-Based Education
OCDQ	Organisational Climate Descriptive Questionnaire

OHI	Organisational Health Inventory
PCA	Principal Components Analysis
PIRLS	Progress in International Reading Literacy Study
PLS	Partial Least Squares
RDP	Reconstruction and Development Programme
REC	Research Ethics Committee
RMSEA	Root Mean Square Error of Approximation
RNCS	Revised National Curriculum Statement
SACE	South African Council of Educators
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SADC	Southern African Development Community
SID	Systems Influence Diagram
SOS	Stress-as-Offense-to-Self
SREIT	Self-Report Emotional Intelligence Test
SUEIT	Swinburne University Emotional Intelligence Test
TIMSS	Trends in International Mathematics and Science Study
UWES	Utrecht Work Engagement Scale
VB-SEM	Variance-Based Structural Equation Modelling
W-HR	Work-Home Resources
WKOD	Wes-Kaapse Onderwysdepartement

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CHAPTER 1: THE CHALLENGE FACING BASIC EDUCATION IN SOUTH AFRICA

1.1. Introduction

In 2011, the National Planning Commission (NPC) identified poverty and inequality as the most significant burdens facing South Africa. Today, this reality remains unchanged. Abject poverty and high levels of inequality are still noticeable in many aspects of the South African society (World Bank, 2018a).

Persisting challenges of poverty and inequality in South Africa have proven detrimental to the quality and sustainability of South Africa's democracy (Bhorat & Van Der Westhuizen, 2012; De Kadt & Hudson, 2014). These challenges have corrupted politics, hindered economic growth and stifled social mobility (Kings, 2014). It is, therefore, imperative that all South Africans actively work toward finding a long-term, sustainable solution to alleviate poverty and remedy past imbalances.

There are no easy or quick solutions to the challenges of poverty and inequality in South Africa. Research has demonstrated that the distribution of educational attainment is closely correlated with the prevalence of poverty and inequality among societies. To take a case in point, analyses conducted by Checchi and Van De Werfhorst (2014) on cross-national comparative data of cohorts born between 1950 and 1981 showed that educational reforms influence the distribution of the quality, as well as the quantity, of education offered to members of a particular society. The distribution of skills and educational attainment, in turn, influences the income distribution among of its members. This suggests that educational policies may help to address income inequality among societies. In consideration of this, the researcher contends that the provision of quality basic education for all South Africans represents an avenue worth pursuing, especially in public schools. She proposes that it may offer a long-term, sustainable solution to the above-mentioned challenges.

Regrettably, the quality of basic education in South Africa engenders concern. Even though multiple factors contribute to the efficiency and performance of an education system, the

researcher claims that teacher quality is one of the most salient determinants of the efficiency and performance of any education system. As Schleicher (2011, p. 202) stated, “The quality of an education system cannot exceed the quality of its teachers and their work”. In accordance with Schleicher and other researchers (e.g. Fouché, Rothmann & Van Der Vyver, 2017; Rothmann & Fouché, 2018), the researcher proposes that well-functioning teachers, who are able and motivated to perform their job optimally, are required to provide quality basic education for all South Africans.

Non-optimal levels of engagement among teachers hold inevitable consequences for the quality of basic education offered in many public schools across South Africa. For this reason, the study is intended to develop and evaluate an exploratory model of the most salient contextual, organisational, job and individual antecedents of variance in job performance among public school teachers in South Africa, specifically the Western Cape Province.

The purpose of Chapter 1 will be to contextualise the study. The researcher claims that it is necessary first to understand the historical background of South Africa concerning its struggle for democracy to realise this objective. It is, therefore, necessary to provide a brief overview of the developmental programmes that have been proposed by the government to alleviate poverty and remedy past imbalances.

1.1.1. Historical background of South Africa

In 2018, South Africa celebrated 24 years since the dawn of its democratic dispensation. The researcher is of the opinion that this historic milestone presented an opportunity for all South Africans to reflect on the progress that has been made and the challenges that lie ahead.

Following the first democratic election on the 27th of April 1994, the government started working toward reconciliation and social cohesion among all South Africans. Past laws were repealed, and the *Bill of Rights of the Constitution of the Republic of South Africa (Act No. 108 of 1996)* was introduced (Republic of South Africa, 1996a), to achieve this objective. The purpose of this legislative framework was to guarantee that all South Africans enjoy the same socio-economic and basic human rights by re-ordering the social and legal reality of South Africa.

In addition to the *Bill of Rights (Act No. 108 of 1996)* (Republic of South Africa, 1996a), the government introduced a series of developmental programmes to alleviate poverty and remedy

past imbalances. The Reconstruction and Development Programme (RDP) signified the cornerstone of government development policy. Initially launched as part of the African National Congress' (ANC) election platform in 1994, this socio-economic policy framework was aimed at the fundamental transformation of South Africa through the eradication of poverty and inequality, which were evident in nearly all aspects of the South African society during the Apartheid-era (Reitzes, 2009).

The RDP comprised of various proposals and strategies that were grouped into five primary policy programmes by the RDP White Paper. These programmes were not only intended to redress imbalances in living conditions. They also involved employment generation, cultural and educational programmes, human resource development and institutional reform (Adelzadeh & Padayachee, 1994).

Lamentably, the objectives of the RDP were not achieved. Even though statistics released by the government suggested otherwise, the scope of change represented by many of these statistics is questionable. Compared to government claims, the reality on the ground signified only modest improvements. The standard of housing, water delivery and healthcare improvements were especially problematic (Reitzes, 2009). According to Visser (2004, p. 7), the RDP became “a wish list for too many people”.

The failure to achieve the objectives of the RDP was attributed to a number of constraints that the government encountered. These constraints ranged from the lack of sufficiently skilled leaders to unsuccessful policy coordination and implementation methods (Harsch, 2001). Furthermore, even though its objectives were clearly outlined, the RDP was also criticised for the fact that it did not stipulate how objectives should be attained (Terreblanche, 2002).

Following this, South Africa saw its first major currency crisis in 1996, when the South African Rand depreciated by more than 25 percent (Visser, 2004). In an attempt to calm domestic capital and foreign currency markets, the government replaced the RDP with the Growth, Employment and Redistribution (GEAR) strategy. With the introduction of this macroeconomic policy framework came an “overall shift in focus from aggressively tackling social concerns to relying on orthodox macroeconomic remedies” (Harsch, 2001, p. 13). Redistribution through growth replaced growth through redistribution. The GEAR strategy aimed to cultivate a competitive, rapidly growing economy by tightening monetary and fiscal discipline, reprioritising public expenditures, increasing foreign and domestic investment, and

decreasing barriers to international trade. The government avowed that achieving its objectives would cultivate a suitable economic climate for private investment, which, in turn, would translate into high levels of economic growth (Terreblanche, 1999).

The GEAR strategy was moderately successful in achieving some of its macroeconomic objectives. South Africa saw improvements in macroeconomic stability, reporting and accountability. Nevertheless, despite these achievements, many South Africans remained trapped by the vicious cycle of poverty and inequality (Visser, 2004). Its failure to address pressing social challenges in South Africa was primarily attributed to the fact the GEAR strategy did not set explicit redistributive targets (Van Der Walt, 2000).

In 2005, the government replaced the GEAR strategy with the Accelerated and Shared Growth Initiative for South Africa (ASGISA). This developmental programme was intended to accelerate economic growth and wealth redistribution in South Africa (Gentle, 2011). Although it was initially well-received, enthusiasm regarding the ASGISA was short-lived. Soon after its introduction, the ASGISA was replaced by the New Growth Path (NGP) (Nattrass, 2011).

In 2010, President Jacob Zuma introduced the NGP in acknowledgement of the fact that poverty, inequality and structural unemployment had become exacerbated over time (Gentle, 2011). Along the same lines as the previously mentioned developmental programmes, the NGP also envisioned endeavours to accelerate economic growth in South Africa in ways that would rapidly alleviate poverty, remedy past imbalances and reduce unemployment. Even though the NGP offered a comprehensive analysis of the economic challenges in South Africa, it did not make appropriate policy recommendations (Nattrass, 2011).

The National Development Plan (NDP) was introduced in the following year. The government proclaimed that the NDP would function as a roadmap to guide South Africa toward the eradication of poverty and inequality by 2030. This economic policy framework declared that the government would strive to create a society “where no one is hungry, where everyone is able to go to school and further their studies if they wish, where work is available, where everyone is making a contribution, because each person has been provided with what they need to reach their full potential” (Nndwamato, 2014, p. 16).

While the objectives outlined in the NDP appeared promising at first glance, Coleman (2013) cautioned that many aspects contained in this economic vision were troublesome upon closer scrutiny. It was, therefore, to be expected that nearly eight years after its introduction, the

implementation of the NDP is proving problematic. Despite the introduction of the Medium-Term Strategic Framework (MTSF) in 2014, the government is struggling to ensure policy coordination across government plans to alleviate poverty and remedy past imbalances (Van Niekerk, 2015).

The simple exercise of skimming through the above-mentioned developmental programmes indicates that poverty and inequality have been prominent in the consciousness of the government since the dawn of the democratic dispensation. However, although the objectives outlined in these programmes suggest that it is striving toward betterment, the efforts put forth by the government have been to little avail due to challenges associated with policy coordination and implementation methods. The researcher recommends that South Africa must build better bridges between policy and implementation.

While there have been moderate changes in the composition of poverty and inequality, it remains an impediment to South Africa's prosperity (Bhorat & Van Der Westhuizen, 2012; De Kadt & Hudson, 2014). The researcher contends that the persisting nature of poverty and inequality in South Africa is not inevitable. She advises that all South Africans should, therefore, actively work toward finding a long-term, sustainable solution to these challenges. Voicing discontent will no longer suffice.

1.1.2. The extent of poverty and inequality in South Africa

South Africa is considered one of the most unequal economies across the globe. Despite politicians preaching socio-economic justice for all South Africans, in practice, it remains a dual economy (World Bank, 2018a). Recently published statistics indicate that South Africa has a Gini coefficient³ of 0.65 in terms of expenditure (i.e. per capita, not including taxes) and 0.69 in terms of income data (i.e. per capita, including social grants, salaries and wages) - worse than those of many developing countries, such as Brazil, the Bahamas and Jamaica (World Bank, 2018b).

³ The Gini coefficient, also referred to as the Gini ratio or the Gini index, is an assessment of the statistical dispersion, which represents the income distribution of a country's population. Notably, it is an assessment of income distribution - not wealth distribution. Household wealth is exceptionally difficult to assess. The Gini coefficient is, therefore, typically used to measure equality. The Gini coefficient ranges from 0.00, which signifies complete equality, and 1.00, which signifies complete inequality (Gini, 1912).

The ever-increasing socio-economic divide between the rich and the poor can be attributed to South Africa's failed trickle-down economic model (Kings, 2014). The comparative rate of household consumption, as well as income, between the rich and the poor remains stagnant. The wealthiest 10 percent of South Africans accounts for 55 percent of household income, while the poorest 50 percent of the population's percentage of household income is only 8 percent (World Bank, 2018a).

Statistics released by Statistics South Africa in 2015 painted an equally alarming picture of the extent to which abject poverty and high levels of inequality are still entrenched in the South Africa society. It revealed that an estimated 21.7 percent of South Africans live in extreme poverty, unable to sustain basic nutritional requirements; 37 percent sacrifice food items for non-food items (e.g. cell phone airtime and transportation); and 53.8 percent can afford food and non-food items, surviving on less than R 779 per month (Nicolson, 2015). The researcher infers that these statistics indicate that the challenges of poverty and inequality in South Africa are more concerning than arbitrary international rules of thumb imply, as the majority of South Africans are struggling to make ends meet.

1.1.3. Why poverty and inequality in South Africa matters

The *Bill of Rights (Act No. 108 of 1996)* stipulates that all South Africans have the democratic right to equality (Republic of South Africa, 1996a). In a society marked by equality, "Whether a person is born a boy or a girl, black or white, in a township or leafy suburb, to an educated and well-off parent or otherwise, should not be relevant to reaching his or her full potential. Ideally, only the person's effort, innate talent, choices in life, and, to an extent, sheer luck, would be the influencing forces" (Keeton, 2014, p. 27). However, as illustrated by the foregoing discussion, the researcher claims many South Africans are still denied this basic human right. Due to the ever-growing socio-economic divide between the rich and the poor, these individuals remain disproportionately disadvantaged in terms of the opportunities they have to reach their full potential. Such differences in opportunities are morally unjustifiable.

Beyond the fact that poverty and inequality are moral issues, they have a number of practical implications for quality of life. As an illustration, many South Africans are denied access to basic services due to these challenges. While the government claims that it has consistently increased access to basic services since 1993, the 2011 Census revealed that significant segments of the population still did not have access to basic services. Moreover, the quality of

basic services offered in South Africa was highly variable (Statistics South Africa, 2012). The 2014 General Household Survey demonstrated that many households are becoming increasingly dissatisfied with the quality of basic services. Compared to 2005 (76 percent), there has been a 15 percent decline in household satisfaction with the quality of basic services to 61 percent in 2014 (Statistics South Africa, 2015).

Another challenge associated with poverty and inequality is unemployment. In 2015, the Job Opportunities and Unemployment in the South African Labour Market Report showed that the government had stimulated job creation. Compared to the previous financial year (44 611 vacancies), 4 390 additional vacancies were created. Although this signified an increase of nearly 10 percent in the number of vacancies advertised in 2013, it was no match for the high unemployment rate of 25.2 percent (Department of Labour, 2015). At present, the South African labour market remains fragile. The unemployment rate increased to 27.7 percent during the third quarter of 2017 (World Bank, 2018a).

It is important to mention that the challenge of unemployment is not only a matter of constraints in opportunities for employment. There is also a skills mismatch in the South African labour market, especially in terms of semi-skilled and skilled occupations (Department of Labour, 2015). Due to poverty and inequality, many South Africans still do not have access to higher education. “This serves as a major barrier to getting sufficient levels of education to participate actively in the semi-skilled and skilled labour market” (World Bank, 2018a, p. 19), which, in turn, negatively influences their career trajectories.

Nonetheless, irrespective of the reason for the high unemployment rate, during the past two decades it has hindered economic growth in South Africa. Between 2004 and 2007, the Gross Domestic Product (GDP) remained relatively stable at 5 percent, when the negative effects of unemployment were compounded, less than a decade into the 21st century, by the global economic crisis. Following the economic crisis, South Africa slowly regained momentum. However, during the first quarter of 2017, its GDP once again plunged to a disappointing 0.7 percent. The sharp decline in the GDP was exacerbated by domestic challenges, including weak investment sentiment amid policy uncertainty (Taborda, 2018).

The researcher contends that each of the above-mentioned challenges signifies a significant cause of social tension in South Africa, which threatens its democratic ideals. She suggests that discontent with access to adequate basic services, high unemployment rates and sluggish

economic growth have sparked increased violence among South Africans. In 2014, the Global Peace Index Report ranked South Africa 122nd out of 162 countries in the Economist Intelligence Unit's Democracy Index, due to external and organised domestic threats to peace. The report stated, "At the heart of the issue is poverty and persistent inequality" (Institute for Economics and Peace, 2014, p. 31). Comparable results were reported in 2018 (Institute for Economics and Peace, 2018).

In an attempt to calm growing discontent with the practical implications associated with poverty and inequality, the government has opted to increase social welfare consistently. As state expenditure on social welfare continues to increase, it has become a worrying issue within the economic policy terrain. Frankson (2015) reported that the social assistance programme extended from covering 2.7 million South Africans in 1994 to 12 million in 2014, consuming nearly 3.1 percent of the GDP. Even more astounding, the beneficiaries of the child support grant increased from less than 22 000 in 1998 to more than 11.7 million in 2014. The beneficiaries of the child support grant increased to 12.1 million in 2017 (Van Wyk, 2017). While there is value in a social welfare system, the researcher proposes that its wrongful implementation has proven crippling. She contends that social welfare will not alleviate poverty and remedy past imbalances, without growth in employment.

The Black Economic Empowerment (BEE) programme signifies another strategy that the government has implemented to calm growing discontent with the practical implications associated with poverty and inequality. This programme was launched in 2001 to redress imbalances by removing obstacles to employment that were still faced by previously disadvantaged South Africans. However, it has enriched the lives of only a handful of previously disadvantaged South Africans due to ineffective implementation methods. According to Anthea Jeffrey, the Head of Policy Research at the Institute of Race Relations, the BEE programme is wrought with corruption, fraud and misrepresentation (Jeffery, 2017).

With reference to the foregoing discussion, it is evident that the practical implications of poverty and inequality in South Africa have proven detrimental to the quality and sustainability of its democracy (Bhorat & Van Der Westhuizen, 2012; De Kadt & Hudson, 2014). As mentioned, it has corrupted politics, hindered economic growth and stifled social mobility (Kings, 2014).

There are no easy or quick solutions to the challenges of poverty and inequality in South Africa. Its practical implications are highly interrelated, thereby creating a vicious cycle that traps countless South Africans for their entire life. These handicaps are often passed on from one generation to the next. To eradicate poverty and inequality, the researcher suggests that it is necessary to consider where this vicious cycle begins and where it ends.

The association between education, poverty and inequality is a widely researched subject among economists and sociologists (e.g. Peracchi, 2006; Rodríguez-Pose & Tselios, 2009). As mentioned, Checchi and Van De Werfhorst (2014) found that educational reforms influence the distribution of skills and educational attainment influences the income distribution among members of a particular society. In view of this, the researcher contends that the provision of quality basic education for all South Africans offers a long-term, sustainable solution to alleviate poverty and remedy past imbalances. As Blanden and Machin (2004) explained, education provides greater economic opportunities, particularly among the poor, as it imparts the knowledge, skills and abilities that individuals require to secure jobs, enter the labour market and excel in all spheres of life.

1.1.4. Basic education in South Africa

Under the new democratic dispensation, South Africa has seen a tremendous increase in the demand for primary and secondary education. The Department of Basic Education has achieved considerable success in meeting the increased demand for primary and secondary education (Taylor, Fleisch & Shindler, 2008). In 2013, the Success by Numbers Report revealed that student access to primary education for six-year-olds improved from 49.1 percent in 1996 to 96.1 percent in 2011. By 2013 the right of basic education had been extended to more than 12 million South Africans in approximately 1 486 private schools and 24 365 public schools (Department of Basic Education, 2013b). Nonetheless, despite significant increases in access to primary and secondary education, the South African education system has failed to alleviate poverty and inequality.

Chiswick (1968) warned that the provision of education for all might initially increase inequality among populations. However, over time it is expected to reduce the challenges of poverty and inequality. Regrettably, after more than two decades, the long-term effects of significant increases in access to primary and secondary education are not observable in South Africa. Even though Angie Motshekga, the Minister of Basic Education, announced that the

South African education system “is more equitable and pro-poor than it was before 1994” (Department of Basic Education, 2012, p. 1), it appears to be exacerbating the socio-economic divide between the rich and the poor rather than mitigating it.

In recent years, the quality of basic education in South Africa has been under intensive scrutiny. Despite far-reaching policy innovations since the dawn of the democratic dispensation, Motshekga remarked that the diagnostic test of the NDP showed that more than 80 percent of public schools are still “dysfunctional”, specifically in disadvantaged communities (Wilkinson, 2015). While many South Africans outside policy circles may not fully comprehend the extent to which public schools are underperforming, the researcher anticipates that policymakers are well attuned with the long-standing nature of this challenge.

The quality of basic education offered in many public schools across South Africa has stifled advances in student achievement and progression. Jansen (2018) remarked that the annual National Senior Certificate (NSC) examination results are misleading, as it does not account for students who do not progress to Grade 12. Only 50 percent of students who enter into the South African education system, progress to Grade 12. Of these students, 40 percent pass Grade 12, and a mere 12 percent qualify for tertiary education. The remaining 50 percent of 18 to 24-year-olds are at a distinct economic disadvantage. It is probable that these individuals will remain unemployed for sustained periods, if not permanently. Notably, the 40 percent of students, who pass Grade 12, are not guaranteed of a prosperous future. Many of these students have not received the preparation that individuals require to secure jobs, enter the labour market and excel in all spheres of life (Spaull, 2013).

In 2014, the Global Information Technology Report, which ranks the quality of basic education offered in 148 countries, positioned South Africa 146th, above Yemen and Libya (Bilbao-Osorio, Dutta & Lanvin, 2014). Along the same lines, the Global Information Technology Report, published in 2016, positioned South Africa 137th out of 139 countries. Even more astounding, in terms of mathematics and science education, South Africa was positioned in the last place (Baller, Dutta & Lanvin, 2016). Other cross-national assessments have consistently reported similar levels of educational achievement in South Africa.

In 2002, the Trends in International Mathematics and Science Study (TIMSS) indicated that South Africa had not made any improvement in Grade 8 mathematics and science education from 1995 to 2002. In response to these statistics, policymakers ruled that international Grade

8 tests were too hard for Grade 8 students from South Africa. Consequently, in 2002, Grade 8 and Grade 9 students wrote Grade 8 tests and, in 2011, only Grade 9 students wrote Grade 8 tests. Even though TIMSS data showed a slight improvement in mathematics and science performance of Grade 9 students from 2002 to 2011, it was primarily attributed to the exceedingly low baseline of performance that was recorded in 2002 (Reddy et al., 2012).

What was most disconcerting, despite the above-mentioned adjustments South Africa still achieved the lowest level of educational achievement in mathematics and science. Grade 9 students from South Africa performed two to three grade levels lower than Grade 8 students from other middle-income countries. Thirty-two percent of Grade 9 students performed worse than guessing on multiple-choice test items, and 76 percent of students did not have a basic understanding of basic graphs, decimals, operations and whole numbers. As opposed to signalling hope, the post-improvement level of mathematics and science performance was a cause for concern (Spaull, 2013). Similar results were reported in 2015 (Reddy et al., 2016).

In 2006, the Progress in International Reading Literacy Study (PIRLS) measured the educational achievement of Grade 5 students from 45 countries, including other middle-income countries, such as Macedonia, Morocco and Indonesia. Grade 5 students from South Africa achieved the lowest score, even though the majority of other countries assessed their Grade 4 students. Seventy-five percent of Grade 5 students from South Africa were unable to demonstrate the basic reading skills required by the Low International Benchmark (Spaull, 2013). Trong (2010) cautioned that Grade 4 students, who fail to meet the requirements of the Low International Benchmark, might not learn how to read.

In consideration of the results obtained by PIRLS 2006, South Africa chose to participate in the 2011 prePIRLS⁴. Although Grade 4 students from South Africa and Botswana performed at a similar level, PIRLS data indicated that these students lagged 2.9 years behind students from Columbia (Trong, 2010). It should, therefore, come as no surprise that students from South Africa once again achieved the lowest score in 2016 (Howie et al., 2016).

Upon comparing educational achievement in South Africa to poorer African countries, the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) found that additional financial resources do not necessarily equate to better outcomes. Data

⁴ PrePIRLS is an easier assessment that targets underachieving developing countries.

gathered by the SACMEQ in 2000 and 2007 respectively suggested that Grade 6 students from South Africa performed below average in mathematics and reading when compared to other African countries - despite having better access to resources, fewer students per teacher and more qualified teachers (Spaull, 2013). Spaull and Taylor (2012) reported similar results. Spaull and his colleague found that Grade 6 students from South Africa performed far worse than Grade 6 students from Kenya despite taking higher rates of dropout and non-enrolment in Kenya into account.

Still more troubling, the success and failure of students in South Africa are closely correlated with their socio-economic background. Among the relatively few students who progress through the South African education system, success rates are dramatically skewed toward the top 20 percent wealthiest public schools. By the age of eight, students in the remaining 80 percent of public schools already face substantial learning difficulties. The National School Effectiveness Study (NSES) demonstrated that Grade 5 students in historically disadvantaged public schools typically perform considerably worse than Grade 3 students in historically advantaged public schools (Taylor, 2011). It appears that the quality of basic education offered in many public schools constrains countless South Africans' path out of poverty and inequality.

The foregoing discussion indicated that the primary challenge associated with the South African education system is not a matter of access to primary and secondary education. It relates to the quality of basic education offered in many public schools. Compared to developed, as well as developing, countries, the quality of basic education offered in South Africa is lagging behind. Evoh (2007) claimed that the South African education system is grossly inefficient and severely underperforming.

It is tempting to blame the lack of funding for weak educational achievement in South Africa. However, research suggests otherwise. In 2015, Nhlanhla Nene, the then Minister of Finance, announced that more than R 640 billion would be invested in the improvement of basic education during the next three years. In 2018, Malusi Gigaba, the previous Minister of Finance, proceeded to allocate R 246.8 billion toward basic education. This represented 16.5 percent of the consolidated budget - matching the percentage of total state expenditure on basic education of developed countries, such as the United States of America and the United Kingdom (National Treasury, 2018). Considering that this is equal to past state expenditure on basic education, it is apparent that the return on this substantial financial investment is lacking. The researcher suggests that it is, therefore, necessary to ask, "Why, despite this substantial

financial investment, is the Department of Basic Education unable to provide quality basic education for all South Africans - a fundamental human right?"

The complexity associated with the task of improving the functioning of an education system is rightly reflected throughout education literature. In 2007, McKinsey & Company published the *How the World's Best Performing School Systems Come Out on Top Report*, which studied common attributes of excellent education systems. By comparing 25 education systems from across the globe, including the ten top-performing education systems, the report demonstrated that teacher quality is the most salient determinant of the efficiency and performance of any education system (McKinsey & McKinsey, 2007). Even though there is little agreement among researchers regarding the characteristics teachers should possess, research has shown support for this notion in the context of developed (e.g. Hanushek, Kain, O'Brien & Rivkin, 2005; Wayne & Youngs, 2003), as well as developing (e.g. Glewwe, Grosh, Jacoby & Lockheed, 1995; Tan, Lane & Coustere, 1997), countries.

Schleicher (2011, p. 202) claimed that, "The quality of an education system cannot exceed the quality of its teachers and their work". The researcher acknowledges that multiple factors contribute to the efficiency and performance of an education system. Even so, she claims that teacher quality is one of the primary driving forces behind the efficiency and performance of the South African education system. The study will, therefore, direct attention to the salience of teacher performance.

As pointed out, in accordance with other researchers (e.g. Fouché et al., 2017; Rothmann & Fouché, 2018), the researcher proposes that well-functioning teachers, who are able and motivated to perform their job optimally, are required to provide quality basic education for all South Africans. The ineffective management of this invaluable human resource is, however, a well-publicised problem in South Africa (Mosoge & Pilane, 2014). As opposed to nurturing educational achievement, job performance among teachers in many public schools across South Africa has proven unsatisfactory. Based on the above-mentioned TIMSS, PIRLS and SACMEQ data, challenges associated with teacher quality calls for urgent attention.

1.1.5. Challenges associated with teacher quality in South Africa

Cross-cultural research has shown that teaching is one of the occupations with the highest level of job stress (e.g. Dorman, 2003; Stoeber & Rennert, 2008). Education literature has evidenced this trend among public school teachers in South Africa. It appears that the stressful nature of

teaching in public schools across South Africa is taking its toll on teachers (e.g. Mokoka, Rataemane & Dos Santos, 2012).

In 2012, Motshekga reported that teachers in South Africa have the highest rate of absenteeism in the Southern African Development Community (SADC). On average, every teacher was absent for 19.7 days in 2012 (Nkosi, 2013). The absenteeism rate reported in 2014 was equally disconcerting. Approximately 39 000 teachers were absent each day - an estimated 10 to 12 percent of individuals that were employed as teachers at that point in time (Chauke, 2014).

A study conducted by the Human Sciences Research Council (HSRC) in 2010, regarding Educator Leave in the South African Ordinary Public Schooling System, showed that teacher absenteeism was particularly prevalent in disadvantaged communities. Compared to the wealthiest 20 percent of public schools, teacher absenteeism was twice as prevalent in the poorest 60 percent of public schools. Although 30 percent of teacher absenteeism was attributed to official business (e.g. cluster meetings, curriculum workshops and moderation meetings) and union meetings, it was primarily justified by ill health (Reddy et al., 2010). Irrespective of the reason for teacher absenteeism, it engenders concern as data gathered by the SACMEQ in 2007 showed that students from public schools in the Eastern Cape were typically left without supervision or merely sent home when teachers were absent (Spaull, 2013).

Teacher late coming is also a cause for concern. Several studies have directed attention to the long-standing nature of this challenge and its harmful consequences for curriculum delivery. The Absent Minds Draft Report, published in 2016, revealed that 52.7 percent of public school teachers in South Africa arrived late for school, and 45.2 percent were late for class after break time (Govender, 2016). In 2009, the NSES demonstrated that 88 percent of Grade 5 mathematics and science teachers in South Africa covered less than 40 percent of the curriculum. In the majority of Grade 5 classes, more than 60 percent of the curriculum was not taught. By the end of the academic year, only 35 out of 89 topics were covered. Carnoy, Chisholm and Chilisa (2012) found similar results in the North West Province. Carnoy and his colleagues reported that only 52 out of 140 daily lessons were taught during the academic year.

In addition to absenteeism and late coming among public school teachers in South Africa, teacher turnover and attrition are equally concerning. A study conducted in 2005 found that 55 percent of public school teachers in South Africa developed turnover intention (Pulse, 2005). It is, therefore, to be expected that 24 750 teachers left the teaching occupation between 2005

and 2008 (Mampane, 2012). More recently, Simon Geyer, the Chief Director: Education Human Resource Management of the Department of Basic Education, reported that 459 teachers resigned nationally during the first quarter of 2013 (Higley, 2013).

Today, teacher supply and demand is a national issue. The number of teacher resignations exceeds those trained. In 2009, the Department of Basic Education announced that tertiary institutions across South Africa need to supply between 20 000 and 30 000 new teachers annually for a decade to satisfy national demand. This is improbable as teaching has become a “stopgap” or “last resort” occupation for many (Pitsoe, 2013). The Teacher Supply and Demand in South Africa: 2013 to 2025 Report revealed that Faculties of Education at universities are struggling to recruit students to register for initial teacher education programmes (Bernstein, 2015).

Due to the shortage of suitably qualified teachers, the Department of Basic Education has opted to appoint teachers that are unqualified⁵ or under-qualified⁶. More than 10 725 unqualified and under-qualified teachers were appointed in public schools across South Africa in 2013. Graeme Bloch, education analyst and development activist, warned that this might exacerbate challenges associated with the quality of basic education in South Africa in the long-term (Hawker, 2013).

1.1.6. Sources that contribute to the stressful nature of teaching in South Africa

The researcher is of the opinion that the stressful nature of teaching in South Africa can be attributed to a number of sources. Probably the first source that comes to mind relates to continuous government reforms. To redress past imbalances, the Department of Basic Education has introduced a series of curriculum changes during the past two decades. In 1998, the Outcomes-Based Education (OBE) was introduced. Subsequent amendments include the Revised National Curriculum Statement (RNCS), the National Curriculum Statement (NCS) and the Curriculum and Assessment Policy Statements (CAPS) (Molapo, 2016). The frequency of these curriculum changes has proven costly. Many teachers are struggling to keep up the requisite momentum.

⁵ Unqualified teachers have completed a Grade 12 qualification.

⁶ Under-qualified teachers have completed a Grade 12 qualification and received one or two years of tertiary education.

In addition to continuous government reforms, the workload of public school teachers has increased dramatically. The average ratio of students to teachers is 32.3 to one (Bernstein, 2015). The demands associated with larger classrooms are compounded by additional managerial and administrative tasks and duties that have been imposed by the above-mentioned government reforms. Despite these changes, there has been no corresponding increase in teachers' salaries or the allocation of resources.

The lack of discipline among students is another source that contributes to the stressful nature of teaching in South Africa (Wolhuter & Russo, 2013). In many public schools, there appears to be a deep-rooted tension between students and teachers. Marais and Meier (2010, p. 41) mentioned that, "Misbehaving students and disciplinary problems are a disproportionate and intractable part of every teacher's teaching experience". What is more, challenges associated with the effectiveness of performance appraisal systems, the availability of opportunities for advancement and the lack of support from principals and larger governing bodies contribute to the stressful nature of teaching in South Africa.

In many instances, the already stressful nature of teaching is further exacerbated by the meagre training and limited practical experience of teachers (Nkosi, 2015). The Initial Teacher Education Research Project, launched by the Joint Education Trust Education Services, indicated that many newly qualified teachers enter public schools ill-equipped. Due to the lack of knowledge, specifically subject content knowledge and pedagogical skills, these teachers struggle to cope effectively with the above-mentioned demands (Bernstein, 2015). The prevalence of absenteeism, late coming, turnover and attrition among public school teachers in South Africa should, therefore, come as no surprise. Notably, the inability to cope effectively with the stressful nature of teaching is not only noticeable among ill-equipped teachers. It is taking its toll on all teachers.

The inability to cope effectively with the stressful nature of teaching signifies an impediment to job performance among public school teachers in South Africa. When teachers become overwhelmed by the demands that are associated with their job, they may prefer to distance themselves from it cognitively, emotionally and behaviourally. In these instances, teachers do not approach teaching with vigour, dedication and absorption - characteristic of engaged employees. This has far-reaching consequences. It is not only harmful to the teachers themselves, but also holds inevitable consequences for students, their families and the broader society.

It is important to mention that there are teachers who can cope effectively with the above-mentioned demands. Even though research has primarily directed attention to teachers' inability to cope effectively with the stressful nature of teaching, it is important to remain cognisant of public school teachers who can remain motivated and enthusiastic about teaching despite externally imposed constraints.

During the 17th Annual Provincial Teaching Awards Ceremony, the Western Cape Department of Education recognised and celebrated the achievements of outstanding teachers. The letters of nomination illustrate that each nominee approaches teaching with vigour, dedication and absorption. Engaged in their work, the nominees exceed performance expectations. Debbie Schäfer, the Western Cape Minister of Basic Education, remarked that such teachers make a significant contribution to the effectiveness and performance of public schools in the Western Cape Province (Schäfer, 2016).

Interestingly, the nominees were diverse. Teachers came from different ethnic and social backgrounds, taught a variety of subjects in different languages at both primary and secondary schools, and had varying levels of education and tenure. Moreover, the nominees were exposed to unique circumstances within public schools and the surrounding communities. This raises questions about the antecedents of variance in job performance among public school teachers in South Africa.

While the foregoing discussion primarily highlighted between-person variance⁷ in job performance among public school teachers, it is conceivable that even “good teachers” may struggle to perform their job well from time to time. This directs attention to within-person variance⁸ in job performance among public school teachers. The researcher, therefore, concludes that it is plausible that between-person, as well as within-person, variance influence job performance among public school teachers in South Africa.

1.2. Research Challenge of the Study

The purpose of basic education is to build sustainable societies that are characterised by equality and the absence of poverty. As Annette Lovemore, Shadow Minister of Basic Education in the Western Cape Province, remarked, “Quality education is a crucial necessity

⁷ Between-person variance refers to variability that occurs between two or more individuals.

⁸ Within-person variance refers to variability that occurs within a particular individual over time.

for creating more globally competitive young adults, much-needed jobs and entrepreneurs” (Lovemore, 2014, p. 1). It imparts the knowledge, skills and abilities that individuals require to secure jobs, enter the labour market and excel in all spheres of life. The provision of quality basic education for all South Africans is, therefore, an imperative.

Regrettably, the majority of South African public schools are still “dysfunctional”, specifically in disadvantaged communities (Wilkinson, 2015). Instead of narrowing the socio-economic divide between the rich and the poor, the quality of basic education offered in many public schools appears to be exacerbating it. Even though the Department of Basic Education has implemented a number of initiatives to nurture the efficiency and performance of the South African education system, few have managed to succeed.

Employees signify the brain, heart and muscle of any organisation (Meyer & Allen, 1997). By extrapolating from this notion, the researcher claims that organisational success is mainly dependent on their job performance. In accordance with this, she contends that teacher quality is one of the primary driving forces behind the efficiency and performance of any education system. Job performance among public school teachers must, therefore, be a fundamental concern for all education systems, including the South African education system.

In line with this, the researcher suggests that it is necessary to identify the most salient antecedents of variance in job performance among public school teachers in South Africa, specifically the Western Cape Province, and to gain an understanding of the relational dynamics that exist among these antecedents. She is confident that such an understanding promises to yield substantial long-term benefits for all South Africans.

1.3. Research Initiating Question of the Study

The study was initially guided by the following research initiating question, “Which contextual, organisational, job and individual antecedents explain variance in job performance among public school teachers in the Western Cape Province?”

The initial research goal of the study was to gain an understanding of the job performance phenomenon among public school teachers in the Western Cape Province. However, after careful consideration, the researcher recognised that operationalising job performance as the dependent variable in the study was not feasible. Based on information gathered during a review of the extant literature and a series of informal discussions with public school teachers

prior to the commencement of the study, she identified a number of challenges that related to obtaining a scientifically sound measurement of objective and subjective indicators of job performance among public school teachers.

Firstly, as Chapter 2 will illustrate, teaching is a complex occupation. Quantifying teacher performance is difficult. Even though the predominant model for the measurement of teacher performance is standardised test scores, the researcher claims that it is not a sufficiently sophisticated measure. She argues that this model reflects a serious misunderstanding of the teaching occupation and the tasks and duties that teachers are expected to perform. It is necessary to gather information on all its indicators to obtain a valid and reliable measure of teacher performance. It cannot be based on a single measurement.

Secondly, the researcher recognises that it may be possible to use questionnaires and tools that have been used by other researchers to gather information on its indicators. However, she was unable to identify suitable questionnaires and tools that would provide a scientifically sound measurement of all the objective and subjective indicators of job performance among public school teachers in the Western Cape Province. Nevertheless, even if the researcher was able to identify such questionnaires and tools, she anticipates that it may be time-consuming to administer it among all the relevant parties (e.g. inspectors, principals, other teachers and students). Moreover, the time investment required from participants will interfere with the time spent teaching, which may pose a risk to her ability to obtain institutional permission.

Thirdly, while it may be possible to develop questionnaires and other tools for the measurement of objective and subjective indicators of job performance among public school teachers in the Western Cape Province, the researcher anticipates that a challenge associated with such an undertaking relates to the weighting of indicators. Based on information gathered during a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study, she claims that not all the indicators are equal. Some indicators of job performance among public school teachers are more pronounced in certain contexts compared to other contexts.

Lastly, considering that many indicators of teacher performance are subjective, the uncertainty associated with its measurement may induce anxiety among public school teachers. Due to the sensitive nature of the challenges associated with teacher performance in South Africa, the

researcher anticipates that the measurement of subjective indicators of job performance among public school teachers in the Western Cape may evoke interference from unions.

To address the above-mentioned challenges, the researcher suggests that employee engagement is a suitable dependent variable in the study. It will, therefore, be used as a proxy for the measurement of job performance among public school teachers in the Western Cape Province. Information gathered during a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study informed this decision. It was, therefore, necessary to revisit and amend the above-mentioned research initiating question.

With reference to the foregoing comments, the amended research initiating question is, “Which contextual, organisational, job and individual antecedents explain variance in employee engagement among public school teachers in the Western Cape Province?”

Specific research questions:

- What are the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province?
- What are the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province?

1.4. Objectives of the Study

The primary objective of the study is to develop and evaluate an exploratory model of the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.

Specific research objectives:

- Identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.

- Explore the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.
- Evaluate the emerging exploratory model quantitatively, making specific reference to contextual, organisational, job and individual antecedents that explain between-person variance in employee engagement among public school teachers in the Western Cape Province.
- Highlight the theoretical conclusions that were made based on the research results and recommend human resource practices and interventions to foster employee engagement among public school teachers in the Western Cape Province.

As illustrated by the primary objective, the study is intended to develop and evaluate an exploratory model of the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province. The researcher will explore between-person, as well as within-person, variance in employee engagement in the qualitative phase of the study (i.e. Parts 1 and 2). However, due to practical constraints, she will be unable to verify exploratory results concerning within-person variance in employee engagement in the quantitative phase of the study (i.e. Part 3). Only results concerning between-person variance in employee engagement among public school teachers will be verified using a cross-sectional approach based on a self-report web-based survey.

1.5. Scope of the Study

The boundaries of the study will be highlighted below.

Firstly, the researcher acknowledges that many antecedents of variance in employee engagement among teachers have been identified throughout literature. She will not include all of these antecedents in the study. Based on the information gathered during the initial interviews (i.e. Part 1) and a review of the extant literature, the most salient antecedents of variance in employee engagement among public school teachers in the Western Cape Province will be identified. These antecedents will be used to develop the research protocol for follow-up interviews (i.e. Part 2) and the self-report web-based survey (i.e. Part 3).

Secondly, the researcher will make a conscious shift away from studying weaknesses among public school teachers in the Western Cape Province. To date, most researchers have

concentrated on individual differences that are an impediment to employee engagement among teachers (e.g. Kokkinos, 2007; Stoeber & Rennert, 2008). In consideration of this, she will highlight positive attributes and strengths (i.e. personal resources and engagement coping) that foster employee engagement among public school teachers in the Western Cape Province to develop a complete and balanced understanding of the engagement phenomena among teachers. This approach corresponds with the positive psychology approach (Seligman & Csikszentmihalyi, 2000).

Based on research conducted by Deci and Ryan (1985), Rogers (1951) and Ryff and Singer (1996), among others, the positive psychology approach was introduced to develop a complete and balanced understanding of human functioning. As opposed to the traditional pathogenic approach of human functioning, the positive psychology approach urges researchers “to adopt a more open and appreciative perspective regarding human potentials, motives and capacities” (Sheldon & King, 2001, p. 216). It concentrates on the conditions and processes that give rise to the optimal functioning of individuals, groups and organisations (Seligman & Csikszentmihalyi, 2000).

Thirdly, the researcher recognises that it is imperative that all teachers (i.e. public school teachers and private school teachers) in South Africa perform their job optimally. However, given challenges associated with the quality of basic education offered in many public schools across South Africa, she will conduct the study among public school teachers in the Western Cape Province. This does not imply that private schools are without challenges, but highlights the need for an urgent intervention among public school teachers.

Fourthly, along with as the above-mentioned boundary, the researcher will conduct the study among secondary school teachers in the Western Cape Province. While primary education lays the foundation for learning, secondary education equips the youth with the knowledge, skills and abilities that individuals require to secure jobs, enter the labour market and excel in all spheres of life. Moreover, it prepares the youth to contribute to civic and community development. Secondary education is, therefore, not only an economic imperative, but the cornerstone of national development (Evoh, 2007). For this reason, the researcher contends that secondary school teachers play an essential role in alleviating poverty and remedying past imbalances in South Africa.

Lastly, the researcher will conduct the study among public school teachers in the Western Cape Province (i.e. Cape Winelands, Eden and Central Karoo, Metro Central, Metro East, Metro North, Metro South, Overberg and West Coast). Ideally, the sample population would include teachers employed in public schools across South Africa. However, due to practical constraints, this was not feasible.

1.6. Outline of the Study

The structure of the study will be outlined below.

Chapter 2

In Chapter 2, the theoretical foundation for the above-mentioned research questions will be laid. It involves an analysis of the extant literature to identify and define latent variables of interest (i.e. contextual, organisational, job and individual).

Chapters 3 and 4

The mixed-methods exploratory sequential design will be used to satisfy the above-mentioned research objectives. Correspondingly, the researcher will conduct the qualitative phase (i.e. Parts 1 and 2), before proceeding to the quantitative phase (i.e. Part 3). She will conduct a variation of the conventional IQA methodology for the purpose of the qualitative phase. In Chapter 3, the IQA research protocol will be deliberated, and the results of Part 1 of the qualitative phase will be presented. In Chapter 4, Part 2 of the qualitative phase will be discussed.

Notably, the researcher will deviate from the conventional style of reporting both the research methodology and results in Chapters 3 and 4. Considering the unique nature of the IQA methodology, she will present each successive procedural step that was taken in the qualitative phase and its results. The procedural steps and the emerging results will be interwoven.

Chapters 5 and 6

The quantitative phase of the study will be used to verify the exploratory results of the qualitative phase. This will enable the researcher to verify exploratory results concerning between-person variance in employee engagement and make generalisations to the broader population of public school teachers in the Western Cape Province. She will use a cross-

sectional approach based on a self-report web-based survey for the purpose of the quantitative phase (i.e. Part 3). In Chapter 5, an introduction to the research process followed in the quantitative phase will be given. In Chapter 6, the results of the quantitative phase will be presented.

Chapter 7

In Chapter 7, a summative discussion of the qualitative phase (i.e. Parts 1 and 2), as well as the quantitative phase (i.e. Part 3), of the study will be presented. Following this, the theoretical conclusions and managerial implications of the study will be deliberated. Thereafter, the contributions of the study to the extant body of knowledge will be outlined. In conclusion, the limitations of the study and recommendations for future research will be discussed..

1.7. Summary

The purpose of Chapter 1 was to contextualise the study. The researcher provided a brief overview of persisting nature of poverty and inequality in South Africa and developmental programmes that have been proposed by the government to alleviate poverty and remedy past imbalances since the dawn of its democratic dispensation to realise this objective. As illustrated by the foregoing discussion, these programmes have not been successful in achieving their objectives. Poverty and inequality are still noticeable in many aspects of the South African society (World Bank, 2018a).

The researcher proposed that the provision of quality basic education for all represents an avenue worth pursuing, especially in public schools. It offers a long-term, sustainable solution to persisting challenges of poverty and inequality in South Africa. In accordance with other researchers (e.g. Fouché et al., 2017; Rothmann & Fouché, 2018), she recommended that well-functioning teachers, who are able and motivated to perform their job optimally, are required to provide quality basic education for all South Africans. It is, therefore, essential to ensure that teachers approach teaching with vigour, dedication and absorption - characteristic of engaged employees. For this reason, the study will identify the most salient antecedents of variance in employee engagement among public school teachers in South Africa, specifically the Western Cape Province, and explore the relational dynamics that exist among these antecedents. Such an understanding promises to yield substantial long-term benefits for all South Africans.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

The first two sections of Chapter 2 will offer an overview and integration of the body of the extant literature that has emerged in the areas of job performance and employee engagement (i.e. Sections 2.2 and 2.3). These sections will be followed by a theoretical overview of demands (i.e. job and contextual demands), resources (i.e. job, contextual and personal resources) and coping strategies (i.e. job crafting) on the basis of their inferred role as antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. Sections 2.4 through 2.6).

2.2. Job Performance: The Ultimate Dependent Variable

The issue of job performance has not only grasped the attention of organisations across the globe, but also fuelled a great deal of research. Researchers from diverse research traditions have studied job performance. It should, therefore, come as no surprise that different approaches to studying job performance are identifiable throughout performance literature.

In the fields of management, industrial and organisational psychology and occupational health, job performance is considered a core concept. While the field of management focusses on enhancing employee productivity, the field of occupational health is primarily occupied with the prevention of productivity losses due to disease and health impairment. Industrial and organisational psychologists, on the other hand, are interested in indicators and predictors of job performance. In accordance with this, the researcher will study the antecedents of variance in job performance among public school teachers in the Western Cape Province. However, to develop an understanding of the variables that predict job performance among teachers, she claims that it is imperative to understand, “What constitutes job performance?”

Job performance, effectiveness and productivity are often used interchangeably despite being conceptually distinct. Effectiveness refers to an evaluation of the consequences of what employees do at work. Even though it is used as an index of job performance in some instances, it does not reflect job performance per se (Campbell, 1990). Similarly, productivity also does

not signify job performance. Productivity is a narrower concept that is used to determine the ratio of outputs relative to inputs (Mahoney, 1988).

To avoid such confusion, the researcher will summarise the major approaches to performance research below. Firstly, job performance will be defined, and its multi-dimensional nature will be described. Following this, indicators and predictors of job performance will be deliberated. To conclude, within-person variance in job performance will be explored.

2.2.1. Definition of job performance

Even though extensive research propagates the relevance of job performance for organisations and individuals alike, early performance research spent limited effort on clarifying what is meant by the concept. Campbell (1990, p. 704) stated that literature concerning the structure and content of job performance was “a virtual desert”.

“A moment’s thought about the different jobs one has experienced is sufficient to illustrate how difficult it is to find an overall definition of performance that is applicable across jobs and even across situations” (Demerouti & Cropanzano, 2010, p. 148). Employees perform many tasks and duties, some of which are not even included in their job descriptions. Given its theoretical complexity, it is understandable that researchers did not formulate precise definitions of job performance until the 1990s.

Campbell (1990) was the first researcher to propose a widely endorsed model of job performance. Campbell maintained that job performance encompasses the behaviours or actions of employees that are relevant to organisational goals. Three assumptions accompany his conceptualisation of job performance. Firstly, job performance involves the behaviours or actions of employees, as opposed to results. Judgemental and evaluative processes define these behaviours or actions. Secondly, not all the behaviours or actions of employees are subsumed under job performance. Job performance only refers to goal-orientated behaviours or actions that contribute to organisational goals. As Campbell, McCloy, Oppler and Sager (1993, p. 40) pointed out, “Performance is what the organisation hires one to do, and to do well”. Lastly, Campbell (1990) remarked that job performance is a multi-dimensional construct.

Following Campbell (1990), a number of other researchers put forth efforts to define job performance (e.g. Borman & Motowidlo, 1997; Motowidlo, Borman & Schmit, 1997). Most researchers agree that the conceptualisation of job performance should differentiate between

the behavioural aspect (i.e. process) and the outcome aspect (i.e. result) of job performance. As opposed to Campbell's (1990) conceptualisation of job performance, which highlights the behavioural aspect, the outcome aspect refers to the consequences of what employees do at work and whether these outcomes are aligned with the overall strategic goals of their organisation (Roe, 1999).

Researchers have not been able to reach consensus over which of the above-mentioned aspects signifies job performance best. Although research has shown that the behavioural aspect and the outcome aspect are empirically related, there is not a complete overlap between the two (Sonnentag, Volmer & Spsychala, 2008). In practice, it is difficult to describe the behavioural aspect without making reference to the outcome aspect, as all the behaviours or actions of employees influence organisational goals either directly or indirectly. Moreover, to evaluate the extent to which the behaviours or actions of employees contribute to organisational goals (i.e. behavioural aspect) criteria is required (Motowidlo et al., 1997). However, articulating criteria without considering the outcome aspect is challenging. For these reasons, many researchers include both aspects in their definition of job performance. A case in point is Viswesvaran and Ones (2000). Viswesvaran and his colleague defined job performance as “scalable actions, behaviour and outcomes that employees engage in or bring about, that are linked with and contribute to organisational goals” (Viswesvaran & Ones, 2000, p. 216).

The researcher contends that both aspects of job performance are equally important among public school teachers in the Western Cape Province. Although the outcome aspect of student progression and achievement represents a substantial factor in teacher performance, the behavioural aspect should not be neglected. The behaviours or actions of teachers influence student progression and achievement. As an illustration, it is improbable that teachers will be able to improve student progression and achievement in algebra (i.e. outcome aspect) if they are unable to provide an algebra lesson that fulfils all the learning requirements and encourages learning among their students (i.e. behavioural aspect). The behavioural aspect of teaching helps to ensure that knowledge is transferred from teachers to their students.

Importantly, the researcher suggests that the behavioural aspect of teacher performance is not only a function of tasks and duties prescribed by job descriptions. Job descriptions do not provide solid grounds for defining job performance among public school teachers in the Western Cape Province. The behavioural aspect of job performance is multi-dimensional. It refers to all the behaviours or actions of teachers that influence the organisational goal of

accelerated student progression and achievement, including behaviours or actions that are unrelated to formally assigned tasks and duties.

The researcher will direct attention to the stand-alone dimensions of job performance that are mentioned throughout performance literature below to provide a holistic perspective on job performance among public school teachers in the Western Cape Province.

2.2.2. The multi-dimensional nature of job performance

The notion that job performance is a multi-dimensional construct has been firmly established in performance literature. A number of generic frameworks have identified broad dimensions that can be used to describe job performance. Based on the conceptual grouping of stand-alone dimensions mentioned in performance literature, the researcher claims that there are three broad dimensions, namely task, contextual and adaptive performance. It is important to mention that these categories do not subsume all the dimensions of job performance. There are generic frameworks that describe dimensions of job performance that are not subsumed under these categories (e.g. counterproductive work behaviour, creative performance and proactive performance) (Demerouti & Cropanzano, 2010).

2.2.2.1. Task Performance

Task performance denotes the level of proficiency with which employees perform activities that serve the technical core functions of organisations. This stand-alone dimension of job performance is defined as the officially required behaviours or actions of employees that contribute to organisational goals either directly or indirectly. According to Borman and Motowidlo (1997), task performance entails the accomplishment of tasks and duties that are prescribed by job descriptions. Other labels used to describe task performance include in-role behaviour (e.g. Katz, 1964), job-specific task proficiency (e.g. Campbell, 1990) and technical proficiency (e.g. Campbell, McHenry & Wise, 1990).

It is conceivable that the behaviours or actions of employees that serve the technical core functions of organisations vary from job to job. Job-specific frameworks of job performance are, therefore, typically used to highlight specific dimensions of task performance (e.g. Leung, Trevena & Waters, 2016; Sinclair & Tucker, 2006). From a teaching perspective, the researcher proposes that examples of task performance include satisfying students and their parents through effective teaching (in terms of style and quality) and lesson planning.

Almost all generic frameworks of job performance refer to task performance. In fact, early attempts at exploring job performance were predominantly focussed on task requirements of job performance (e.g. Fleishman, 1965, 1967). While task performance is important and has been the traditional focus of performance literature, the researcher contends that it does not describe job performance in its entirety. Job performance encompasses more than performing activities that serve the technical core functions of organisations. Employees also display (or should also display) contextual performance.

2.2.2.2. Contextual Performance

Contextual performance refers to the level of proficiency with which employees perform activities that do not contribute to the technical core of organisations, but supports the organisational, psychological and social environment within which organisational goals are pursued (Borman & Motowidlo, 1997). It is defined as discretionary behaviours or actions of employees that promote effective organisational functioning without necessarily influencing productivity (Motowidlo & Van Scotter, 1994). These behaviours or actions are particularly important for sustaining long-term organisational success. The researcher proposes that examples of contextual performance among public school teachers in the Western Cape Province include maintaining quality relationships with students and their parents and taking personal responsibility for continuous professional development.

Three assumptions are used to distinguish between task performance and contextual performance. Firstly, the behaviours or actions that are relevant to task performance are job-specific, while the behaviours or actions that are relevant to contextual performance remain relatively similar across different jobs. Secondly, competence predicts task performance, and motivation and personality predict contextual performance. Thirdly, task performance involves in-role behaviours that are prescribed by job descriptions, whereas contextual performance denotes discretionary and extra-role behaviours that are generally not rewarded or recognised (Borman & Motowidlo, 1997).

It is necessary to point out that contextual performance itself is multi-dimensional. It does not refer to a single set of uniform behaviours or actions. At a general level, conceptualisations of contextual performance are either directed toward enhancing organisational effectiveness at a specific point in time (i.e. stabilising contextual performance) or it involves proactive

behaviours or actions of employees that are aimed at implementing new and innovative procedures and processes (i.e. proactive contextual performance) (Sonnentag & Frese, 2002).

Stabilising contextual performance is built on the research areas of extra-role behaviour (e.g. Van Dyne & LePine, 1998), prosocial organisational behaviour (e.g. Brief & Motowidlo, 1986), organisational citizenship behaviour (e.g. Smith, Organ & Near, 1983) and organisational spontaneity (e.g. George & Brief, 1992). The proactive view of contextual performance (i.e. proactive contextual performance), on the other hand, includes concepts of personal initiative (e.g. Frese, Kring, Soose & Zempel, 1996), proactive behaviour (e.g. Bateman & Crant, 1993) and taking charge (e.g. Morrison & Phelps, 1999).

In terms of the stand-alone dimensions of job performance, the researcher claims that there is another distinction worth making. In recent years, organisations have seen significant changes. Correspondingly, the nature of job performance has evolved. Given the growing focus on interdependency and adaptability, a number of researchers have remarked that adaptive performance should be considered a distinct dimension of job performance (e.g. Griffin, Neal & Neale, 2000; Pulakos, Arad, Donovan & Plamondon, 2000).

2.2.2.3. Adaptive Performance

Adaptive performance denotes the extent to which employees can adapt to changes in work systems and roles (Griffin et al., 2000). It involves “solving problems creatively, dealing with uncertain or unpredictable work situations, learning new tasks, technologies and procedures, and adapting to other individuals, cultures, or physical surroundings” (Koopmans et al., 2011, p. 862). From a teaching perspective, the researcher proposes that examples of adaptive performance include dealing with unpredictable classroom emergencies or crises and using information communication technology to foster learning.

Sinclair and Tucker's (2006) job-specific framework of job performance considers adaptive performance as a distinct dimension of job performance, along with task performance and contextual performance. Other frameworks of job performance include adaptive performance as part of contextual performance. For instance, Rollins and Frudge's (1992) dimension of adaptability, Murphy and Jackson's (1999) dimension of role flexibility, Hunt's (1996) dimension of schedule flexibility and Hedge, Borman, Bruskiewicz and Bourne's (2004) dimension of leading change.

The researcher contends that each of the above-mentioned stand-alone dimensions of job performance is equally important among public school teachers in the Western Cape Province. The interaction between task, contextual and adaptive performance contribute to the overall job performance of teachers in such a way that each stand-alone dimension signifies a prerequisite of teacher performance. An accurate reflection of teacher performance, therefore, hinges on the assessment of each stand-alone dimension. The researcher will, therefore, discuss indicators of job performance below. Specific reference will be made to public school teachers in the Western Cape Province.

2.2.3. Indicators of job performance

An important categorisation in the assessment of job performance is to differentiate between objective and subjective performance indicators. Objective performance indicators are easily quantifiable aspects of job performance. According to Viswesvaran (2001), this category of job performance is measured in terms of results-based performance indicators (e.g. number of units produced or time needed to process information). As an illustration, an objective performance indicator of insurance claims assessors may be the number of claims they assessed during a specific period.

In contrast, subjective performance indicators refer to aspects of job performance cannot be quantified. When objective performance indicators are unavailable, difficult to assess or inappropriate, judgements or ratings of knowledgeable individuals (e.g. supervisors, colleagues, subordinates or clients) are used to measure job performance. Viswesvaran (2001) mentioned that this category of job performance is measured in terms of competency-based performance indicators (e.g. customer service, professionalism or teamwork). For example, a subjective performance indicator of insurance claims assessors may be the quality of customer service they offered during interactions with their clients.

Teaching is a complex occupation that involves multiple behaviours or actions and outcomes, some of which are difficult to observe. In consideration of this, the researcher explains that it is necessary to account for both objective and subjective performance indicators to measure teacher performance in a reliable and consistent manner. Rockoff and Speroni (2011) agreed that the relationship between objective and subjective performance indicators is particularly significant in the field of education.

2.2.3.1. Objective Indicators of Teacher Performance

Even though the perception exists that it is difficult to measure “good teaching”, objective indicators of teacher performance do exist. When reflecting on objective indicators of teacher performance, probably the first tangible evidence of teacher accomplishment that comes to mind is student progression and achievement. Standardised test scores, benchmarked against the performance of similar classrooms, provide an easily accessible objective measure of teacher performance. It is, however, important to control for baseline test scores when using standardised test scores to measure teacher performance. This helps to ensure that teacher performance is measured in terms of teachers’ ability to raise academic achievement - not based on the pre-existing knowledge, skills and abilities that students possess (Rockoff & Speroni, 2011).

While teachers’ impact on student progression and achievement should be a substantial factor in the assessment of teacher performance, the researcher cautions that it should not be used in isolation. By drawing on research, she claims that standardised test scores are not a sufficiently sophisticated measure of teacher performance (e.g. Hallinger, Heck & Murphy, 2014; Rockoff & Speroni, 2011) and may encourage counterproductive work behaviour among teachers, as shown in South Africa. The Integrated Quality Management System (IQMS), which was introduced by the Education Labour Relations Council in 2003 to increase the accountability among public school teachers, has had detrimental consequences (Mosoge & Pilane, 2014). Research has shown that the IQMS has encouraged blatant cheating and instruction geared toward the preparation for particular tests among many public school teachers in South Africa (Queen-Mary & Mtapuri, 2014). Evidently, when too much emphasis is placed on student growth in performance, standardised tests may distort classroom learning.

2.2.3.2. Subjective Indicators of Teacher Performance

In addition to objective indicators of teacher performance, the researcher contends that it is equally important to elucidate subjective indicators of teacher performance. Subjective indicators of teacher performance are assessed by knowledgeable individuals, from inside and outside of a particular school (e.g. inspectors, principals, other teachers and students) based on classroom observation and reviews of student work.

Research has directed attention to several subjective indicators of teacher performance (e.g. Darling-Hammond, 2010; Stronge, Ward & Grant, 2011). The researcher will draw on a

framework for teaching that was introduced by Danielson (2007) for the purpose of the literature review. She decided to use this framework for teaching, as it integrates and synthesises subjective indicators of teacher performance in a clear and easily understandable manner. What is more, it corresponds with the information gathered during a series of informal discussions with public school teachers prior to the commencement of the study.

As shown in Table 2.1, Danielson's (2007) framework outlines educational practices that support student growth in performance. To acknowledge the complex nature of teaching, it centres effective teaching on four domains. These domains are planning and preparation, classroom environment, instruction and professional responsibilities. Each domain consists of components that outline characteristics of effective teaching, and each component consists of elements that explain its aspects. These elements signify subjective indicators of teacher performance that “define what teachers should know and be able to do in the exercise of their profession” (Danielson, 2007, p. 1).

2.2.3.2.1. Planning and preparation

The first domain in Danielson's (2007) framework for teaching is planning and preparation. This domain is centred on how teachers prepare, design and organise the content that students need to learn. It subsumes all the aspects of instructional planning and preparation.

Teachers, who excel in the planning and preparation domain, are knowledgeable of relevant content (i.e. concepts and principles) and pedagogy, as well as students (i.e. background, interests and skills). These teachers can transform content through instructional design (i.e. activities, material and strategies) to make it accessible to students. Moreover, they use formative assessment techniques to determine the strengths and weaknesses of students and summative assessment techniques to evaluate student growth in performance (Danielson, 2007).

2.2.3.2.2. Classroom environment

The second domain in Danielson's (2007) framework for teaching is classroom environment. The components of this domain are centred on establishing “a comfortable and respectful classroom environment that cultivates a culture for learning and creates a safe place for risk taking” (Danielson, 2007, p. 28). The classroom environment domain is, therefore, concerned with setting the stage for all learning, as opposed to the learning of particular content.

Within the classroom environment domain, effective teachers create a classroom environment that is supportive of learning. These teachers are committed to meeting the needs of students and cultivating positive relationships with them. Moreover, they set high standards for student growth in performance and use their classroom management and organisational skills to handle non-instructional routines and procedures effectively (Danielson, 2007).

2.2.3.2.3. *Instruction*

The third domain in Danielson's (2007) framework for teaching is instruction. This domain “contains components that are at the essential heart of teaching - the actual engagement of students in content” (Danielson, 2007, p. 29). It subsumes all the aspects of instructional skills.

Teachers, who excel in the instruction domain, successfully carry out the plans and lessons created in the planning and preparation domain. These teachers use their instructional skills to adapt their instructional design (i.e. activities, material and strategies) to meet the needs of students. Moreover, they engage students in complex thought and discussion by asking higher order thinking questions and use formative and summative assessment techniques to provide students with feedback that may encourage them to excel (Danielson, 2007).

2.2.3.2.4. *Professional responsibilities*

The fourth domain in Danielson's (2007) framework for teaching is professional responsibilities. This domain is centred on the interactions that teachers have with students inside the classroom, as well as their interactions with parents and members of the community outside of the classroom. It subsumes all the aspects of professionalism among teachers.

Within the professional responsibilities domain, effective teachers cultivate positive relationships with parents and members of the community. As a result, they are highly regarded by these individuals. These teachers inform parents about the instructional program, student progression and achievement and any concerns that they have regarding students. Moreover, they actively pursue their professional responsibilities, ranging from engaging in self-reflection to participating in professional organisations (Danielson, 2007).

Table 2.1

Domains, components and elements of the framework for teaching

Domain 1: Planning and preparation	Domain 2: Classroom environment	Domain 3: Instruction	Domain 4: Professional responsibilities
Component 1 a: Demonstrating knowledge of content and pedagogy	Component 2 a: Creating an environment of respect and rapport	Component 3 a: Communicating with students	Component 4 a: Reflecting on teaching
<ul style="list-style-type: none"> • Knowledge of content and the structure of the discipline • Knowledge of prerequisite relationships • Knowledge of content-related pedagogy 	<ul style="list-style-type: none"> • Teacher interaction with students • Student interactions with other students 	<ul style="list-style-type: none"> • Expectations for learning • Directions and procedures • Explanations of content • Use of oral and written language 	<ul style="list-style-type: none"> • Accuracy • Use in the future teaching
Component 1 b: Demonstrating knowledge of students	Component 2 b: Establishing a culture for learning	Component 3 b: Using questioning and discussion techniques	Component 4 b: Maintaining accurate records
<ul style="list-style-type: none"> • Knowledge of child and adolescent development • Knowledge of learning process • Knowledge of students' skills, knowledge and language proficiency • Knowledge of students' interests and cultural heritage • Knowledge of students' special needs 	<ul style="list-style-type: none"> • Importance of the content • Expectations for learning and achievement • Student pride in work 	<ul style="list-style-type: none"> • Quality of questions • Discussion techniques • Students participation 	<ul style="list-style-type: none"> • Student completion of assignments • Student progress in learning • Non-instructional records
Component 1 c: Setting instructional outcomes	Component 2 c: Managing classroom procedures	Component 3 c: Engaging students in learning	Component 4 c: Communicating with families
<ul style="list-style-type: none"> • Value, sequence and alignment • Clarity • Balance • Suitability for diverse learners 	<ul style="list-style-type: none"> • Management of instructional groups • Management of transitions • Management of materials and supplies • Performance of non-instructional duties • Supervision of volunteers and paraprofessionals 	<ul style="list-style-type: none"> • Activities and assignments • Grouping of students • Instructional materials and resources • Structure and pacing 	<ul style="list-style-type: none"> • Information about the instructional program • Information about individual students • Engagement of families in the instructional program

Table 2.1

Domains, components and elements of the framework for teaching (Continued)

Domain 1: Planning and preparation	Domain 2: Classroom environment	Domain 3: Instruction	Domain 4: Professional responsibilities
Component 1 d: Demonstrating knowledge of resources	Component 2 d: Managing student misbehaviour	Component 3 d: Using assessment in instruction	Component 4 d: Participating in a professional community
<ul style="list-style-type: none"> Resources for classroom use Resources to extend content knowledge and pedagogy Resources for students 	<ul style="list-style-type: none"> Expectations Monitoring student behaviour Response to student misbehaviour 	<ul style="list-style-type: none"> Assessment criteria Monitoring of student learning Feedback to students Students self-assessment and monitoring of progress 	<ul style="list-style-type: none"> Relationship with colleagues Involvement in a culture of professional inquiry Service to the school Participation in school and district projects
Component 1 e: Designing coherent instruction	Component 2 e: Organising physical space	Component 3 e: Demonstrating flexibility and responsiveness	Component 4 e: Growing and developing professionally
<ul style="list-style-type: none"> Learning activities Instructional materials and resources Instructional groups Lesson and unit structure 	<ul style="list-style-type: none"> Safety and accessibility Arrangement of furniture and use of physical resources 	<ul style="list-style-type: none"> Lesson adjustments Response to students Persistence 	<ul style="list-style-type: none"> Enhancement of content knowledge and pedagogical skill Receptivity to feedback from colleagues Service to the profession
Component 1 f: Designing student assessments			Component 4 f: Showing professionalism
<ul style="list-style-type: none"> Congruence with instructional outcomes Criteria and standards Design of formative assessments Use for planning 			<ul style="list-style-type: none"> Integrity and ethical conduct Service to students Advocacy Decision-making Compliance with school and district regulations

Note: Adapted from *Enhancing professional practice: A framework for teaching* (2nd Ed, p. 3-4), by C. Danielson, 2007, Alexandria, VA: Association for Supervision and Curriculum Development.

The foregoing discussion illustrated that teaching is indeed a complex occupation. For this reason, teacher performance should be assessed in terms of both objective and subjective performance indicators. As mentioned in Chapter 1, the researcher was unable to identify suitable questionnaires and tools that would provide a scientifically sound measurement of all the objective and subjective indicators of job performance among public school teachers in the Western Cape Province. It will, therefore, not be feasible to operationalise job performance as the dependent variable in the study. The researcher recommends that it is necessary to comprehend what predicts teachers' ability to satisfy the above-mentioned requirements (i.e. objective and subjective performance indicators) to address this challenge. This will enable her to identify a suitable dependent variable that can be used as a proxy for the measurement of job performance among public school teachers in the Western Cape Province. In consideration of this, a review of the extant literature regarding predictors of job performance will be given below.

2.2.4. Predictors of job performance

Researchers have adopted various perspectives for studying predictors of job performance. At the most basic level, performance research distinguishes between two perspectives, namely the individual difference perspective and the situational perspective (Sonnentag et al., 2008). These perspectives are not mutually exclusive. They merely approach the performance phenomenon from different angles.

2.2.4.1. Individual Difference Perspective

Research has documented substantial dissimilarity among teachers in their ability to raise student growth in performance (e.g. Slater, Davies & Burgess, 2012; Stronge et al., 2011). For example, analyses conducted by Aaronson, Barrow and Sander (2007) on administrative data of Grade 9 students and teachers at public high schools in Chicago found substantial dissimilarity among teachers in their ability to raise student growth in performance. Aaronson and his colleagues showed that the math score performance of students, who spent one semester with a teacher that rated two standard deviations higher in teacher quality compared to their counterparts, increased with 25 to 45 percent of an average school year. Rivkin, Hanushek and Kain (2005) reported complementary results. Rivkin and his colleagues found that teacher quality accounted for at least 15 percent of the total variation in student performance.

The above-mentioned differences in job performance among teachers can be attributed to person-specific factors. In line with this, the individual difference perspective seeks to identify and understand how individual differences influence job performance (Sonnentag et al., 2008). The core question to be answered by this perspective is, “Which individuals perform best?” (Sonntag & Frese, 2002, p. 8).

Research has directed attention to several person-specific factors that explain differences in job performance among employees. The researcher will discuss seven person-specific factors below. These person-specific factors include work experience, knowledge, General Mental Ability (GMA), personality traits, emotional intelligence, core self-evaluations and job attitudes.

2.2.4.1.1. Work experience

Research has shown that work experience predicts job performance. As an example, a meta-analysis conducted by Hunter and Hunter (1984) demonstrated a mean correlation of .18 between work experience and job performance. Similar results were reported by other meta-analyses (e.g. McDaniel, Schmidt & Hunter, 1988; Sturman, 2003). It is necessary to point out that these meta-analyses indicated that the positive association between work experience and job performance decreases with age and is contingent on both job complexity and different measures of job performance.

A meta-analysis conducted by Quiñones, Ford and Teachout (1995) also highlighted the complex nature of the relationship between work experience and job performance. Quiñones and his colleagues differentiated between different measures of job performance (i.e. objective or subjective measures), modes of measuring work experience (i.e. amount, time or type) and levels of specificity (i.e. job, organisational or task experience). The results revealed that objective measures, the amount of work experience and task experience were salient predictors of job performance (Quiñones et al., 1995).

2.2.4.1.2. Knowledge

As mentioned, Campbell (1990) was influential in advancing the understanding of job performance. In collaboration with his colleagues, Campbell proposed a general model to explain individual differences in job performance (Campbell et al., 1993). The model distinguished between the components of job performance, determinants of the components of

job performance and predictors of these determinants. It suggested that declarative knowledge, as well as procedural knowledge, are core determinants of job performance.

In accordance with the above-mentioned model, research has shown that declarative knowledge predicts job performance. A case in point is a meta-analysis conducted by Hunter and Hunter (1984). Hunter and his colleague reported a mean correlation of .48 between declarative knowledge (i.e. job content knowledge tests) and job performance. Dye, Reck and McDaniel (1993) reported comparable results. Dye and his colleagues found a mean correlation of .45 between declarative knowledge (i.e. written knowledge tests) and job performance. Interestingly, a moderator analysis conducted by Dye et al. (1993) showed that the effect size of the correlation between declarative knowledge and job performance increased along with the complexity of jobs.

Research has also shown that procedural knowledge predicts job performance. As an example, a meta-analysis conducted by McDaniel et al. (1988) demonstrated a mean correlation of .34 between procedural knowledge (i.e. situational judgement tests) and job performance. Similar results were reported by Matsuo and Kusumi (2002). Notably, a moderator analysis conducted by Matsuo and his colleague showed that the effect size of the correlation between procedural knowledge and job performance increased along with the work experience.

2.2.4.1.3. *General mental ability*

Ability signifies “a general term concerning the power or capacity to act financially, legally, mentally, physically, or in some other way” (Ree, Carretta & Steindl, 2001, p. 219). More specifically, cognitive ability refers to qualifications or mental capacity. Although the positive association between educational attainment and job performance has attracted a great deal of attention (e.g. Ng & Feldman, 2009), research has also revealed support for the positive association between mental capacity, particularly GMA, also known as g (Spearman, 1904), and job performance.

To take a case in point, a meta-analysis conducted by Hunter and Hunter (1984) demonstrated a mean correlation of .51 between GMA and job performance. Complementary results were reported by other meta-analyses (e.g. Salgado et al., 2003; Schmidt & Hunter, 2004). It is important to mention that these meta-analyses indicated that the positive association between GMA and job performance is contingent on job complexity. The results showed that the effect

size of the correlation between GMA and job performance increased along with job complexity. Even so, GMA remains important in less complex jobs (Salgado et al., 2003).

Apart from the positive association between GMA and job performance, research has also shown that specific cognitive abilities are related to job performance. For example, a meta-analysis conducted by Bertua, Anderson and Salgado (2005) reported mean correlations ranging from .35 to .50 between specific ability tests (i.e. numerical, perceptual, spatial and verbal ability) and job performance. Nevertheless, it is often assumed that specific cognitive abilities are not better predictors of job performance than GMA. However, this remains a heavily debated topic in the field of recruitment and selection (e.g. Lent & Brown, 2006; Schmidt, 2002).

2.2.4.1.4. *Personality traits*

In addition to the above-mentioned cognitive factors (i.e. knowledge and GMA) and work experience, research has also shown that non-cognitive states and traits predict job performance. Several researchers have examined the role of personality factors in the prediction of job performance, including the big five personality factors (e.g. Judge, Rodell, Klinger, Simon & Crawford, 2013) and narrow personality traits (e.g. Dudley, Orvis, Lebiecki & Cortina, 2006).

Research has shown support for a weak, but positive association between the big five personality factors and job performance. As an illustration, a meta-analysis conducted by Barrick and Mount (1991) demonstrated mean correlations ranging from .04 to .22 between the big five personality factors (i.e. agreeableness, conscientiousness, emotional stability, extraversion and openness to experience) and job performance. Kanfer and Kantrowitz (2002) reported similar results. Kanfer and her colleague found mean correlations ranging from .08 to .22 for emotional stability, .09 and .16 for extraversion, -.03 and .27 for openness to experience, -.01 and .33 for agreeableness and .12, and .31 for conscientiousness.

In response to the above-mentioned studies, Dudley et al. (2006) proposed that broad personality traits may not be the most salient predictors of job performance. A meta-analysis conducted by Dudley and her colleagues revealed support for this notion. They found that narrow personality traits (i.e. achievement, cautiousness, dependability and order) increased the amount of variance explained in job performance with up to 25 percent beyond the predictive power of global conscientiousness.

In recent years, researchers have begun to raise questions about the uniform linear nature of the relationship between personality traits and job performance. Although the relationship between personality traits and job performance is generally assumed to be linear, some researchers have revealed that a curvilinear relationship exists between these variables. As an illustration, a cross-sectional study conducted by Blickle et al. (2015) among 214 heterogeneous employees and 303 other-raters in Germany found a curvilinear relationship between personality traits (i.e. extraversion) and job performance. Comparable results were reported by Le et al. (2011). Le and his colleagues also found a curvilinear relationship between personality traits (i.e. conscientiousness) and job performance.

2.2.4.1.5. *Emotional intelligence*

In addition to personality traits, research has found that emotional intelligence predicts job performance in a number of occupational groups, including call centre agents (e.g. Shamsuddin & Rahman, 2014), sales personnel (e.g. Wong, Law & Wong, 2004) and research and development scientists (e.g. Law, Wong, Huang & Li, 2008). For example, a meta-analysis conducted by O'Boyle, Humphrey, Pollack, Hawver and Story (2011) demonstrated mean correlations ranging from .24 to .30 between different models of emotional intelligence (i.e. ability, self-report and mixed models) and job performance. Interestingly, O'Boyle and his colleagues also reported that each model of emotional intelligence showed substantial relative importance in the presence of other factors (i.e. big five personality factors and GMA) when predicting job performance.

It is, however, necessary to mention that the positive association between emotional intelligence and job performance has not been demonstrated consistently. In fact, some researchers have found no relationship between emotional intelligence and job performance. To take a case in point, a cross-sectional study conducted by Gryn (2010) among 45 call centre leaders and 223 other-raters from a medical aid environment in South Africa did not find a statistically significant relationship between overall emotional intelligence and job performance. Complementary results were reported by Joseph and Newman (2010). Joseph and her colleague revealed that research concerning the positive association between the ability model of emotional intelligence and job performance has been inconsistent. The researcher proposes that this may be attributed to the fact that some jobs do not involve emotional labour. Emotional intelligence may be a better predictor of job performance in jobs that involve a high degree of emotional labour.

2.2.4.1.6. Core self-evaluations

Core self-evaluations represent a personality-related framework that has received increased attention during the past two decades. Judge, Locke, Durham and Kluger (1998, p. 18) explained that core self-evaluations refer to “fundamental, subconscious conclusions individuals reach about themselves, other people, and the world”. Core self-evaluations consist of four factors, namely emotional stability, generalised self-efficacy, locus of control and self-esteem.

Research has revealed that core self-evaluations predict job performance. For example, a meta-analysis conducted by Judge and Bono (2001) revealed a positive association between core self-evaluations and job performance. Judge and his colleague demonstrated mean correlations ranging from .19 to .26 between core self-evaluations (i.e. emotional stability, generalised self-efficacy, internal locus of control and self-esteem) and job performance. Bono and Judge (2003) reported similar results.

It is necessary to point out that research has indicated that work conditions moderate the positive association between core self-evaluations and job performance. As an illustration, two cross-sectional studies conducted by Kacmar, Collins, Harris and Judge (2009) among 137 employees from a state agency and their supervisors, and 226 employees from a medium-sized commercial food distributor and their supervisors demonstrated that perceptions of organisational politics and leader effectiveness moderated the relationship between core self-evaluations and job performance.

2.2.4.1.7. Job attitudes

Another person-specific factor that has attracted considerable attention is job attitudes (e.g. Alessandri, Borgogni & Latham, 2017; Dalal, Baysinger, Brummel & LeBreton, 2012). The positive association between job satisfaction and job performance is especially widely researched. As an example, a meta-analysis conducted by Harrison, Newman and Roth (2006) found that overall job attitude (i.e. job satisfaction and organisational commitment) was related to an integrative behavioural criterion (i.e. absence, contextual performance, focal performance, lateness and turnover). Complementary results were reported by Judge, Thoresen, Bono and Patton (2001). Judge and his colleagues demonstrated a mean correlation of .30 between job satisfaction and job performance.

Similar results have been reported with regard to other job attitudes. Research has revealed support for the positive association between organisational commitment (e.g. Harrison et al., 2006; Wright & Bonett, 2002), employee engagement (e.g. Halbesleben & Wheeler, 2008; Salanova, Agut & Peiró, 2005) and job embeddedness (e.g. Halbesleben & Wheeler, 2008; Lee, Mitchell, Sablinski, Burton & Holtom, 2004), and job performance respectively.

2.2.4.2. *Situational Perspective*

Job performance is not only a function of person-specific factors. The work environment within which jobs are performed also influences it. In line with this, the situational perspective seeks to identify and understand how situational factors in the workplace enhance or hinder job performance (Sonnentag et al., 2008). The core question to be answered by this perspective is, “In which situations do individuals perform best?” (Sonnentag & Frese, 2002, p. 11).

The Job Characteristics Model (JCM), which was introduced by Hackman and Oldham (1976), provides a framework for dealing with work conditions that enhance job performance. The model describes the relationships among five core job characteristics (i.e. autonomy, feedback, task identity, task significance and skill variety), critical psychological states (i.e. experienced meaningfulness of work, experienced responsibility for work outcomes and knowledge of the actual results of work activities), and the physical and psychological health outcomes of employees and organisational outcomes (e.g. job performance). Hackman and Oldham (1976) suggested that the core job characteristics outlined in the JCM support favourable physical and psychological health outcomes among employees and organisational outcomes by enhancing specific critical psychological states.

Research has shown support for a weak, but positive association between the core job characteristics outlined in the JCM and job performance. To take a case in point, a meta-analysis conducted by Fried and Ferris (1987) demonstrated mean correlations ranging from .13 to .22 between core job characteristics (i.e. autonomy, feedback, task identity, task significance and skill variety) and job performance. Humphrey, Nahrgang and Morgeson (2007) reported complementary results. Humphrey and his colleagues found that autonomy was related to objective performance, while autonomy, task identity, task significance and feedback were related to subjective performance.

The JD-R model, which was introduced by Demerouti, Bakker, Nachreiner and Schaufeli (2001), provides another framework for dealing with work conditions that enhance or hinder

job performance. The model will be discussed in greater detail in the following section of the literature review (i.e. Section 2.3).

In addition to the individual difference and situational perspectives, the researcher proposes that it is important to direct attention to the role of work motivation in the prediction of job performance. For this reason, she will discuss the motivational perspective below.

2.2.4.3. Motivational Perspective

The concept of motivation is as old, if not older, than the concept of job performance. Throughout literature, a number of perspectives have been used to understand motivation, including Maslow's (1943) hierarchy of needs, Herzberg's (1966) two-factor theory, McClelland's (1965) achievement theory, Vroom's (1964) expectancy theory and McGregor's (1960) theories X and Y. Even in contemporary research, it continues to command the attention of researchers, especially in terms of its importance for job performance (e.g. Halbesleben & Bowler, 2007; Springer, 2011).

According to Campbell (1990), the relationship between motivation and job performance can be attributed to the combined effect of three choices. These choices are the choice to expend energy and effort; the choice of the amount of energy and effort to expend; and the choice to continue expending a particular amount of energy and effort. In line with this, researchers have identified various motivational factors that are essential for job performance (e.g. extrinsic rewards and incentives, need for achievement, goal-setting and organisational justice) (Sonnentag et al., 2008). These motivational factors are partly subsumed under the individual difference perspective and the situational perspective.

The above-mentioned perspectives highlight between-person variance in job performance. The between-person perspective asks, "Why does a particular employee, in general, perform better than another employee?" To put it differently, this perspective is aimed at identifying factors that distinguish "good performers" from "bad performers". It examines employees' general level of job performance. Researchers, who adopt this perspective, assume that job performance is relatively stable over time.

While the between-person perspective has provided valuable insights, recent research has shown that within-person variance in job performance also occurs. Depending on circumstances, the stability of job performance may be high or low (e.g. Sturman, 2007;

Sturman, Cheramie & Cashen, 2005). The researcher remarks that this has clear implications for how we think about and intend to address challenges associated with unsatisfactory job performance among public school teachers in the Western Cape Province.

Although it may be valuable to examine the general level of performance that public school teachers in the Western Cape Province exhibit, from a conceptual and theoretical point of view, the researcher argues that it is necessary to supplement the between-person perspective of job performance with the within-person perspective of job performance for three reasons. Firstly, supplementing the between-person perspective with the within-person perspective promises to offer an in-depth understanding of the performance phenomenon. The within-person perspective points to additional, transient predictors of job performance that cannot be captured when approaching the performance phenomenon from the between-person perspective. Secondly, the within-person perspective enables researchers to determine the performance trajectories of employees over time. It enables them to determine how job performance fluctuates and the pattern of these fluctuations (e.g. cubic or linear). Thirdly, the within-person perspective holds inevitable consequences for human resource practices and interventions. By acknowledging the dynamic nature of job performance, this perspective highlights the importance of identifying factors that predict within-person variance in the performance trajectories of employees.

2.2.5. Within-person variance in job performance

The within-person perspective asks, “Why does a particular employee perform better at a specific point in time?” To put it differently, this perspective is aimed at identifying factors that explain why even “good performers” have “off days” (vice versa). It examines the level of performance that employees exhibit at a specific point in time. Researchers, who adopt this perspective, recognise that job performance is subject to short-term (e.g. momentary, daily or weekly), as well as longer-term (e.g. monthly, seasonally or yearly), fluctuations in the context of transient events, experiences and cognitive processes (Dalal, Bhawe & Fiset, 2014).

When discussing within-person variance in job performance, it is necessary to distinguish between three forms of variability. The first form of variability involves linear or curvilinear trends, which refer to either increases or declines in job performance. These trends are brought forth by ageing, development or learning. The second form of variability consists of cycles, which resemble sinusoidal functions (i.e. recurring patterns of increases and declines) in job

performance. The third form of variability is event-driven. This form of variability is discontinuous and leads to sudden changes in direction or magnitude (Dalal et al., 2014). In addition, it is also necessary to distinguish between within-person variance in job performance that is associated with “more or less permanent changes” and “more or less reversible changes” (Nesselroade, 2004, p. 44), as well as within-person variance in job performance that occurs over different time frames (Lord, Diefendorff, Schmidt & Hall, 2010).

Research has shown support for the notion of within-person variance in the previously mentioned stand-alone dimensions of job performance. To take a case in point, preliminary analysis conducted by Dalal et al. (2014) demonstrated that within-person sources explained 62 percent of variance in task performance. Dalal and his colleagues also found that within-person sources explained variance in organisational citizenship behaviour (43 percent), counterproductive work behaviour (49 percent), proactive behaviour (39 percent), creative behaviour (50 percent) and overall job performance (64 percent). Interestingly, these results suggest that the amount of variance explained by within-person sources may differ across stand-alone dimensions of job performance.

2.2.6. Evaluation of the emerging theoretical model of teacher performance

The preceding section of the literature review summarised major approaches to performance research (i.e. Section 2.2). Firstly, job performance was defined, and its multi-dimensional nature was described in terms of task, contextual and adaptive performance. Thereafter, indicators (i.e. objective and subjective indicators) of job performance were deliberated. This was followed by a discussion of between-person variance in job performance. Between-person sources were categorised into three broad perspectives, namely the individual difference, situational and motivational perspectives. In conclusion, the relevance of within-person variance in job performance was highlighted.

Taken together, the preceding section of the literature review culminated in a theoretical model of teacher performance (Figure 1.1), which rightly reflects the complex nature of teaching.

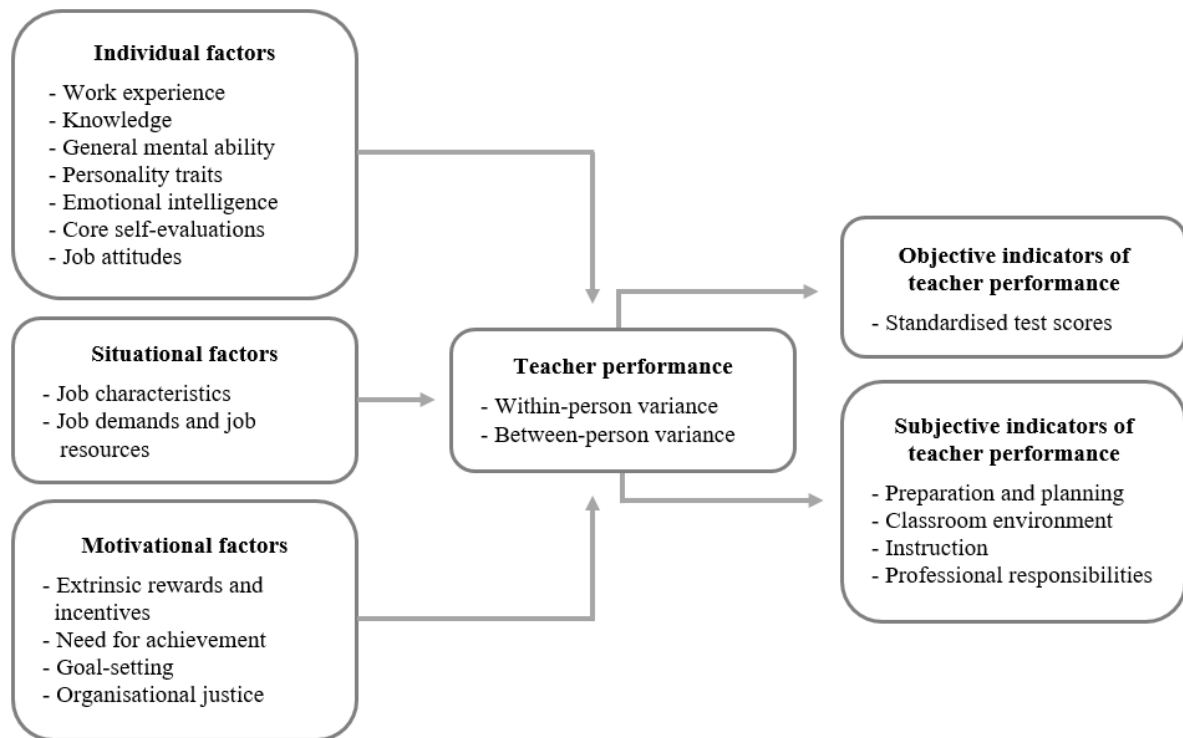


Figure 1.1 Theoretical model of teacher performance

The theoretical model of teacher performance distinguishes between three categories of predictors (i.e. individual, situational and motivational factors). This illustrates that various perspectives can be adopted to study predictors of teacher performance. What is more, it distinguishes between two categories of indicators (i.e. objective and subjective performance indicators). This shows that objective and subjective performance indicators can be used to assess teacher performance.

The theoretical model of teacher performance also acknowledges the relative importance of between-person and within-person variance job performance. In consideration of this, the researcher explained that it is important to approach persisting challenges associated with unsatisfactory job performance among public school teachers in the Western Cape Province from the between-person, as well as the within-person, perspective. Combining these perspectives promises to deliver an in-depth understanding of the performance phenomenon among teachers. Such an understanding will better inform human resource practices and interventions that may be developed and implemented to enhance teacher performance and, in turn, improve the quality of basic education offered in many public schools.

Importantly, as mentioned in Chapter 1, the researcher was unable to identify suitable questionnaires and tools that would provide a scientifically sound measurement of all the objective and subjective indicators of job performance among public school teachers in the Western Cape Province. It will, therefore, not be feasible to operationalise job performance as the dependent variable and evaluate the emerging theoretical model of teacher performance in its entirety in the study. The researcher suggested that employee engagement, a widely researched job attitude, is a suitable dependent variable that can be used to address this challenge and evaluate a reduced structural model. Employee engagement will, therefore, be used as a proxy for the measurement of job performance among public school teachers in the Western Cape Province. Information gathered during a review of the extant literature and information gathered during a series of informal discussions with public school teachers prior to the commencement of the study informed this decision.

The researcher will explore the association between job attitudes, specifically employee engagement, and job performance in the following section of the literature review (i.e. Section 2.3). Notably, even though researchers traditionally highlighted between-person variance in job attitudes, contemporary research distinguishes between trait-like and state-like job attitudes. This distinction will enable the researcher to examine how between-person (i.e. trait-like job attitudes that are relatively stable over time), as well as within-person (i.e. state-like job attitudes that are transient), variance in job attitudes predict job performance among public school teachers in the Western Cape Province.

2.3. Job Attitudes among Public School Teachers in the Western Cape Province

Job attitudes and the job attitude-behaviour relationship signify two of the oldest and most influential areas of inquiry in the field of industrial and organisational psychology (Judge & Kammeyer-Mueller, 2012). The substantive nature of job attitudes in the field of industrial and organisational psychology flows from the broader context of social attitudes research. According to Eagly and Chaiken (1993, p. 1), an attitude refers to “a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour”. Along the same lines, a job attitude denotes employees’ fundamental evaluation of their job experience (Harrison et al., 2006).

As mentioned, researchers have identified a number of job attitudes that influence job performance in substantial and meaningful ways (e.g. Alessandri et al., 2017; Dalal et al.,

2012). This begs the question, “Which job attitude is the most salient predictor of job performance?”

For many years, job satisfaction was thought of as the job attitude that best predicts job performance. Researchers argued that satisfied employees perform better compared to their counterparts. While early research asserted the salience of job satisfaction in the prediction of job performance, its status as the most pertinent job attitude has been eroded over time. Recent research has indicated that job satisfaction may not be the job attitude that best predicts job performance (e.g. Judge et al., 2001). In response to this, many researchers have abandoned the job satisfaction-performance relationship and studied the salience of other job attitudes (e.g. job involvement, organisational commitment, perceived organisational support or work centrality) in the prediction of job performance (e.g. Halbesleben & Wheeler, 2008; Harrison et al., 2006).

A review of the extant literature reveals that employee engagement has taken centre stage in recent research (e.g. Breevaart, Bakker, Demerouti & Van Den Heuvel, 2015; Smith & Bititci, 2017). This job attitude has attracted a great deal of interest since its introduction in 1990 (Kahn, 1990), especially during the last two decades. Crawford, Rich, Buckman and Bergeron (2014) reported that well over 250 scientific articles were published about employee engagement between 2000 and 2013, with more than 80 percent published since 2006.

In 2018, enthusiasm for this well-known and widely accepted job attitude remains evident on the part of researchers and practitioners. However, given the proliferation of research concerning the relationship between other job attitudes and job performance, the researcher recommends that it is necessary to consider whether employee engagement explains incremental variance in job performance beyond other job attitudes to determine whether it is a suitable dependent variable in the study.

Fortunately, research has offered substantial empirical evidence to justify the enthusiasm of researchers and practitioners toward employee engagement (e.g. Johnson, Robertson & Cooper, 2018; Reijseger, Peeters, Taris & Schaufeli, 2017). It has demonstrated that employee engagement, at different levels of analysis, is closely related to job performance. For example, a meta-analysis conducted by Christian, Garza and Slaughter (2011) showed that employee engagement explained incremental variance in job performance (i.e. task performance and contextual performance) beyond other job attitudes (i.e. job involvement, job satisfaction and

organisational commitment). Consistent with this, a cross-sectional study conducted by Dalal et al. (2012) among 191 heterogeneous employees in the United States of America also found that employee engagement explained incremental variance in job performance (i.e. counterproductive work behaviour, organisational citizenship behaviour and task performance) beyond other job attitudes (i.e. job involvement, organisational commitment, perceived organisational support and work centrality). With reference to the context of the study, research has also indicated that employee engagement is a salient predictor of job performance among teachers. As an illustration, a diary study conducted by Bakker and Bal (2010) among 54 teachers in the Netherlands demonstrated that weekly employee engagement was positively related to weekly job performance.

By extrapolating from the above-mentioned studies, the researcher proposes that employee engagement plays an important role in explaining variance in job performance among public school teachers in the Western Cape Province. She claims that engaged teachers will be more likely to be actively involved in, enthusiastic about and committed to teaching. These teachers will be more likely to devote discretionary effort to create an optimal learning environment that fosters holistic student progression and achievement. For this reason, employee engagement will be operationalised as the dependent variable in the study.

It is important to mention that three additional considerations informed the researcher's decision to operationalise employee engagement as the dependent variable in the study. Firstly, teacher performance is a multi-dimensional construct. In line with the conceptualisation of job performance in most contemporary jobs, procedural and easily observable objective indicators, as well as subjective indicators that are difficult to observe, capture teacher performance. In consideration of this, the predominant model for the measurement of teacher performance, which focusses on task performance, will not suffice. Operationalising employee engagement as the dependent variable in the study promises to be a more sophisticated approach, as several objective and subjective indicators of teacher performance are outcomes of employee engagement (Macey, Schneider, Barbera & Young, 2009).

Secondly, in accordance with the principles of the positive psychology approach (Seligman & Csikszentmihalyi, 2000), contemporary research in the field of industrial and organisational psychology primarily adopts a positive approach to research regarding organisational phenomena. Employee engagement represents an application of this approach.

Operationalising employee engagement as the dependent variable in the study is, therefore, consistent with contemporary research in the field of industrial and organisational psychology.

Thirdly, recent research has revealed that employee engagement is on a steady decline globally. The 2017 Trends in Global Employee Engagement Report, which involved five million employees from more than 1 000 heterogeneous organisations across the globe, showed that only 39 percent of employees were moderately engaged in their work and less than 25 percent of employees were highly engaged in their work. Furthermore, the report highlighted that employee engagement globally declined from 65 percent in 2015 to 63 percent in 2016 (AON Hewitt, 2017). In South Africa, this trend is also noticeable. The 2015 State of Employee Engagement in South Africa Survey, which involved 1 100 employees from heterogeneous organisations across the country, revealed that nearly 64 percent of South Africans were disengaged from their work (Public Display Technologies, 2015). These results suggest that there is a deepening sense of employee disengagement across the globe. It is, therefore, necessary to identify human resource practices and interventions that may be developed and implemented to foster employee engagement among all employees, including public school teachers in the Western Cape Province.

In view of the foregoing discussion, the researcher suggests that it is necessary to develop an in-depth understanding of what employee engagement entails and its association with job performance below.

2.3.1. Overview of employee engagement

Two issues plague research regarding employee engagement. Firstly, several definitions of employee engagement are mentioned throughout literature. Even though employee engagement is a widely researched construct, there continues to be a lack of consensus among researchers on what this “slippery” construct means (Schaufeli & Salanova, 2011, p. 1). Researchers have not even been able to agree on the name of this construct. Some researchers refer to employee engagement⁹ (e.g. Smith & Bititci, 2017), while other researchers suggest that it should be named job engagement (e.g. Jung & Yoon, 2016) or work engagement (e.g. Schaufeli & Salanova, 2011). Secondly, there is not a generally accepted theory of employee engagement. Several theories have been developed to explain the engagement phenomenon.

⁹ The researcher will refer to employee engagement and engagement interchangeably.

The researcher will take a closer look at engagement literature below. It is necessary to point out that it goes beyond the scope of the literature review to discuss the entire body of knowledge related to employee engagement. She will use a broad brush to address the above-mentioned issues and direct attention to other relevant aspects. Firstly, the meaning of employee engagement will be clarified. Secondly, relevant theories of employee engagement will be discussed. Thereafter, the relationship between employee engagement and job performance will be considered. Lastly, predictors of employee engagement will be mentioned.

2.3.2. Definition of employee engagement

Defining employee engagement has been problematic since its introduction. This issue can largely be attributed to its apparent conceptual overlap with other job attitudes (e.g. job involvement, job satisfaction or organisational commitment) (Eldor & Vigoda-Gadot, 2017; Shuck, Ghosh, Zigarmi & Nimon, 2012). In addition, its conceptual distinctiveness from job burnout has also been questioned (Cole, Walter, Bedeian & O'Boyle, 2012; Taris, Ybema & Van Beek, 2017), as research regarding employee engagement originated from burnout literature (Maslach & Leiter, 1997).

To address concerns about the conceptual distinctiveness of employee engagement, some researchers have proposed an all-inclusive umbrella term that subsumes various types of engagement (e.g. Macey & Schneider, 2008). The researcher rejects this approach. In accordance with Bakker, Schaufeli, Leiter and Taris (2008), she argues that employee engagement is a specific construct. It is necessary to revisit the original writings of researchers who proposed the most influential definitions of employee engagement that are mentioned throughout engagement literature to establish an appropriate definition of this construct.

During two qualitative, theory-generating studies among 32 employees from 2 heterogeneous organisations, Kahn (1990) first introduced the concept of engagement. By drawing on the work of group theorists (e.g. Bion, 1961), psychologists (e.g. Freud, 1922) and sociologists (e.g. Merton, 1957), Kahn proposed that a dynamic, dialectical relationship exists between employees who invest personal energy (i.e. cognitive, emotional and physical energy) in the performance of their work roles and work roles that allow employees to express themselves. He distinguished between personal engagement and personal disengagement to describe the way that employees “use varying degrees of their selves, physically, cognitively and emotionally, in their work role performances” (Kahn, 1990, p. 684).

Kahn (1990) defined personal engagement as the extent to which employees employ and express themselves cognitively, emotionally and physically in the performance of their work roles. He remarked that engaged employees are capable of expressing their true selves in the performance of their work roles. These employees “feel and are attentive, connected, integrated, and focussed in their work role performances” (Kahn, 1992, p. 322). This, in turn, leads to favourable physical and psychological health outcomes among employees and organisational outcomes. Kahn (1990) added that personal disengagement denotes the extent to which employees withdraw and defend themselves cognitively, emotionally and physically in the performance of their work roles.

The second influential definition of employee engagement was introduced by Maslach and Leiter (1997). Maslach and her colleague explained that employee engagement denotes “an energetic state of involvement with personally fulfilling activities that enhance one’s sense of professional efficacy” (Maslach & Leiter, 2008, p. 498). These researchers proposed that employee engagement and job burnout signify two opposing ends of a single continuum. By implication, employee engagement (i.e. characterised by energy, involvement and the presence of professional efficacy) represents the direct opposite or positive antithesis of job burnout (i.e. characterised by cynicism, exhaustion and the absence of professional efficacy).

Subsequently, the third influential definition of employee engagement was introduced by Schaufeli, Salanova, González-Romá and Bakker (2002). Schaufeli and his colleagues challenged Maslach and Leiter’s (1997) notion that employee engagement represents the direct opposite or the positive antithesis of job burnout. They proposed that employee engagement and job burnout are two independent, albeit negatively correlated, mental states. Employee engagement and job burnout are, therefore, not two opposing ends of a single continuum.

Schaufeli et al. (2002, p. 74) defined employee engagement as “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption”. Vigour is a positive affective response to work, characterised by feelings of cognitive liveliness, emotional energy and physical strength. Vigorous employees exhibit high levels of energy and mental resilience while working and the willingness to invest effort in their work. These employees can persist when faced with demands. Dedication refers to being actively involved in work. Dedicated employees consider their work to be a meaningful and significant pursuit. These employees experience a sense of enthusiasm, inspiration and pride in their work. Absorption refers to a complete captivation with work. This dimension of employee engagement

approximates Csikszentmihalyi's (1997) conceptualisation of flow, whereby employees experience an optimal state of focussed attention and intrinsic enjoyment in their work. Absorbed employees are fully immersed and happily engrossed in their work. These employees are unaware of time passing and have difficulty disengaging themselves from their work.

The researcher will define employee engagement in accordance with Schaufeli et al. (2002). Four considerations informed this decision. Firstly, Schaufeli et al.'s (2002) conceptualisation recognise employee engagement and job burnout as two independent mental states, as opposed to two mutually exclusive mental states. This acknowledges that employees, who are not engaged in their work, are not necessarily burnt out, but disengaged from their work. Secondly, it accounts for the affective (i.e. vigour), motivational (i.e. dedication) and cognitive (i.e. absorption) aspects of employee engagement. This acknowledges that employee engagement involves emotion, motivation and cognition. Thirdly, the superiority of this conceptualisation lies in the fact that it divides employee engagement into three dimensions (i.e. vigour, dedication and absorption). This allows for the detection of specific strengths and deficiencies, as each dimension can be considered independently. Lastly, each dimension that is subsumed under Schaufeli et al.'s (2002) conceptualisation can be measured with a valid and reliable psychometric questionnaire (i.e. Utrecht Work Engagement Scale (UWES)) (Schaufeli, Bakker & Salanova, 2006).

The researcher, however, challenges Schaufeli et al.'s (2002, p. 74) suggestion that employee engagement is “a more persistent and pervasive affective-cognitive state that is not focussed on any particular object, event, individual, or behaviour”. Although researchers traditionally highlighted between-person variance in employee engagement (i.e. trait-like employee engagement), recent research has shown that within-person variance in employee engagement (i.e. state-like employee engagement) also occurs. As an example, a diary study conducted by Van Woerkom, Oerlemans and Bakker (2016) among 65 civil engineers from 43 heterogeneous organisations (e.g. building companies, engineering agencies and local governments) in the Netherlands demonstrated that weekly strengths use was positively related to weekly employee engagement through weekly self-efficacy. A diary study conducted by Tims, Bakker and Xanthopoulou (2011) among 42 employees from 2 heterogeneous organisations in the Netherlands demonstrated similar results. Tims and her colleagues found that daily transformational leadership was positively related to daily employee engagement directly and indirectly through daily optimism. In response to this, researchers have begun to examine

employee engagement from a variety of time perspectives, ranging from the trait perspective (i.e. between-person variance) to the state perspective (i.e. within-person variance).

The above-mentioned time perspectives do not contradict one another. In accordance with the distinction between the time perspectives that have been applied in performance literature (i.e. between-person and within-person perspectives), they merely approach the engagement phenomenon at different levels of analysis. The trait perspective is used to gain an understanding of between-person variance in employee engagement. This perspective asks, “Why is a particular employee, in general, more engaged than another employee?” It examines employees’ general level of engagement. Researchers, who adopt the trait perspective, assume that employee engagement is relatively stable over time. In contrast, the state perspective is used to gain an understanding of within-person variance in employee engagement. This perspective asks, “Why is a particular employee more engaged in his or her work at a specific point in time?” It examines the level of engagement that employees experience at a specific point in time. Researchers, who adopt the state perspective, recognise that employee engagement may be subject to short-term (e.g. momentary, daily or weekly), as well as longer-term (e.g. monthly, seasonally or yearly), fluctuations in the context of transient events, experiences and cognitive processes (Sonnentag, Dormann & Demerouti, 2010).

Although it may be valuable to examine the general level of engagement that public school teachers in the Western Cape Province experience, from a conceptual and theoretical point of view, the researcher argues that it is necessary to supplement the trait perspective with the state perspective. She will, therefore, distinguish between trait-like employee engagement and state-like employee engagement in the study. Three considerations informed this decision. Firstly, the state perspective allows for an analysis of temporal patterns in work experiences and behavioural outcomes. Assessing the general level of engagement that employees experience ignores the dynamic nature of the engagement phenomenon. Secondly, Sonnentag et al. (2010) remarked that state-like employee engagement might be more causally related to work experiences and behavioural outcomes, such as job performance, than an aggregation of previous work experiences over an extended period (i.e. trait-like employee engagement). The state perspective may, therefore, yield more robust evidence of its antecedents and consequences, compared to the trait perspective. Lastly, the state perspective allows for an analysis of proximal antecedents of variance employee engagement, as well as general

predictors, such as stable job demands and job resources identified by the JD-R model (Demerouti et al., 2001).

Following the clarification of the meaning of employee engagement in the present, the researcher contends that it is important to consider which theory will be used to frame the engagement phenomenon among public school teachers in the Western Cape Province. For this reason, she will discuss prominent theories of employee engagement below.

2.3.3. Theories of employee engagement

Despite extensive research, there continues to be a lack of consensus among researchers on the theory that best explains the engagement phenomenon. As a consequence, research regarding employee engagement is theoretically diverse. Rather than integrating existing theories into an artificial taxonomy of employee engagement, the researcher will consider the prominent theories of employee engagement independently.

The origin of employee engagement theories stems primarily from two areas of research, namely personal engagement and personal disengagement (Kahn, 1990) and job burnout and employee well-being (Maslach & Leiter, 1997). The first prominent theory of employee engagement is found in two qualitative, theory-generating studies conducted by Kahn (1990). Kahn proposed that personal engagement and personal disengagement are a function of three psychological conditions, namely psychological availability, psychological meaningfulness and psychological safety. Psychological availability signifies employees' readiness and confidence to engage in the performance of their work roles. Employees' readiness and confidence is influenced by the belief that they have the personal energy (i.e. cognitive, emotional and physical energy) to invest in the performance of their work roles. Psychological meaningfulness denotes employees' perception that there is a return on the investment of their personal energy in the performance of their work roles. Employees' ideals or standards inform this perception. Psychological safety signifies employees' perception of being able to express their true selves at work without the fear of ridicule or negative consequences to their career, self-image or status. The presence of these psychological conditions fosters personal engagement. The absence of these psychological conditions, on the other hand, foster personal disengagement.

The second prominent theory of employee engagement, which was introduced by Maslach and Leiter (1997), originated from burnout literature. Maslach and her colleague suggested that job

burnout and employee engagement are a function of six important areas of employees' work-life, namely control, community and social support, perceived fairness, rewards and recognition, values and workload. A match between employees and these areas of their work-life fosters employee engagement. In contrast, a mismatch between employees and these areas of their work-life fosters job burnout (Maslach, Schaufeli & Leiter, 2001).

The JD-R model is the third prominent theory of employee engagement (Figure 2.1) (Demerouti et al., 2001). Along the same lines as Maslach and Leiter's (1997) theory of job burnout and employee well-being, the JD-R model also originated from burnout literature. It was, in fact, initially referred to as the JD-R model of burnout. The JD-R model of burnout proposed that job burnout is a function of two broad categories of work conditions, namely job demands and job resources.

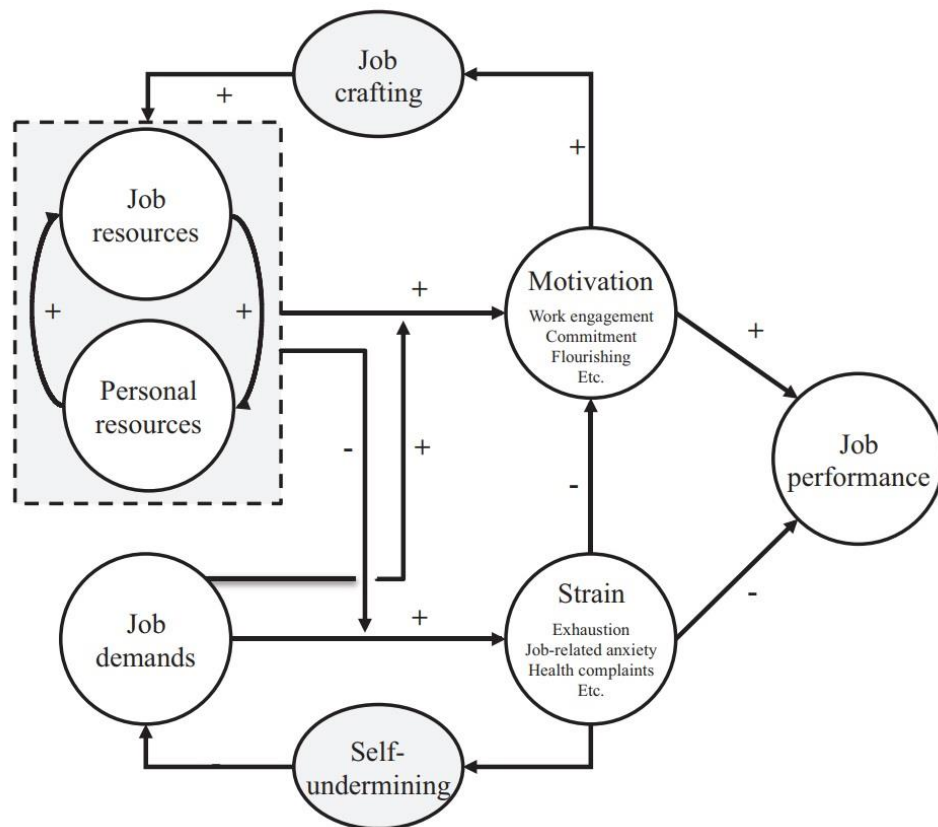


Figure 2.1 Job demands-resources model. Reprinted from *Multiple levels in job demands-resources theory: Implications for employee well-being and performance* (p. 2), by A. B. Bakker and E. Demerouti in *Handbook of well-being*, by E. Diener, S. Oishi and L. Tay, 2018, Salt Lake City, UT: DEF Publishers.

Demerouti et al. (2001, p. 501) described job demands as “physical, social, or organisational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs”. In accordance with Hockey's (1997) model of compensatory control, the JD-R model suggests that employees require additional energy to deal with job demands. It is, however, important to recognise that job demands may present either a challenge (i.e. challenging job demands) or a hindrance (i.e. hindering job demands) to employees. This is consistent with LePine, Podsakoff and LePine's (2005) distinction between hindrance stressors and challenge stressors within the parameters of the challenge stressor-hindrance stressor framework.

Hindering job demands are excessive or undesirable constraints that hinder employees' ability to achieve work goals. Examples of hindering job demands are role ambiguity, role overload and bureaucracy. Challenging job demands, on the other hand, require sustained physical, mental or psychological effort, but may promote employees' personal growth and achievement (Podsakoff, LePine & LePine, 2007). It is, therefore, to be expected that challenging job demands are typically appraised as rewarding work experiences - worth the effort and skills that they require (Bakker & Demerouti, 2017). Examples of challenging job demands are workload, time pressure and complex work tasks.

Interestingly, researchers have found that hindering job demands may be appraised as challenging job demands (vice versa). As an example, a cross-sectional study conducted by Bakker and Sanz-Vergel (2013) among 120 home healthcare nurses in the Netherlands showed that work pressure (which is generally thought of as a hindering job demand) was appraised as a challenging job demand, rather than a hindering job demand. Other researchers have found that job demands were appraised as both a challenge (i.e. challenging job demands) and a hindrance (i.e. hindering job demands) in some instances. A case in point is a cross-sectional study conducted by Webster, Beehr and Love (2011) among 479 employees. Webster and her colleagues found that although role conflict, role ambiguity and workload were appraised primarily as challenging job demands or hindering job demands, these job demands were at the same time appraised as being both to varying degrees.

Job resources are “physical, social or organisational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands and the associated physiological and psychological costs; (c) stimulate personal growth and development” (Demerouti et al., 2001, p. 501). These resources are found in organisations (e.g. job security

or opportunities for advancement), relationships at work (e.g. supervisor support or team climate), the organisation of work (e.g. participation in decision-making or role clarity) or in work tasks (e.g. task identity or task significance) (Bakker & Demerouti, 2007)

Three years after Demerouti et al. (2001) introduced the JD-R model, Schaufeli and Bakker (2004) presented a revised version of the model by drawing on the principles of the positive psychology approach (Seligman & Csikszentmihalyi, 2000). This version of the JD-R model included employee engagement as a mediator variable. It no longer only sought to explain how job burnout develops, but also the positive, fulfilling, work-related state known as employee engagement. The basic premise of this version of the JD-R model suggests that two parallel processes influence the level of strain (e.g. disengagement, health complaints or job burnout) or motivation (e.g. commitment, employee engagement or flourishing) that employees experience and, in turn, their behavioural outcomes (e.g. job performance) (Bakker & Demerouti, 2017). These processes are the health impairment process, also known as the effort-driven process (i.e. what employees can do), and the motivational process, also known as the motivation-driven process (i.e. what employees will do) (Schaufeli & Bakker, 2004).

The health impairment process involves the physical and mental exhaustion related to chronic job demands or poorly designed jobs. Poorly designed jobs, characterised by a lack of job resources, make it difficult for employees to meet job demands and achieve work goals. In these instances, employees exhibit withdrawal behaviour to prevent further energy depletion and increased job stress (i.e. motivational component of job burnout). Chronic exposure to high job demands renders employees unable to recover from mobilising additional energy. Sustained activation eventually results in physical and mental exhaustion that leads to disengagement, health complaints or job burnout (i.e. energy component of job burnout) (Bakker & Demerouti, 2007).

The motivational process, on the other hand, is associated with well-being, positive attitudes and employee engagement. Job resources are believed to play an extrinsic, as well as an intrinsic, motivational role in this process. The motivational potential of job resources can be either extrinsic, because it is instrumental in the reduction of job demands and their associated costs (i.e. physiological and psychological costs) or the achievement work goals, or intrinsic, because it satisfies and facilitates employees' psychological needs (i.e. personal development, growth and learning). Job resources also help employees to cope with job demands by buffering

its negative influence on the physical and psychological health outcomes of employees (Bakker & Demerouti, 2007).

Research has shown support for the main effects of job demands (i.e. health impairment process) and job resources (i.e. motivational process), as well as their outcomes, at different levels of analysis. As an illustration, a longitudinal study conducted by Hakanen, Schaufeli and Ahola (2008) among 2 555 dentists in Finland showed support for the health impairment process and the motivational process. Hakanen and his colleagues demonstrated that job demands predicted job burnout, which, in turn, predicted future depression, while job resources predicted employee engagement, which, in turn, predicted organisational commitment. Consistent with this, a cross-sectional study conducted by Bakker, Demerouti, De Boer and Schaufeli (2003) among 214 nutrition production employees in the Netherlands revealed that job demands predicted absence duration (i.e. indicator of health problems) through job burnout (i.e. exhaustion and cynicism), while job resources predicted absence frequency (i.e. indicator of motivation) through organisational commitment.

Interestingly, research has shown that both hindering and challenging job demands are positively related to job burnout. It is, however, important to note that the relationship between these demands and employee engagement is not the same. Hindering job demands are negatively related to employee engagement, whereas challenging job demands are positively related to employee engagement. For example, a cross-sectional study conducted by Ventura, Salanova and Llorens (2015) among 460 secondary school teachers, and 596 information and communication technology users, in Spain demonstrated that personal resources (i.e. professional self-efficacy) were negatively related to job burnout through hindering job demands (i.e. lack of autonomy, lack of social support and role conflict), while personal resources were positively related to employee engagement through challenging job demands (i.e. mental overload).

Furthermore, research has revealed support for the interaction effects between job demands and job resources. As an example, a cross-sectional study conducted by Xanthopoulou et al. (2007) among 747 home care professionals in the Netherlands showed support for the buffering effect job resources (i.e. autonomy, opportunities for professional development, performance feedback and social support) have on the influence of job demands (i.e. emotional demands and patient harassment) on job burnout. Similarly, a cross-sectional study conducted by Bakker, Van Veldhoven and Xanthopoulou (2010) among 12 359 employees from 148

heterogeneous organisations in the Netherlands demonstrated that job resources (i.e. autonomy, career opportunities, colleague support, leader support, learning opportunities, participation in decision-making, performance feedback and skill utilisation) predicted task enjoyment and organisational commitment, especially when job demands (i.e. emotional demands and workload) were high.

Following the inclusion of employee engagement as a mediator variable, the JD-R model was adapted to include personal resources. This amendment acknowledged that employee behaviour is a function of the work environment (i.e. job demands and job resources) and personal factors. Xanthopoulou, Bakker, Demerouti and Schaufeli (2007, p. 124) defined personal resources as “aspects of the self that are generally linked to resiliency and refer to individuals’ sense of their ability to control and impact on their work environment successfully”. Examples of personal resources include optimism, organisation-based self-esteem and self-efficacy.

Xanthopoulou et al. (2007) proposed that personal resources are malleable individual differences that are activated by job resources and positively related to employee engagement, particularly when job demands are high. It is, however, necessary to point out that five distinct ways have been used to integrate personal resources into the JD-R model (Schaufeli & Taris, 2014). The researcher will discuss each of these ways in the final section of the literature review (i.e. Section 2.6).

Research has shown partial support for the above-mentioned roles of personal resources. For example, a cross-sectional study conducted by Xanthopoulou et al. (2007) among 714 employees from an electrical engineering and electronics company in the Netherlands demonstrated that personal resources (i.e. organisation-based self-esteem and self-efficacy) mediated the relationship between job resources (i.e. autonomy, opportunities for professional development, social support and supervisory coaching), and employee engagement and exhaustion respectively. Xanthopoulou and her colleagues also found that personal resources influenced employees’ perception of job resources.

Limited research has, however, shown support for the proposed interaction effects between personal resources and job demands. As an illustration, a two-way study conducted by Xanthopoulou, Bakker and Fischbach (2013) among 163 employees from an electronics company in the Netherlands revealed that job demands (i.e. emotional demands and

dissonance) were negatively related to employee engagement when personal resources (i.e. self-efficacy) were low. Xanthopoulou and her colleagues also found that personal resources were positively related to employee engagement, especially when job demands were high. A diary study conducted by Bakker and Sanz-Vergel (2013) among 63 home healthcare nurses in the Netherlands demonstrated complementary results. Bakker and his colleague reported that weekly personal resources (i.e. optimism and self-efficacy) were positively related to weekly flourishing when weekly hindering job demands (i.e. work pressure) were low, and weekly personal resources were positively related to weekly employee engagement when weekly challenging job demands (i.e. emotional demands) were high.

Some researchers have proposed that the JD-R model may be adapted to include personal demands in addition to personal resources (Bakker & Demerouti, 2017). Barbier, Hansez, Chmiel and Demerouti (2013, p. 751) defined personal demands as “the requirements that individuals set for their own performance and behaviour that force them to invest effort in their work and are, therefore, associated with physical and psychological costs”. Examples of personal demands that may be relevant to the JD-R model include perfectionism, workaholism and performance expectations (i.e. expectations employees have of their job performance).

Research has shown preliminary support for the notion of personal demands. To take a case in point, a cross-sectional study conducted by Schaufeli, Bakker, Van Der Heijden and Prins (2009) among 2 115 junior doctors in the Netherlands demonstrated that personal demands (i.e. workaholism) explained incremental variance in job burnout (i.e. emotional exhaustion, depersonalisation and reduced medical accomplishment) and employee well-being (i.e. happiness, job satisfaction and perceived health), beyond job demands (i.e. emotional, mental and organisational demands). A cross-sectional study conducted by Guglielmi, Simbula, Schaufeli and Depolo (2012) among 224 school principals revealed similar results. Guglielmi and her colleagues reported that personal demands (i.e. workaholism) predicted job burnout.

Following the inclusion of personal resources, Tims, Bakker and Derks (2013) proposed that job crafting should also be integrated into the JD-R model to acknowledge the bottom-up perspective of job design in organisations. Wrzesniewski and Dutton (2001) coined the term job crafting in a theoretical study. Wrzesniewski and her colleague defined job crafting as the process whereby employees proactively shape their job by making changes in the number, scope and type of work tasks (i.e. task crafting), the appraisal of their work (i.e. cognitive crafting) and the quality and amount of interaction with other individuals at their work (i.e.

relationship crafting). By drawing on Wrzesniewski and Dutton's (2001) conceptualisation, Tims, Bakker and Derks (2012) defined job crafting as the process whereby employees proactively shape their job demands and job resources to optimise their work environment from the bottom-up. More specifically, Tims and her colleagues proposed that it involves proactively increasing job resources (i.e. social and structural resources) and challenging job demands and decreasing hindering job demands.

Research concerning job crafting has shown that the bottom-up adjustment of job demands and job resources play a substantial role within the parameters of the JD–R model. As an illustration, a validation study conducted by Tims et al. (2012) among 95 dyads from heterogeneous organisations in the Netherlands demonstrated that crafting behaviour aimed at increasing job resources (i.e. social and structural resources) and challenging job demands was positively related to employee engagement, employability and peer-ratings of in-role performance. Consistent with this, a longitudinal study conducted by Tims et al. (2013) among 288 employees from a chemical plant in the Netherlands revealed that crafting behaviour aimed at increasing challenging job demands was positively related to employee well-being. Tims and her colleagues also showed that crafting behaviour aimed at increasing job resources (i.e. social and structural resources) predicted increased job resources over time, which, in turn, predicted increased employee well-being (i.e. increased employee engagement and job satisfaction, and decreased job burnout). This suggests that as employees produce their own “gain spiral” by engaging in crafting behaviour, aimed at increasing job resources (i.e. social and structural resources) and challenging job demands. This is consistent with the Conservation of Resources (COR) theory (Hobfoll, 1989). By implication, reversed causal and reciprocal effects exist in the motivational process. Job resources are, therefore, not only positively related to employee well-being, but also to increased job resources over time.

Along the same lines, research has also revealed that reversed causal and reciprocal effects exist in the health impairment process. Job demands are, therefore, not only positively related to strain, but also to increased job demands over time. To take a case in point, a longitudinal study conducted by Ten Brummelhuis, Ter Hoeven, Bakker and Peper (2011) among 352 employees from a subsidiary of an international financial consultancy firm in the Netherlands showed that baseline job burnout predicted future job burnout through increased job demands (i.e. work-family barriers, work hours and work overload) and decreased job resources (i.e. autonomy, co-worker support, information, participation in decision-making and supervisor

support). A longitudinal study conducted by Demerouti, Le Blanc, Bakker, Schaufeli and Hox (2009) among 258 staff nurses in the Netherlands demonstrated comparable results. Demerouti and her colleagues found that job demands (i.e. patient demands, physical demands and workload) predicted future job burnout (i.e. emotional exhaustion and depersonalisation), which, in turn, predicted increased job demands. This suggests that burnt out employees produce their own “loss spiral” by perceiving and creating more job demands over time.

By drawing on the above-mentioned studies, Bakker and Costa (2014) proposed that employees produce their own “loss spiral” through self-undermining. Self-undermining refers to “behaviour that creates obstacles that may undermine performance” (Bakker & Costa, 2014, p. 115). Bakker and his colleague claimed that employees, who engage in self-undermining, experience increased strain. As a result, these employees will be more likely to communicate poorly and make mistakes at work, which, in turn, lead to increased job demands. Furthermore, employees, who experience increased strain, will be less likely to manage their emotions effectively and more likely to encounter conflicts at work. By implication, in addition to the “gain spiral” of job resources, employee engagement and job crafting, Bakker and Costa (2014) proposed that the “loss spiral” of job demands, exhaustion and self-undermining also exist. Regrettably, limited empirical evidence has shown support for this notion (Bakker & Demerouti, 2017).

Some researchers have proposed that the JD-R model may be adapted to include other individual strategies, apart from job crafting and self-undermining (Bakker & Demerouti, 2017). Demerouti (2015) described individual strategies as the methods or plans that employees use to achieve work goals or address work problems, which generally involve the planning or marshalling of job resources for their most efficient and effective use. Examples of individual strategies that may be relevant to the JD-R model include strength use and mobilising ego resources. Research has shown preliminary support for this notion. As an example, a diary study conducted by Van Woerkom et al. (2016) among 65 civil engineers from 43 heterogeneous organisations (e.g. building companies, engineering agencies and local governments) in the Netherlands demonstrated that weekly strengths use was positively related to weekly employee engagement through weekly self-efficacy.

Subsequently, Bakker (2015) proposed a multilevel version of the JD-R model (Figure 2.2) to capture the complexity of organisational phenomena. This version of the JD-R model acknowledges between-person and within-person variance. As opposed to previous versions of the JD-R model, which modelled all the variables at the between-person level of analysis (Figure 2.1), the multilevel version models the same variables, apart from personality and job performance, at the within-person level of analysis. This suggests that all the propositions that are subsumed under the JD-R model also occur at a transient level (e.g. momentary, daily or weekly).

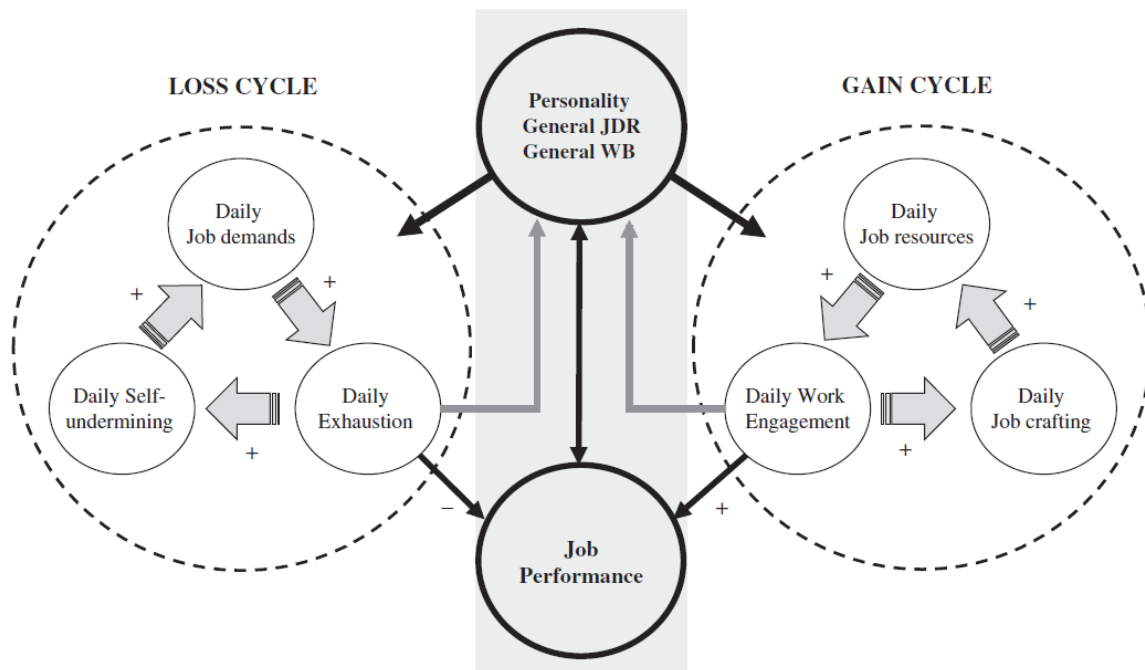


Figure 2.2 Multilevel model of employee well-being. Reprinted from “Towards a multilevel approach of employee well-being”, by A. B. Bakker, 2015, *European Journal of Work and Organizational Psychology*, 24(6), p. 841.

The multilevel version of the JD-R model adds two important features to previous versions of the JD-R model. Firstly, the multilevel version of the JD-R model makes a distinction between state-like variables (i.e. transient) and trait-like variables (i.e. relatively stable over time). It outlines how phenomena, at different levels of analysis, influence and interact with each other. Secondly, the multilevel version of the JD-R model accounts for personality (Bakker, 2015).

The researcher finds two aspects of the multilevel version of the JD-R model particularly interesting and relevant among public school teachers in the Western Cape Province. The first aspect relates to the phenomenological difference between trait-like and state-like variables.

The multilevel version of the JD-R model distinguishes between generalised work conditions (i.e. job demands and job resources) and dynamic work conditions that change over time. This corresponds with Daniels' (2006) notion that generalised perceptions of job characteristics should be distinguished from enacted job characteristics, as well as Ten Brummelhuis and Bakker's (2012) notion that volatile job demands and job resources should be distinguished from structural job demands and job resources. It acknowledges that high job demands may challenge employees when it persists for one or two days. However, chronic exposure to high job demands may become stressful, as it requires employees to invest increased effort over a prolonged period. From a teaching perspective, when students misbehave on a particular day, it may challenge teachers. However, when teachers are continuously exposed to student misbehaviour and classroom disruptions, it may incur strain. Another example of this may be brought forth by the absenteeism of a colleague. When teachers are required to take responsibility for another class on a particular day, because their colleague is absent, it may challenge teachers. However, once this becomes a recurring pattern, it may incur strain.

Along the same lines, the multilevel version of the JD-R model also distinguishes between general and daily employee engagement and exhaustion. Daily employee engagement (i.e. state-like employee engagement), characterised by momentary vigour, dedication and absorption, may disappear when triggers of daily employee engagement are no longer present (Bakker, 2014). In accordance with this, employees, who generally experience high levels of general employee engagement (i.e. trait-like employee engagement), may sometimes have “off days” on which they feel tired and cynical (vice versa). This explains why “good teachers” may struggle to perform their job well at times and why “bad teachers” may perform their job well at times.

The second aspect draws on the affective events theory (Weiss & Cropanzano, 1996). In accordance with other episodic approaches to work and affect (e.g. Beal, Weiss, Barros & MacDermid, 2005; Oerlemans & Bakker, 2013), this theory proposes that two parallel processes (i.e. between-person and within-person processes) influence employee behaviour. Weiss, Nicholas and Daus (1999) suggested that an aggregated score of momentary work affect predicts employees' general affect and relatively stable cognitive evaluations of their work. Along the same lines, Bakker and Costa (2014) argued that daily exhaustion and employee engagement feed back into the general levels of exhaustion and engagement that employees experience. Chronic exposure to daily job demands may, therefore, lead to high levels of

aggregated daily exhaustion, which, in turn, predicts higher levels of general exhaustion. In contrast, chronic exposure to daily job resources may lead to high levels of aggregated daily employee engagement, which, in turn, predicts higher levels of general employee engagement. These effects correspond with the allostatic load model of stress (McEwen & Stellar, 1993). From a teaching perspective, teachers, who are frequently exposed to daily job demands, may experience a high level of aggregated daily exhaustion and, as a result, experience a higher level of general exhaustion over time. In contrast, teachers, who are frequently exposed to daily job resources, may experience a high level of aggregated daily employee engagement and, as a result, experience a higher level of general employee engagement over time.

The JD-R model has attracted a great deal of interest since its introduction in 2001 (Demerouti et al., 2001) and is currently recognised as one of the leading theories of work motivation and job stress. Its central tenets have been successfully applied in several occupational settings, including the education context (e.g. Collie, Granziera & Martin, 2018; Dicke, Stebner, Linninger, Kunter & Leutner, 2018). Even so, Taris, Leisink and Schaufeli (2017) concluded that the potential of the JD-R model within the education context had not been fully exploited. In line with this, the researcher anticipates that the recently proposed multilevel version of the JD-R model will inspire future research endeavours, including the study. Drawing on the categories of meaning that are subsumed under the multilevel version of the JD-R model (Bakker, 2015), she will approach employee engagement among public school teachers in the Western Cape Province from the between-person, as well as the within-person, perspective.

It is important to clarify that the researcher will not replicate the multilevel version of the JD-R model in its proposed form (Figure 2.2) among public school teachers in the Western Cape Province. The JD-R model will instead be used as a meta-theoretical framework, thereby laying the theoretical foundation of the study. It will serve as a rubric for other theories that aid in fleshing out between-person and within-person variance in employee engagement. By extrapolating from Bronfenbrenner's (1977) ecological systems theory, the researcher will elevate the JD-R model to an ecologically focussed model that integrates higher levels of surrounding contexts (e.g. contextual demands and contextual resources). In addition, she will also move away from the narrowly defined meanings attached to the concepts of job demands and job resources associated with the JD-R model. In accordance with Bakker and Demerouti's (2017) recommendation, she will also examine micro-processes in the JD-R model by

accounting for narrower, job-specific constructs that are typically subsumed under these categories of meaning.

2.3.4. Employee engagement and job performance

Employee engagement is lauded as the key to organisational success. Much of its appeal has been derived from research that demonstrates its competitive advantage in terms of enhancing job performance and other bottom-line results (i.e. customer loyalty, customer satisfaction, productivity and profitability) (e.g. Albrecht, Bakker, Gruman, Macey & Saks, 2015; Macey et al., 2009). As an illustration, a meta-analysis conducted by Harter, Schmidt and Keyes (2002) among 7 939 business units from 36 heterogeneous organisations showed that business-unit employee engagement explained variance in business-unit outcomes (i.e. accidents, customer satisfaction, employee turnover, productivity and profit).

One organisational outcome that has captured the attention of researchers and practitioners alike is job performance. Research has offered substantial empirical evidence that indicates that employee engagement, at different levels of analysis, is closely related to job performance (e.g. Breevaart et al., 2015; Smith & Bititci, 2017). Dalal et al. (2012) remarked that it is one of the most salient predictors of job performance. It should, therefore, come as no surprise that it has been integrated into the JD-R model (Bakker, 2015). This corresponds with the researcher's decision to operationalise job performance as the dependent variable in the study.

From a theoretical perspective, the JD-R model suggests that motivation (e.g. commitment, employee engagement or flourishing) has a positive influence on job performance, while strain (e.g. disengagement, health complaints or job burnout) has a negative influence on job performance (Bakker & Demerouti, 2017). Bakker (2009) mentioned that engaged employees perform better compared to their counterparts for four reasons. Firstly, engaged employees often experience positive emotions, such as happiness, interest and enthusiasm (e.g. Schaufeli & Van Rhenen, 2006). The broaden-and-build theory proposes that positive emotions can broaden employees' momentary thought-action repertoires (i.e. broaden hypothesis) and build their resources (i.e. build hypothesis) (Fredrickson, 2004). This, in turn, enables them to deal with job demands and achieve work goals more effectively. Secondly, engaged employees are typically in better health, which allows them to devote all their energy to remain goal-oriented and focussed on work tasks. Thirdly, engaged employees are better equipped to look for feedback and support from their colleagues and supervisor to increase their job resources (i.e.

social resources). This produces the previously mentioned “gain spiral” of job resources, employee engagement and job crafting, which is consistent with the COR theory (Hobfoll, 1989). Lastly, engaged employees can transmit their engagement to colleagues, which improves team-level performance (e.g. Van Mierlo & Bakker, 2018).

The foregoing discussion illustrated that the positive association between employee engagement and job performance had received substantial empirical and theoretical support. In consideration of this, the researcher advocates that employee engagement plays an important role in addressing persisting challenges associated with unsatisfactory job performance among public school teachers in the Western Cape Province, as it explains incremental variance in job performance beyond other job attitudes (e.g. Christian et al., 2011; Dalal et al., 2012).

To be able to develop and implement human resource practices and interventions that foster employee engagement, the researcher suggests that it is important to identify which levers to pull and which buttons to press. Predictors of employee engagement provide valuable information that can be used to identify human resource practices and interventions that may be developed and implemented to foster employee engagement among public school teachers in the Western Cape Province. She will, therefore, discuss predictors of employee engagement below.

2.3.5. Predictors of employee engagement

Research has identified several predictors of employee engagement. At the most basic level, these predictors can be separated into two broad categories, namely person-specific factors and situational factors (Bakker, Demerouti & Sanz-Vergel, 2014). For this reason, the researcher will discuss predictors of employee engagement from an individual difference perspective and a situational perspective.

2.3.5.1. Individual Difference Perspective

Although few studies have investigated the relationship between individual differences and employee engagement, empirical evidence has shown that higher-order (i.e. personality traits), as well as lower-order (i.e. personal resources), person-specific factors influence the level of engagement that employees experience (Bakker et al., 2014).

Research has found that personality traits are closely related to employee engagement. This is consistent with the multilevel version of the JD-R model (Bakker, 2015). As an example, a cross-sectional study conducted by Akhtar, Boustani, Tsivrikos and Chamorro-Premuzic (2015) among 1 050 heterogeneous employees showed that some of the big five personality factors (i.e. agreeableness, conscientiousness, extraversion and openness), work-specific personality (i.e. adjustment, ambition and interpersonal sensitivity) and trait emotional intelligence predicted employee engagement. Consistent with this, a validation study conducted by Zecca et al. (2015) among 661 heterogeneous employees in Switzerland found that extraversion, conscientiousness and emotional stability predicted employee engagement. Along the same lines, a cross-sectional study conducted by Albrecht and Marty (2017) among 623 heterogeneous employees demonstrated that the HEXACO personality factors (i.e. agreeableness, conscientiousness, emotionality, extraversion, honesty-humility and openness to experience) predicted employee engagement.

Another personality factor that is related to employee engagement is proactive personality. As an illustration, a cross-sectional study conducted by Caniels, Semeijn and Renders (2018) among 259 employees of an internationally operating high-tech organisation in the Netherlands revealed that proactive personality predicted employee engagement. A cross-sectional study conducted by Van Der Westhuizen (2014) among 391 employees from audit firms in South Africa demonstrated similar results. Van Der Westhuizen found that proactive personality predicted employee engagement through job crafting.

In addition to personality traits, research has also found that personal resources are closely related to employee engagement and mediates the relationship between job resources, and employee engagement and exhaustion respectively. A case in point is a meta-analysis conducted by Mäkikangas, Feldt, Kinnunen and Mauno (2013). Mäkikangas and her colleagues demonstrated that employees, who have high personal resources (i.e. optimism and self-efficacy), “interpret their environment basically as benign. For example, they expect things to go well, they accept setbacks and failures as normal, and not as indicative of their own lack of worthiness, and they tend to see life as something that can be influenced and acted upon” (Mäkikangas et al., 2013, p. 134). This suggests that personal resources are concerned with employees’ sense of agency and ability to control their emotions and thoughts to actively engage with their work environment (Bandura, 1999).

Other personal resources that have been related to employee engagement are core self-evaluations, positive affect and sense of coherence. As mentioned, Judge et al. (1998, p. 18) described core self-evaluations as “fundamental, subconscious conclusions individuals reach about themselves, other people, and the world”. According to Judge, Erez, Bono and Thoresen (2002), these conclusions determine the extent to which employees believe in their agency, which, in turn, influences their behaviour. Employees, who have positive core self-evaluations (i.e. emotional stability, generalised self-efficacy, locus of control and self-esteem), believe in their agency. These employees are, therefore, more likely to appraise job demands positively and invest effort in their work. This, in turn, fosters employee engagement. Research has shown support for this notion. As an example, a cross-sectional study conducted by Tims and Akkermans (2017) among 707 heterogeneous employees in Germany and the Netherlands showed that core self-evaluations predicted employee engagement. A cross-sectional study conducted by Hentrich, Zimmer, Sosnowsky-Waschek, Gregersen and Petermann (2017) among 282 managers from different industries in Germany also showed that core self-evaluations predicted employee engagement.

Macey and Schneider (2008) mentioned that employees, who have high positive affectivity, are predisposed to experiencing activation, alertness and enthusiasm, which is characteristic of employee engagement (Schaufeli et al., 2002). Research has shown support for the positive association between positive affect and employee engagement. To take a case in point, a meta-analysis conducted by Christian et al. (2011) demonstrated that positive affect predicted employee engagement. Consistent with this, a cross-sectional study conducted by Mazzetti, Biolcati, Guglielmi, Vallesi and Schaufeli (2016) among 269 head physicians in Italy found that positive affect predicted job control through employee engagement.

Antonovsky (1987) described sense of coherence as a psychological, global orientation that determines the way that employees understand and appraise happening in their environment, which, in turn, influences their behaviour. Employees, who have a strong sense of coherence, can make sense of what is happening in their environment and appraise it as being manageable and meaningful. These employees are, therefore, less likely to develop job burnout and more likely to be engaged in their work. Research has shown support for the positive association between sense of coherence and employee engagement. As an illustration, a longitudinal study conducted by Vogt, Hakanen, Jenny and Bauer (2016) among 940 heterogeneous employees in Austria, Germany and Switzerland demonstrated that job resources (i.e. control, possibilities

for development, role clarity, social support by colleagues and social support by supervisor) predicted employee engagement through sense of coherence. A cross-sectional study conducted by Van Der Colff and Rothmann (2009) among 818 nurses from private and public hospitals in South Africa demonstrated comparable results. Van Der Colff and her colleague found that sense of coherence predicted employee engagement.

2.3.5.2. *Situational Perspective*

Research concerning predictors of employee engagement has shown that work conditions also influence the level of engagement that employees experience. In accordance with the JD-R model, these conditions can be separated into two broad categories, namely job demands and job resources. While job demands are the most salient predictors of job burnout (i.e. health impairment process), job resources are the most salient predictors of employee engagement (i.e. motivational process) (Bakker et al., 2014).

As mentioned, research has offered substantial empirical evidence to assert the salience of job demands and job resources in the prediction of job burnout and employee engagement respectively (e.g. Bakker et al., 2003; Hakanen et al., 2008). Although job demands are salient predictors of job burnout, it is important to recognise that not all job demands have been found to predict employee engagement consistently. Research has demonstrated that hindering job demands are negatively related to employee engagement, whereas challenging job demands are positively related to employee engagement (e.g. Ventura et al., 2015). Interestingly, research has also revealed that the positive association between job resources and employee engagement is more pronounced when job demands are high (e.g. Bakker et al., 2010).

In addition to job resources and job demands, research has shown that leadership signifies another salient predictor of employee engagement, especially ethical leadership, transformational leadership, empowering leadership and Leader-Member Exchange (LMX). Bakker and Demerouti (2017) mentioned that leaders influence the work environment of their followers and, as a consequence, the level of engagement that their followers experience. As an illustration, a cross-sectional study conducted by Engelbrecht, Heine and Mahembe (2017) among 204 heterogeneous employees in South Africa demonstrated that ethical leadership (i.e. moral management) was positively related to followers' employee engagement. Consistent with this, a diary study conducted by Tims et al. (2011) among 45 employees from 2 organisations in the Netherlands revealed that daily transformational leadership was positively

related to followers' daily employee engagement directly and indirectly through daily optimism. Along the same lines, a cross-sectional study conducted by Park, Kim, Yoon, and Joo (2017) among 285 employees from 8 organisations in South Korea found that empowering leadership was related to followers' employee engagement.

2.3.6. Concluding remarks

The purpose of the preceding section of the literature review was to link job attitudes, specifically employee engagement, to job performance (i.e. Section 2.3). To achieve this objective, the researcher gave a brief introduction to job attitudes. It was concluded that employee engagement is a salient predictor of job performance among public school teachers in the Western Cape Province. In accordance with this, it took centre stage, and relevant aspects of engagement literature were highlighted. Firstly, the meaning of employee engagement was clarified. Secondly, relevant theories of employee engagement were discussed. Thereafter, the relationship between employee engagement and job performance was considered. Lastly, predictors of employee engagement were mentioned.

In summary, the researcher will define employee engagement in accordance with Schaufeli et al. (2002, p. 74). As opposed to Schaufeli et al. (2002), she will, however, distinguish between trait-like and state-like employee engagement in the study. Furthermore, based on a review of prominent theories of employee engagement, the researcher will use the JD-R model as a meta-theoretical framework, thereby laying the theoretical foundation of the study. It will serve as a rubric for other theories that aid in fleshing out between-person and within-person variance in employee engagement. She contended that this approach promises to deliver an in-depth understanding of the engagement phenomenon and how it influences job performance among public school teachers in the Western Cape Province.

In line with the JD-R model, the subsequent sections of the literature review will provide an overview of variables on the basis of their inferred role as antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. Sections 2.4 through 2.6). These antecedents include demands (i.e. job and contextual demands), resources (i.e. job, contextual and personal resources) and coping strategies (i.e. job crafting).

2.4. Job Demands and Job Resources Associated with Teaching

During the past five decades, countless researchers in the field of industrial and organisational psychology have endeavoured to identify and understand what causes job stress and what motivates employees. In 2018, these questions continue to command the attention of researchers. Models that originate from job stress and work motivation literature have proven particularly useful in informing research in this regard.

Several models of job stress and work motivation are circulated throughout literature. Although early models of job stress and work motivation have produced valuable insights in identifying and understanding what causes job stress and what motivates employees, these models are not without problems. Probably the first problem that comes to mind relates to the fact that early models of job stress and work motivation largely disregard one another. Typically, early models of job stress overlook the motivating potential of resources, while early models of work motivation overlook the role of demands. The second problem relates to their simplicity. Early models propose that a limited number of variables can be used to describe the manifestation of job stress and work motivation. The third problem concerns the static nature of early models of job stress and work motivation. These models assume that specific variables can be applied to all occupational settings. Finally, early models do not account for the volatility and complexity of work in modern organisations (Bakker & Demerouti, 2014).

Fortunately, many of the problems associated with early models of job stress and work motivation were addressed with the introduction of the JD-R model (Demerouti et al., 2001). As mentioned, the basic premise of the JD-R model suggests that two parallel processes influence the level of strain (e.g. disengagement, health complaints or job burnout) or motivation (e.g. commitment, employee engagement or flourishing) that employees experience and, in turn, their behavioural outcomes (e.g. job performance) (Bakker & Demerouti, 2017). These processes are the health impairment process and the motivational process (Schaufeli & Bakker, 2004). It is useful to distinguish between two categories of work conditions, namely job demands and job resources, to make sense of these processes.

The following sections will take a closer look at the job demands and job resources associated with teaching. Firstly, relevant models of job stress and work motivation, which informed the development of the JD-R model and its conceptualisation of job demands and job resources, will be discussed. Secondly, critical comments will be made regarding unresolved issues

associated with the conceptualisation of job demands and job resources in the JD-R model. This will help to clarify the role and nature of job demands and job resources in the study. Thereafter, preliminary demand and resource dimensions among public school teachers in the Western Cape Province will be discussed.

2.4.1. Early models of job stress and work motivation

A number of early models of job stress and work motivation informed the development of the JD-R model and its conceptualisation of job demands and job resources. Bakker and Demerouti (2014) directed attention to the theoretical convergence observed between the JD-R model and four influential models of job stress and work motivation. These models are Karasek's (1979) demand-control model, Siegrist's (1996) effort-reward imbalance model, Herzberg's (1966) two-factor theory and Hackman and Oldham's (1976) JCM.

2.4.1.1. Demand-Control Model

Karasek (1979) introduced the demand-control model nearly four decades ago. This model concentrates on two psychosocial work conditions, namely job demands and job control. Job control, also referred to as decision latitude, denotes the extent to which employees have control over their work situation (i.e. decision authority) and the extent to which employees have the freedom to use their skills and competencies (i.e. skill discretion) (Häusser, Mojzisch, Niesel & Schulz-Hardt, 2010).

A cross-sectional study conducted by Karasek (1979) among employees from Sweden and the United States of America showed that employees, who were exposed to high levels of job demands and low levels of job control (i.e. high-strain situations), were disproportionately more likely to develop high levels of mental strain. In contrast, employees, who were exposed to moderate or even high levels of job demands, but had high levels of job control (i.e. challenge situations), showed much lower levels of mental strain. In consideration of this, Karasek (1979) proposed that jobs characterised by high levels of job demands and low levels of job control predict strain (i.e. high-strain jobs), whereas jobs characterised by moderate to high levels of job demands and high levels of job control predict task enjoyment, learning and personal growth (i.e. active-learning jobs). Although active-learning jobs are also intensively demanding, high levels of job control buffer the potentially negative influence that demands may have on the physical and psychological health outcomes of employees and organisational outcomes (Häusser et al., 2010).

Subsequently, social support was integrated into the demand-control model. This extension was informed by research that has found that high levels of social support might also buffer the negative influence that demands may have on the physical and psychological health outcomes of employees and organisational outcomes. The model was, therefore, renamed the demand-control-support model (Häusser et al., 2010)

2.4.1.2. *Effort-Reward Imbalance Model*

Along the same lines as the demand-control-support model, Siegrist's (1996) effort-reward imbalance model focusses on the development of ill health. The effort-reward imbalance model directs attention to the effort and reward structure of work. Effort consists of two dimensions, namely intrinsic work effort based on personal motivations (e.g. need for control) and extrinsic effort based on job demands and obligations (e.g. workload). Employers and society distribute occupational rewards (e.g. career opportunities, job security or money).

The effort-reward imbalance model is built on the premise that work benefits depend on a reciprocal relationship between work effort and occupational rewards, where suitable occupational rewards should compensate work effort. The lack of reciprocity between work effort and occupational rewards (i.e. high work effort and low occupational rewards) may result in job stress and, in turn, ill health. These instances are referred to as reciprocity deficits (Siegrist, 1996). This is consistent with the equity theory proposed by Walster, Walster and Berscheid (1978).

2.4.1.3. *Two-Factor Theory*

Herzberg's (1966) two-factor theory posits that two distinct sets of factors that influence employee motivation and satisfaction, namely hygiene factors and motivator factors. Hygiene factors, also known as dissatisfiers, lead to dissatisfaction when they are deficient. In contrast, motivator factors, also known as satisfiers, enhance job satisfaction when they are adequately fulfilled.

Satisfiers are typically intrinsic factors. These factors relate to the content of jobs and are administered mainly by employees (e.g. achievement, advancement, recognition, responsibility or nature of work). Dissatisfiers, on the other hand, are mostly extrinsic factors, which lie outside of employees' control (e.g. company policies, interpersonal relations, salary, supervision or working conditions) (Herzberg, 1966).

It is necessary to highlight that the Herzberg's (1966) two-factor theory does not define job satisfaction and dissatisfaction as two opposing ends of a single continuum. Within the parameters of the two-factor theory, no satisfaction is the opposite of job satisfaction - not dissatisfaction. Similarly, no dissatisfaction is the opposite of dissatisfaction - not job satisfaction. In other words, when extrinsic factors are not adequately fulfilled, it may lead to dissatisfaction, even if intrinsic factors are satisfied.

2.4.1.4. *Job Characteristics Model*

The JCM, which was introduced by Hackman and Oldham (1976), examines employee behaviour as a function of job characteristics and individual characteristics. As mentioned, this model focusses on five core job characteristics. These job characteristics are autonomy (i.e. independence and discretion to determine behaviour or actions at work), feedback (i.e. information provided about job performance), skill variety (i.e. breadth of skills used at work), task identity (i.e. opportunity to complete entire pieces of work) and task significance (i.e. influence of work activities on other individuals).

Hackman and Oldham (1976) suggested that the core job characteristics outlined in the JCM lead to critical psychological states (i.e. experienced meaningfulness of work, experienced responsibility for work outcomes and knowledge of the actual results of work activities), which, in turn, affects the physical and psychological health outcomes of employees and organisational outcomes (e.g. job performance). In addition, the JCM includes growth need strength as a moderator variable between critical psychological states and the physical and psychological health outcomes of employees and organisational outcomes.

2.4.1. Critical comments associated with the conceptualisation of job demands and job resources

Despite the enthusiasm of researchers and practitioners toward the JD-R model, it is not without problems. In acknowledgement of these issues, the researcher contends that it is important to express critical comments regarding unresolved issues associated with the conceptualisation of job demands and job resources in the JD-R model. In addressing these issues, the researcher will demonstrate the value of using the JD-R model as a meta-theoretical framework in the study.

2.4.1.1. *Epistemological Status of the Job Demands-Resources Model*

The first issue that evokes commentary relates to the epistemological status of the JD-R model. The JD-R model offers a sophisticated and parsimonious description of the way that job demands and job resources influence the physical and psychological health outcomes of employees and organisational outcomes. Its flexible, heuristic nature helps to ensure that it can be applied to all occupational settings (Bakker & Demerouti, 2017).

While the strength of the JD-R model lies in its flexible, heuristic nature, its epistemological status can also be regarded as a weakness. Bakker and Demerouti (2017, p. 278) remarked that “this flexibility could also be the Achilles’ heel of the model, as this comes at the cost of specificity and the quality of its predictions”. The JD-R model is, therefore, typically supplemented with additional explanatory theoretical frameworks to explain why specific job demands and job resources lead to specific physical and psychological health outcomes among employees and organisational outcomes. For example, the broaden-and-build theory (Fredrickson, 2004), the COR theory (Hobfoll, 1989), the demand-control model (Karasek, 1979) and the social cognitive theory (Bandura, 1999). These explanatory theoretical frameworks shed light on the underlying psychological mechanisms in the JD-R model.

The researcher acknowledges that the JD-R model offers limited insight into the underlying psychological mechanisms that are involved in the model. As opposed to the above-mentioned explanatory theoretical frameworks, it does not offer an explanation of the psychological role of demand and resource dimensions. The JD-R model merely highlights that job demands consume energy, which, in turn, lead to strain (i.e. health impairment process), whereas job resources possess motivational potential, which, in turn, lead to motivation (i.e. motivational process). For this reason, the researcher will primarily draw on Hobfoll's (1989) COR theory and Fredrickson's (2004) broaden-and-build theory to explain the psychological mechanisms that are involved in the model.

2.4.1.2. *Conceptual Difference between Job Demands and Job Resources*

The second issue relates to the conceptual difference between job demands and job resources. Schaufeli and Taris (2014) suggested that the conceptual difference between job demands and job resources is not as distinct as it may appear at first glance. To take a case in point, contemplate a situation characterised by the lack of job resources. In this situation, employees are required to mobilise additional resources. Considering that the JD-R model associates job

demands with the expenditure of effort, this leads to the paradoxical conclusion that the lack of job resources may be interpreted as the presence of job demands. It is, therefore, necessary to ask, “Why, despite this conceptual indistinctiveness, do job demands and job resources usually constitute two distinct factors?” (Schaufeli & Taris, 2014, p. 56).

As Schaufeli and Taris (2014) explained, job demands and job resources typically constitute two distinct factors, because of the way employees value it. Employees typically value job demands negatively and job resources positively. This corresponds with Hobfoll's (1989) COR theory. The COR theory posits that employees attribute a great deal of value to resource dimensions.

Considering the value-based nature of job demands and job resources, Schaufeli and Taris (2014) claimed that it is necessary to refine Demerouti et al.'s (2001) definition of these concepts. Schaufeli and his colleague proposed that job demands denote negatively valued physical, social or organisational aspects of the job that call for sustained physical, mental or psychological effort and are, as a result, associated with specific costs (i.e. physiological and psychological costs). In addition, Schaufeli and his colleague proposed that job resources refer to positively valued physical, social or organisational aspects of the job that satisfy and facilitate employees' psychological needs (i.e. growth, learning and personal development) and are instrumental in the reduction of job demands and their associated costs (i.e. physiological and psychological costs) or the achievement work goals.

The researcher supports the notion that job demands and job resources constitute two distinct factors. She does, however, agree that Demerouti et al.'s (2001) definition of job demands and job resources should be refined. In accordance with Schaufeli and Taris (2014), the researcher will define job demands as negatively valued physical, social or organisational aspects of the job, and job resources as positively valued physical, social or organisational aspects of the job in the study.

The Schaufeli and Taris' (2014) refined definition of job demands and job resources not only helps to distinguish between demand and resource dimensions, but also addresses the problem that not all job demands are equal. As mentioned, research has shown that the relationship between job demands and employee engagement may be either positive or negative (e.g. Ventura et al., 2015). To clarify these ambiguous results, researchers have opted to distinguish

between job demands that present either a challenge (i.e. challenging job demands) or a hindrance (i.e. hindering job demands) to employees.

In terms of Schaufeli and Taris' (2014) refined definition of job demands and job resources, hindering job demands are conceptualised as job demands, because it is valued negatively by employees, while challenging job demands are conceptualised as job resources, because it is valued positively by employees. The JD-R model's assumption that job resources (including challenging job demands) are positively related to employee engagement and negatively related to job burnout, therefore, remains unchanged.

It is necessary to mention that the researcher acknowledges that it is plausible that not all job resources are equal. Employees may appraise specific job resources negatively (e.g. job control). In these instances, employees may perceive specific job resources as threats rather than opportunities. However, she will not explore this notion in the study. The researcher recommends that future research should explore this notion.

2.4.1.3. Multilevel Issues with Job Demands and Job Resources

The third issue concerns the application of job demands and job resources to higher levels of aggregation. The JD-R model is fundamentally an individual level approach. There are, however, researchers who have applied selected variables, subsumed under the JD-R model, to higher levels of aggregation. For example, a mixed-method study conducted by Bakker, Van Emmerik and Van Riet (2008) among 176 employees from a temporary employment agency applied certain aspects of the JD-R model to employees in work teams. Other researchers have followed a similar approach (e.g. Bakker, Van Emmerik & Euwema, 2006; Xanthopoulou, Bakker, Demerouti & Schaufeli, 2009).

Notably, a number of researchers, who have applied selected variables, subsumed under the JD-R model, to higher levels of aggregation, have violated the compatibility principle. The compatibility principle dictates that all variables in a model should be operationalised at the same level of specificity (Ajzen, 2005). To put it differently, collective constructs (e.g. team demands or resources) should be examined in the context of other collective constructs (e.g. team engagement or performance). It should not be examined in the context of individual constructs (e.g. individual engagement or performance).

The researcher acknowledges the compatibility principle. All the variables included in the JD-R model, including job demands and job resources will, therefore, be operationalised at the same level of specificity in the study. Individual scores of job demands and job resources will be aggregated against individual scores of the psychological health outcomes among teachers. Even though it is plausible that the JD-R model may be applied at the supra-individual level, the researcher will not examine shared perceptions of demand and resource dimensions among public school teachers in the Western Cape Province in the study.

2.4.1.4. Dynamic Nature of Job Demands and Job Resources

The dynamic nature of job demands and job resources is the fourth issue that evokes commentary. Most research concerning the JD-R model has modelled all its variables at the between-person level of analysis. Researchers have, however, begun to show an interest in micro-processes in the JD-R model (Bakker & Demerouti, 2017). They have raised questions about short-term (e.g. momentary, daily or weekly), as well as longer-term (e.g. monthly, seasonally or yearly), fluctuations that occur in demand and resource dimensions and how these fluctuations influence the physical and psychological health outcomes of employees and organisational outcomes. As mentioned, a theory generating study conducted by Daniels (2006) distinguished between generalised perceptions of job characteristics and enacted job characteristics. Similarly, another theory generating study conducted by Ten Brummelhuis and Bakker (2012) distinguished between volatile job demands and job resources and structural job demands and job resources.

Research has shown that short-term and longer-term fluctuations in demand and resource dimensions influence the physical and psychological health outcomes of employees and organisational outcomes. As an example, a diary study conducted by Kühnei, Sonnentag and Bledow (2012) among 148 heterogeneous employees in Germany showed that daily job resources (i.e. being recovered in the morning, job control and psychological climate) influenced daily employee engagement over the period of a week. A diary study conducted by Xanthopoulou, Bakker, Demerouti and Schaufeli (2012) among 42 employees from three branches of a fast-food company in Greece demonstrated similar results. Xanthopoulou and her colleagues found that daily fluctuations in job demands and job resources influenced daily fluctuations in employee engagement. This corresponds with episodic approaches to work and affect (e.g. Beal et al., 2005; Oerlemans & Bakker, 2013). These approaches suggest that

employees' perception of specific work events lead to changes in their affective experiences and, in turn, explain within-person variance in behavioural outcomes.

In response to the above-mentioned studies, Bakker (2015) proposed the multilevel version of the JD-R model. As mentioned, this version of the JD-R model acknowledges between-person and within-person variance. As opposed to previous versions of the JD-R model, which modelled all the variables at the between-person level of analysis (Figure 2.1), the multilevel version recognises short-term and longer-term fluctuations in demand and resource dimensions and its influence on the physical and psychological health outcomes of employees and organisational outcomes.

The researcher recognises the dynamic nature of job demands and job resources. She will take the temporal aspect of job demands and job resources into consideration in the study.

2.4.1.5. Beyond Job Demands and Job Resources

The broad definition of job demands and job resources has allowed researchers to examine various demand and resource dimensions. Within the boundaries of the distinction between these work conditions, researchers have distinguished between different types of job demands and job resources. As an illustration, in a cross-sectional study conducted among 745 heterogeneous employees in Belgium, Van Den Broeck, Vansteenkiste, De Witte and Lens (2008) distinguished between emotional demands and physical demands. Similarly, in a cross-sectional study conducted among 1 264 heterogeneous employees, Peeters, Montgomery, Bakker and Schaufeli (2005) distinguished between quantitative, emotional and mental job demands.

While the above-mentioned and other distinctions have been valuable, it is evident that researchers have primarily focussed on demand and resource dimensions that arise from work conditions. A moment's thought helps one realise that environmental, political and social forces outside the work domain also contribute to the job demands and job resources that employees encounter in the workplace. For this reason, researchers have begun to acknowledge that demand and resource dimensions may also emerge from external environments.

An external environment that has received increased attention in the field of industrial and organisational psychology is the home environment. A number of researchers have directed attention to family demands and resources (e.g. Du, Derks & Bakker, 2018; Watanabe et al.,

2017). Ten Brummelhuis and Bakker (2012) remarked that Bronfenbrenner's (1977) ecological systems theory could be used as a conceptual framework to explain how contextual demands and contextual resources emanate from the home environment. Ten Brummelhuis and her colleague recommended that a systems approach, in line with Bronfenbrenner's (1977) ecological systems theory, offers valuable insight into the work-home interface.

The ecological systems theory explains human development by mapping the interaction between individuals and the environment that surrounds them. It refers to five nested and interconnected structures. These structures are unique to individuals' circumstances. The innermost structure represents individuals themselves. According to Bronfenbrenner (1977), individuals have personal attributes that invite, inhibit or prevent engagement and interaction with the environment that surrounds them. The remaining structures, ranging from the microsystem to the macrosystem, vary from proximal to distal settings that influence human development. The theory will be discussed in greater detail in Chapter 4.

In accordance with Ten Brummelhuis and Bakker (2012), the researcher acknowledges the importance of adopting a systems approach, in line with Bronfenbrenner's (1977) ecological systems theory, among public school teachers in the Western Cape Province. This approach promises to provide valuable insight into demands and resources that emanate from external environments. She will, therefore, consider contextual demands and contextual resources that emanate from external environments, apart from the school environment, in the study. This approach acknowledges that external environments also contribute to the demand and resource dimensions that teachers encounter.

2.4.1.6. Job Demands and Job Resources in the Education Context

As mentioned, the JD-R model can be applied to all occupational settings. Although research has demonstrated that some job demands and job resources are found in nearly all occupational settings, there are demand and resource dimensions that are unique to particular occupational settings. To take a case in point, a cross-sectional study conducted by Hakanen, Bakker and Demerouti (2005) among 1 919 dentists in Finland directed attention to the salience of positive patient contacts in dentistry. The researcher proposes that this notion applies to the education context. She will, therefore, primarily concentrate on job demands and job resources that are unique to the education context.

Klusmann, Kunter, Trautwein, Lüdtke and Baumert (2008) made a further distinction between demand and resource dimensions associated with teaching. Klusmann and her colleagues distinguished between general demands and resources and differential demands and resources. All teachers encounter general demands and resources. These dimensions relate to the core tasks and duties associated with teaching (e.g. lesson planning or marking assignments). Differential demands and resources, on the other hand, vary between classes and schools.

The researcher endorses the importance of distinguishing between general demands and resources and differential demands and resources in the South African education context. While there are core tasks and duties associated with teaching, she proposes that, in accordance with the national quintile system¹⁰ (Henderson, 2016), it is performed in different contexts with differential demands and resources. These differences may make the performance of core tasks and duties associated with teaching more or less demanding for public school teachers in the Western Cape Province. The researcher will, therefore, primarily concentrate on identifying demand and resource dimensions that are relevant to all public schools across South Africa, but manifest in different ways (i.e. differential demands and resources). This does not imply that general demands and resources will be excluded from the study.

Following the clarification of the role and nature of job demands and job resources in the study, it is important to consider which demand and resource dimensions are salient among public school teachers in the Western Cape Province. These demand and resource dimensions will be identified and discussed below.

2.4.2. Job demands and job resources among public school teachers in the Western Cape Province

The sources of strain and motivation among teachers are innumerable. Throughout literature, researchers have examined the influence of several demand and resource dimensions that are related to teaching. It is, therefore, important to ask, “Which demand and resource dimensions are the most salient among public school teachers in the Western Cape Province?”

¹⁰ The national quintile system was introduced by the Department of Basic Education to categorise all public schools into one of five quintiles. Public schools that do not charge school fees are categorised in terms of quintiles 1 or 2, while those charging school fees are categorised in terms of quintiles 3, 4 or 5 (Henderson, 2016).

To identify the most salient demand and resource dimensions among public school teachers in the Western Cape Province, the researcher will conduct initial (i.e. Part 1) and follow-up (i.e. Part 2) interviews in the qualitative phase of the study. However, to identify preliminary demand and resource dimensions for the purpose of the literature review, she conducted a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study.

Based on the information gathered during the above-mentioned processes, five preliminary demand and resource dimensions were identified. These dimensions are perceived workload, perceived organisational support, school facilities and teaching resources, student-teacher relationships and interactions and parental involvement. The inferred role of these demand and resource dimensions as antecedents of variance in employee engagement and job performance will be discussed below.

2.4.2.1. *Perceived Workload*

The concept of workload refers to the work tasks that have been assigned to employees (e.g. mental, physical or temporal). It is difficult to determine an objective measure of workload. For this reason, most researchers examine employees' perception of workload (e.g. Hakanen et al., 2008; Schaufeli & Bakker, 2004). Perceived workload is relative. It varies depending on the number or difficulty of work tasks that have been assigned to employees and their capacity to perform these work tasks adequately.

It is important to recognise that workload does not necessarily incur job stress. There are three aspects of workload that may incur job stress. The first aspect of workload that may incur job stress concerns the number of work tasks that have been assigned to employees in relation to their capacity (i.e. quantitative workload or overload). This is consistent with Meijman and Mulder's (1998) effort-recovery model. Meijman and his colleague proposed that workload becomes stressful when the number of work tasks that have been assigned to employees requires high effort over a prolonged period. The load reactions of prolonged expenditure of high work effort may incur job stress, especially when employees are unable to recover sufficiently. The second aspect relates to the difficulty of work tasks that have been assigned to employees in relation to their capacity (i.e. qualitative workload or overload). Lastly, workload may also incur job stress when the number or difficulty of work tasks that have been assigned to employees do not use their capacity (i.e. underload) (Katz & Kahn, 1978). The

researcher intends to focus on the role of quantitative workload or overload among public school teachers in the Western Cape Province.

Throughout literature, considerable attention has been given to the correlates and consequences of quantitative workload. A meta-analysis conducted by Bowling, Alarcon, Bragg and Hartman (2015) found that workload is negatively correlated with psychological and physical well-being (between $-.20$ and $-.30$) and affective organisational commitment ($-.11$). Bowling and his colleagues also reported that workload is positively correlated with turnover intention ($.16$) and absenteeism ($.07$). Along the same lines, a cross-sectional study conducted by Schaufeli and Bakker (2004) among 1 698 heterogeneous employees found that job demands (i.e. work overload and emotional demands) predicted job burnout. Similarly, a longitudinal study conducted by Hakanen et al. (2008) among 2 555 dentists in Finland demonstrated that job demands (i.e. physical work environment, quantitative workload and work contents) predicted job burnout.

2.4.2.1.1. Perceived workload in public schools

The researcher conceptualises perceived workload, specifically quantitative workload, as a general job demand among public school teachers in the Western Cape Province (Klusmann et al., 2008). She acknowledges that this general job demand may be classified as a challenging job demand, which motivates employees to perform their job optimally. However, in line with Meijman and Mulder's (1998) effort-recovery model, the researcher contends that prolonged exposure to quantitative workload may incur job stress, especially when teachers are unable to recover sufficiently. In these instances, perceived workload may be classified as a hindering job demand. This corresponds with research that has shown that job demands may simultaneously be perceived as both hindering and challenging job demands to varying degrees (e.g. Bakker & Sanz-Vergel, 2013; Webster et al., 2011)

It is necessary to point out that the researcher recognises that the quantitative workload of teachers may vary across time. Depending on the school calendar, teachers may have a higher or lower quantitative workload. As an example, teachers may have a higher quantitative workload during June and December examinations compared to the beginning of the third school term. Perceived workload may, therefore, be classified as a volatile job demand (Ten Brummelhuis & Bakker, 2012). However, based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study,

she concludes that the quantitative workload of public school teachers in the Western Cape Province is consistently high (despite short-term fluctuations). For this reason, it will be operationalised as a structural job demand (Ten Brummelhuis & Bakker, 2012).

On days when teachers experience high quantitative workload, they are required to mobilise additional resources. Even though days characterised by high quantitative workload may challenge teachers (i.e. challenging job demand), it may still be sustainable. However, when teachers are exposed to quantitative workload over a prolonged period, it may incur job stress. Teachers may experience lower levels of engagement due to elevated levels of job stress, which, in turn, may hinder their job performance (i.e. hindering job demand). In line with Hobfoll's (1989) COR theory, the researcher attributes these negative effects to the depletion of teachers' resources.

2.4.2.2. Perceived Organisational Support

The concept of perceived organisational support can be traced back to the early writings of Blau (1964) concerning the social exchange theory. Based on the norm of reciprocity (Gouldner, 1960), Blau suggested that social exchange relationships involve a series of interactions between two parties that generate a psychological contract of unspecified obligations. In other words, the support offered by one party in a social exchange relationship develops expectations of reciprocity by the other party. When a social exchange relationship conforms to the norm of reciprocity and patterns of exchange are perceived to be fair, both parties believe that the other party is not exploiting them. In these instances, both parties recognise that the support received in the present develops expectations that should be reciprocated in the future.

The social exchange theory provides a theoretical basis for various types of social exchange relationships. Apart from perceived organisational support, LMX signifies another social exchange relationship that has captured the attention of researchers in the field of industrial and organisational psychology. While perceived organisational support refers to social exchanges between employees and their employing organisation, LMX involves social exchanges between employees and their supervisor (i.e. leader) (Wayne, Shore & Liden, 1997). Nevertheless, the researcher will concentrate on perceived organisational support among public school teachers in the Western Cape Province.

In terms of perceived organisational support, the social exchange theory positions employing organisations at the centre of long-term mutual transactions between employers and employees. It proposes that employees develop perceptions of organisational support to meet their socio-emotional needs (i.e. affiliation, approval and social identity) and assess the benefits of increased work effort (Rhoades & Eisenberger, 2002). Employees are prepared to exchange their work effort and time in return for organisational support. When employing organisations support their employees by valuing their contribution to organisational goals and are concerned with their well-being, it cultivates a positive reciprocity dynamic. “Such need fulfilment produces a strong sense of belonging to the organisation, involving the incorporation of employees’ membership and role status into their social identity” (Rhoades & Eisenberger, 2002, p. 701).

Although the importance of perceived organisational support was brushed aside until the mid-1990s, it has received a great deal of attention in recent research (e.g. Ghislieri, Gatti, Molino & Cortese, 2017; Kurtessis et al., 2017). Much of its appeal is derived from research that demonstrates its association with favourable physical and psychological health outcomes among employees and organisational outcomes. As an example, a meta-analysis conducted by Rhoades and Eisenberger (2002) showed that perceived organisational support was positively related to a favourable individual (e.g. job satisfaction and positive mood) and organisational (e.g. affective commitment and job performance) outcomes. A cross-sectional study conducted by Saks (2006) among 102 heterogeneous employees demonstrated comparable results. Saks found that perceived organisational support predicted employee engagement. Along the same lines, a cross-sectional study conducted by Nazir and Islam (2017) among 410 employees from higher educational institutes of India found that perceived organisational support was positively related to both employee engagement and job performance.

2.4.2.2.1. Perceived organisational support in public schools

The researcher conceptualises perceived organisational support as a differential job resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. with the appointment of a new principal or heads of departments), she suggests that perceived organisational support remains relatively stable over time. For this reason, it will be operationalised as a structural job resource (Ten Brummelhuis & Bakker, 2012).

In line with Blau's (1964) early writings concerning the social exchange theory, when a school values the contribution of its teachers to organisational goals and is concerned with their well-being, it may cultivate a positive reciprocity dynamic between a school and its teachers. As a result, teachers may feel positive toward their school and motivated to invest more time and effort in their work to reciprocate the organisational support that they have received (Rhoades & Eisenberger, 2002). As teachers become more engaged in their work, their job performance may improve.

As long as both parties (i.e. a school and its teachers) conform to the norm of reciprocity and patterns of exchange are perceived to be fair, this dynamic may evolve into a trusting, loyal and committed relationship. This is consistent with Robinson, Perryman and Hayday's (2004) description of employee engagement. Robinson and her colleagues proposed that employee engagement signifies a two-way dynamic between organisations and employees.

2.4.2.3. School Facilities and Teaching Resources

School facilities (e.g. internet connectivity, laboratories, libraries or water and electricity) and teaching resources (e.g. electronic equipment, teaching aids, textbooks or stationery) influence the effectiveness of any school. It is, therefore, to be expected that research has shown that school facilities and teaching resources are determinants of student outcomes. For example, a meta-analysis conducted by Greenwald, Hedges and Laine (1996) found that school facilities (i.e. classroom and school size) predicted student achievement. Consistent with this, a cross-sectional study conducted by Uline and Tschannen-Moran (2008) among 1 134 teachers from 80 middle schools in the United States of America showed that school facilities (e.g. appearance of building and maintenance of facilities) predicted student achievement.

It is, however, important to recognise that students are not the only individuals affected by school facilities and teaching resources. School facilities and teaching resources are also determinants of teacher outcomes. As Doff (1988) explained, a three-way relationship exists between teachers, school facilities and teaching resources and students.

Research has shown that school facilities and teaching resources influence the physical and psychological health outcomes of teachers and organisational outcomes. For example, the above-mentioned cross-sectional study conducted by Uline and Tschannen-Moran (2008) among 1 134 teachers from 80 middle schools in the United States of America demonstrated that school climate (e.g. teacher professionalism) mediated the association between school

facilities (e.g. appearance of building and maintenance of facilities) and student achievement. In addition, a cross-sectional study conducted by Buckley, Schneider and Shang (2004) among 835 teachers in the United States of America found that school facilities influenced the retention decisions of teachers. Comparable results were reported by Schneider (2002) and Schneider (2003).

2.4.2.3.1. School facilities and teaching resources in public schools

The researcher conceptualises school facilities and teaching resources as a differential job resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. with the upgrading of school facilities), she suggests that school facilities and teaching resources remain relatively stable over time. For this reason, the researcher contends that it is a structural job resource (Ten Brummelhuis & Bakker, 2012).

When a school offers its teachers adequate teaching resources (e.g. electronic equipment, teaching aids, textbooks or stationery), it may enhance the effectiveness of classroom management and content delivery. As an example, when natural science teachers have access to adequate teaching resources (e.g. test tubes or microscopes), it is improbable that they will “over-teach” the content of textbooks. These teachers will be equipped to engage their students in the practical application of newly acquired knowledge. They will, therefore, be able to perform their work tasks effectively, thereby enhancing their job performance.

Along the same lines, when a school has adequate facilities, its teachers may be more motivated to perform their work tasks. They may be more likely to display enthusiasm toward students and teaching, and the willingness to go the extra mile - characteristic of employee engagement. As teachers become more engaged in their work, their job performance may improve.

2.4.2.4. Student-Teacher Relationships and Interactions

Classrooms represent one of the most influential contexts in which students participate. It should, therefore, come as no surprise that the salience of student-teacher relationships and interactions are widely researched in education literature (e.g. Pianta, Hamre & Allen, 2012; Sandilos, Rimm-Kaufman & Cohen, 2017). According to Hamre and Pianta (2001), positive student-teacher relationships and interactions provide students adequate support, without cultivating an unhealthy sense of dependency. These relationships and interactions are

characterised by the presence of trust, connectedness, mutual respect and positivity, and the absence of conflict.

In accordance with Bowlby's (1969) attachment theory, positive student-teacher relationships and interactions create supportive learning environments that encourage participation; is conducive to learning; and meet the needs of students (i.e. academic, developmental and emotional needs) (Hamre & Pianta, 2001). By drawing on the field of counselling psychology (e.g. Horvath & Bedi, 2002), these relationships cultivate a working alliance between students and teachers that provide the scaffolding for student development (i.e. affective, behavioural and cognitive development).

Research has shown support for the association between student-teacher relationships and interactions and student outcomes. To take a case in point, a longitudinal study conducted by Hamre and Pianta (2001) among 179 students from kindergarten to eighth grade found that kindergarten teachers' perception of their relationships and interactions with students influenced a number of student outcomes (e.g. academic grades, discipline and work habits). Similarly, a longitudinal study conducted by Curby, Rimm-Kaufman and Ponitz (2009) among 147 students from kindergarten to first grade demonstrated that the emotional support offered by first-grade teachers influenced student outcomes (i.e. growth in sound awareness). These results suggest that student-teacher relationships and interactions shape students' foundation for the long-term trajectory of school and eventually employment.

Notably, interpersonal relationships and interactions with students are a source of meaning, motivation and enjoyment that lies at the heart of teaching (e.g. Richardson & Watt, 2006; Watt & Richardson, 2007). As an illustration, a longitudinal study conducted by Shann (1998) among 92 teachers from 4 middle schools indicated that teachers ranked teacher-pupil relationships the highest overall in terms of importance and satisfaction out of fourteen key variables (e.g. teacher autonomy, job security, recognition of teacher achievement and school curriculum). It is, therefore, to be expected that research has also shown that interpersonal relationships and interactions with students are determinants of teacher outcomes (e.g. Klassen, Perry & Frenzel, 2012; Spilt, Koomen & Thijs, 2011).

Research has shown that student-teacher relationships and interactions influence the physical and psychological health outcomes of teachers. As an example, a cross-sectional study conducted by Klassen et al. (2012) among 409 teachers from elementary, middle and high

schools in Canada revealed that relatedness with students was positively related to workplace engagement and negatively related to emotional exhaustion. Klassen and his colleagues reported comparable results in another cross-sectional study conducted among 455 teachers from elementary, middle and high schools in Canada. Klassen et al. (2012) also demonstrated that relatedness with students was positively related to teaching enjoyment. Along the same lines, a qualitative study conducted by Hargreaves (2000) among 53 teachers from 15 elementary and high schools found that student-teacher relationships and interactions are a source of motivation and enjoyment among teachers.

2.4.2.4.1. Student-teacher relationships and interactions in public schools

The researcher conceptualises student-teacher relationships and interactions as a differential job resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). She recognises that the nature of interpersonal relationships and interactions with students may vary across time. Psychosocial factors may influence the attitudes and behaviour of students, which, in turn, influence student-teacher relationships and interactions. As an illustration, even though teachers may generally have positive interpersonal relationships and interactions with their students, tensions may arise when students have had a disagreement with their parents the previous evening. For this reason, the researcher contends that it is a volatile job resource (Ten Brummelhuis & Bakker, 2012).

The principle of emotional contagion suggests that the emotions of employees (i.e. positive emotions or negative emotions) produce corresponding changes in the emotional state of observers. Along the same lines, student-teacher relationships and interactions may lead to emotional contagion. When teachers have positive interpersonal relationships and interactions with their students that are characterised by the presence of trust, connectedness, mutual respect and positivity, and the absence of conflict, they may feel positive toward their students and motivated to invest more effort and time into their work in order to support student success. As teachers become more engaged in their work, their job performance may improve.

2.4.2.5. Parental Involvement

The interactions and experiences of students in their school and the surrounding community jointly shape their foundation for the long-term trajectory of school and eventually employment (Kim et al., 2012). Members of the community and the parents of students signify sources of

support for student success. Henderson and Mapp (2002) remarked that these individuals represent lifelong resources to students.

Community and parental involvement is a two-way street whereby the members of the community and the parents of students work with schools to create a network of shared responsibility for student success. It signals the extent to which members of the community and the parents of students have formed a constructive relationship with schools and assume shared responsibility for student success (Rudolph, 2009). It is necessary to point out that the researcher will concentrate on the salience of parental involvement in the study.

Research has shown that parental involvement is important across all learning contexts. It highlights that parental involvement influences student outcomes. As an illustration, a meta-analysis conducted by Hill and Tyson (2009) demonstrated that various types of parental involvement (i.e. academic socialisation, home-based parental involvement and school-based parental involvement) were positively related to student achievement, apart from helping with homework. Consistent with this, a cross-sectional study conducted by Rogers, Theule, Ryan, Adams and Keating (2009) among 231 students from elementary schools in Canada revealed that parental involvement predicted student achievement through academic competence.

It is, however, important to recognise that students are not the only individuals affected by parental involvement. The researcher proposes that parental involvement is also a determinant of teacher outcomes. She suggests that the image of isolated teachers working alone is a relic of the past. Even though teachers still play an indispensable role in student success, parental involvement signifies an invaluable resource for teachers. The involvement of parents in teaching and learning processes promises to enhance the functioning of schools, as it enables teachers to marshal much-needed support. By strengthening the capacity of teachers, parental involvement supports student success.

2.4.2.5.1. Parental involvement in public schools

By extrapolating from Bronfenbrenner's (1977) ecological systems theory, the researcher conceptualises parental involvement as a differential contextual resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. depending on the school calendar), she suggests that parental involvement remains relatively stable over time. For this reason, the researcher contends that it is a structural contextual resource (Ten Brummelhuis & Bakker, 2012).

By extrapolating from the social exchange theory (Blau, 1964), when the parents of students have formed a constructive relationship with schools and assume shared responsibility for student success, it may cultivate a positive reciprocity dynamic between teachers and the parents of students. This dynamic is characterised by a sense of commitment and obligation toward students and their parents. As a result, teachers may feel motivated to invest more effort and time into their work to support student success in order to reciprocate the commitment of their parents. As teachers become more engaged in their work, their job performance may improve.

As long as both parties (i.e. teachers and the parents of students) conform to the norm of reciprocity and patterns of exchange are characterised by the presence of shared responsibility and mutual respect, this dynamic may evolve into a trusting, loyal and committed relationship.

2.4.3. Concluding remarks

The researcher took a closer look at the demand and resource dimensions associated with teaching in the preceding section of the literature review (i.e. Section 2.4). Firstly, relevant models of job stress and work motivation that informed the development of the JD-R model and its conceptualisation of job demands and job resources were discussed. Secondly, critical comments were made regarding unresolved issues associated with the conceptualisation of job demands and job resources in the JD-R model. This clarified the role and nature of job demands and job resources in the study. Thereafter, preliminary demand and resource dimensions among public school teachers in the Western Cape Province were discussed. These dimensions are perceived workload, perceived organisational support, school facilities and teaching resources, student-teacher relationships and interactions and parental involvement.

In summary, the researcher will define job demands as negatively valued physical, social or organisational aspects of the job, and job resources as positively valued physical, social or organisational aspects of the job in the study. In addition, she will adopt a systems approach, in line with Bronfenbrenner's (1977) ecological systems theory, among public school teachers in the Western Cape Province. This approach acknowledges that external environments also contribute to the demand and resource dimensions that teachers encounter. She, therefore, proposed that contextual demands and contextual resources that emanate from external environments, apart from the school environment, should be included within the parameters of the JD-R model.

Considering the compatibility principle (Ajzen, 2005), the researcher will operationalise all the variables included in the JD-R model at the same level of specificity (i.e. individual level). Individual scores of demand and resource dimensions will, therefore, be aggregated against individual scores of employee engagement. She will also account for the distinction between general and differential demands and resources (Klusmann et al., 2008) and its variability (i.e. structural and volatile) (Ten Brummelhuis & Bakker, 2012).

As pointed out in the preceding section of the literature review, many public school teachers in the Western Cape Province are confronted with a number of demands, also known as stressors. Coping strategies play an important role in dealing with these constraints. According to Schaufeli and Bakker (2004), some employees can remain engaged in their work despite the demands that they encounter. In fact, these employees experience pleasure in dealing with demands, because they use effective coping strategies. For this reason, the researcher will examine preliminary coping strategies used by public school teachers in the Western Cape Province and their inferred role as antecedents of variance in employee engagement and job performance in the following section of the literature review (i.e. Section 2.5).

2.5. Coping Strategies Associated with Job Stress among Teachers

Stress is an inseparable part of human existence. It is widely recognised as an integral part of employees' work-life. Job stress has, therefore, received a great deal of attention in the fields of occupational health and industrial and organisational psychology. Countless researchers have examined the job stress phenomenon and its consequences for the physical and psychological health outcomes of employees and organisational outcomes. This begs the question, "Why is it important to return to this issue in the case of public school teachers in the Western Cape Province?"

The researcher suggests that there are a number of reasons why it is important to return to the issue of job stress among public school teachers in the Western Cape Province. The most fundamental reason relates to the potentially negative influence that demands may have on employee engagement and, in turn, job performance. Although other researchers have put this rationale forth, the significance of coping strategies in mastering, managing or tolerating demands has received proportionally less attention in the extant literature.

As mentioned in Chapter 1, cross-cultural research has shown that teaching is one of the occupations with the highest level of job stress (e.g. Dorman, 2003; Stoeber & Rennert, 2008).

Education literature has evidenced this trend among public school teachers in South Africa (e.g. Mokoka et al., 2012). Public school teachers in the Western Cape Province encounter a number of demands daily. It is, however, important to note that these demands are not inherently harmful. In fact, in any workplace a certain number of demands are healthy. These demands may encourage employees to perform their work tasks effectively. In these instances, demands may nurture the level of engagement that employees experience and, in turn, enhance their job performance. This corresponds with LePine et al.'s (2005) conceptualisation of challenge stressors.

At the same time, demands can also be harmful. When employees are unable to cope with the demands that they encounter, it may prove problematic. The inability to cope with demands may be due to its intensity or duration. This corresponds with LePine et al.'s (2005) conceptualisation of hindrance stressors. The researcher considers hindering job demands, excessive and repeated exposure to challenging job demands and the lack of job resources, as harmful demands. These demands may reduce the level of engagement employees experience and, in turn, hinder their job performance. While eliminating harmful demands from the workplace is probably the most effective strategy to reduce job stress among teachers, the researcher recognises that it is nearly impossible. Exposure to harmful demands is, to some extent, an unavoidable part of every teacher's work-life.

Coping strategies play an important role among teachers in dealing with demands that they encounter. Research has shown support for this notion. A case in point is a cross-sectional study conducted by Parker and Martin (2009) among 515 teachers from 18 schools in Australia. Parker and his colleague demonstrated that failure avoidance, self-handicapping, mastery orientation and planning predicted teacher well-being and employee engagement through buoyancy.

It is, however, important to recognise that not all coping strategies are equally effective. Although all coping strategies are aimed at dealing with demands, it does not necessarily signal that employees have adapted well to the demands created by stressful transactions between themselves and their work environment. Some coping strategies are maladaptive (i.e. ineffective coping strategies). While maladaptive coping strategies may temporarily reduce the level of job stress that employees experience, the source of job stress or related emotions may return to and often exceed the amount of job stress it incurred initially (Brown, Westbrook & Challagalla, 2005). As Schaufeli and Bakker (2004) explained, some employees can remain

engaged in their work despite the demands that they encounter. In consideration of this, the researcher advocates that research should work toward identifying effective coping strategies among public school teachers in the Western Cape Province.

The identification of effective coping strategies may be used to develop and implement human resource practices and interventions aimed at empowering public school teachers in the Western Cape Province with effective coping strategies. This promises to buffer the potentially negative influence that demands may have on employee engagement and, in turn, job performance among teachers. Failing to empower teachers with effective coping strategies may perpetuate the unsatisfactory state of public schooling in South Africa, as many teachers may continue to use ineffective coping strategies. The researcher will, therefore, take a closer look at the stress and coping literature below. This will enable her to identify effective coping strategies in order to inform human resource practices and interventions aimed at empowering teachers.

Despite the prominence of the stress and coping literature in the fields of occupational health and industrial and organisational psychology, it is not without problems. Firstly, defining the concept of job stress has proven problematic. Over time, it has acquired a variety of conceptual meanings. Secondly, there continues to be a lack of agreement among researchers on the theory that best explains the job stress phenomenon. Researchers approach the job stress phenomenon from different theoretical perspectives. Thirdly, the classification of coping strategies has been conceived differently. Various typologies of coping strategies have been proposed throughout the stress and coping literature. Lastly, researchers have not been able to agree on a unified definition of the resources that predict coping strategies.

The researcher will address the above-mentioned issues and focus on other relevant aspects of the stress and coping literature below. Firstly, the meaning of job stress will be clarified. Secondly, relevant theories of job stress will be discussed. Thirdly, the role and nature of coping strategies will be considered. Following this, preliminary coping strategies among public school teachers in the Western Cape Province will be identified. Then, the stability of coping strategies will be examined. In conclusion, predictors of coping strategies will be discussed.

2.5.1. Definition of job stress

Defining job stress has been problematic since its introduction. A large part of this problem can be attributed to the fact that the concept of stress originated from the fields of physics and biomedical science. The concept of stress was first introduced in the field of physics to analyse how structures should be designed to bear heavy loads and resist deformation from external forces (e.g. Hinkle, 1974; Mason, 1975). In this instance, stress denotes external forces that are applied to objects. The meaning of stress was adapted during its transition to the field of biomedical science. In the field of biomedical science, the concept of stress is used to analyse physiological processes that occur when organisms are exposed to external forces (e.g. Selye, 1976). Stress was, therefore, no longer regarded as external forces, but rather the physiological reaction toward demands that are imposed by external forces (Krohne, 2001).

Although researchers in the field of psychology have drawn on aspects of the above-mentioned definitions, they have defined stress differently. In the field of psychology, stress is typically defined as the interaction between individuals and their environment. Along the same lines, job stress refers to the interaction between employees and their work environment, along with causal antecedents, mediating processes and individual outcomes (Lazarus, 1991). The researcher will also define job stress as the interaction between employees and their work environment. She suggests that this definition acknowledges the complex and transactional nature of the interaction between employees and their work environment, which, in turn, determines the level of job stress that they experience.

Following the clarification of the meaning of job stress in the study, it is important to consider which theory will be used to frame this phenomenon among public school teachers in the Western Cape Province. Prominent theories of stress will, therefore, be discussed below.

2.5.2. Theories of job stress

Despite the prominence of the stress and coping literature in the fields of occupational health and industrial and organisational psychology, there continues to be a lack of agreement among researchers on the theory that best explains the job stress phenomenon. At the most basic level, theories of stress can be separated into four broad theoretical perspectives, namely the response, stimulus, cognitive-transactional and resource perspectives (Leduc, 2012). Instead of arbitrarily integrating diverse theories into an artificial taxonomy, the researcher proposes that

it is important to revisit the original writings of researchers who proposed the most influential theories of stress.

The response perspective of stress is represented by Selye's (1976) general adaptation syndrome. Selye distinguished between demands (i.e. stimuli) and stress (i.e. response). While he showed little interest in the nature of demands, the physiological response to demands captured his attention. In terms of Selye's conceptualisation of stress, employees' physiological response to demands denotes job stress. As an example, teachers experience job stress when they express that they feel stressed during a test week. This statement accounts for teachers' physiological response to the demands that they encounter.

According to Selye (1976, p. 64), employees' response to demands "consists of all the non-specifically induced changes in a biologic system". To put it differently, employees' response to demands involves a set of non-specific symptoms. It follows the same three-stage pattern (i.e. alarm reaction, exhaustion and resistance) irrespective of the nature of demands. This three-stage pattern is known as the general adaptation syndrome.

As opposed to the response perspective, the stimulus perspective directed attention to the identification and characteristics of demands. This perspective emerged from research conducted by Holmes and Rahe (1967) and Dohrenwend and Dohrenwend (1974). In terms of their conceptualisation of stress, the stimuli that employees encounter denote job stress. For example, teachers experience job stress when they express that teaching is a stressful occupation. This statement refers to the difficulty of teaching. It does not account for teachers' physiological response to the demands, but the stimuli itself.

Based on principles of the response and stimulus perspectives, Lazarus (1966) introduced the cognitive-transactional perspective. Since its introduction, the cognitive-transactional perspective has not only undergone further development and refinement (e.g. Lazarus & Folkman, 1984; Lazarus & Launier, 1978). It has evolved into a meta-theoretical systems approach to the job stress phenomenon. In this meta-theoretical systems approach, Lazarus (1991) captured the complex and transactional nature of the interaction between employees and their work environment, which, in turn, determines the level of job stress that they experience. He demonstrated that the underlying mechanisms of stress consist of causal antecedents (i.e. objective demands and personal resources), mediating processes (i.e.

cognitive appraisals and coping strategies) and individual outcomes (e.g. affect or psychological well-being).

Three assumptions accompany the cognitive-transactional perspective. Firstly, job stress arises from the transactions between employees and their work environment. These interactions exert a reciprocal influence on one another. Secondly, job stress and cognitive appraisals change continuously. Thirdly, the meaning of the transactions between employees and their work environment is derived from the underlying context. Several situational factors determine the level of job stress that employees experience and their resultant action tendencies (Lazarus, 1991).

Researchers have rarely examined all of the above-mentioned assumptions in a single study. Unidirectional, cross-sectional and context-free research designs are typically used to examine its subareas. The researcher contends that the mediating processes (i.e. cognitive appraisals and coping strategies) subsumed under Lazarus' (1991) cognitive-transactional perspective are particularly interesting, as it highlights the dynamic nature of job stress.

Lazarus (1991) integrated the concept of cognitive appraisal into the cognitive-transactional perspective, based on the idea that job stress is a function of employees' cognitive appraisal of the significance of demands to their work goals and well-being, as well as the perceived availability of resources to deal with demands. Lazarus distinguished between two forms of cognitive appraisal, namely primary and secondary appraisal. Both forms of cognitive appraisal occur simultaneously, but rely on different sources of information.

Primary appraisal, also known as demand appraisal, concerns the significance of demands to employees' work goals and well-being. During this appraisal, demands are categorised as either challenging, threatening or harmful. Challenging demands are experienced as pleasant, exciting and interesting. Employees feel confident in their ability to master these demands. In contrast, threatening demands are experienced negatively, as employees anticipate that these demands may incur harm. Harmful demands are also experienced negatively, as the harm employees anticipated has already occurred. Secondary appraisal, on the other hand, also known as resource appraisal, concerns the availability of resources to deal with demands. These cognitive appraisals jointly determine employees' resultant action tendencies (Lazarus, 1991).

Another perspective that is worth mentioning is the resource perspective. As opposed to the above-mentioned theoretical perspectives, the resource perspective is not primarily concerned

with demands that incur job stress. It directs attention to resources that help employees preserve their work goals and well-being despite the demands that they encounter (Leduc, 2012). In line with the resource perspective, Hobfoll's (1989) COR theory highlights the importance of resources in mastering, managing or tolerating demands. In fact, it suggests that resources are not only needed to master, manage or tolerate demands - they are significant in their own right.

The COR theory posits that job stress may occur in three contexts. Firstly, as opposed to the stimulus perspective, it assumes that the primary source of job stress relates to the loss of resources. Secondly, employees typically invest more resources when faced with demands. As a consequence, their resources may become depleted. It may incur job stress when subsequent resource gains do not follow the investment of their resources. Lastly, since resources preserve and protect other resources, job stress may also occur when resources are threatened (Hobfoll, 1989).

While the response and stimulus perspectives played an important role in the development of the stress and coping literature, the researcher contends that these perspectives provide a restricted understanding of the job stress phenomenon. They fail to recognise the complex and transactional nature of the interaction between employees and their work environment, as well as the significance of coping processes. The stimulus perspective fails to acknowledge that demands do not affect all employees equally, while the response perspective only concentrates on employees' physiological response to demands.

The researcher claims that the above-mentioned challenges are addressed by the Lazarus' (1991) cognitive-transactional perspective. She will, therefore, use the cognitive-transactional perspective as a conceptual framework to gain insight into the job stress phenomenon among public school teachers in the Western Cape Province. This approach acknowledges that job stress is a relational concept. What is more, it incorporates coping processes. The researcher will also refer to the Hobfoll's (1989) COR theory (i.e. resource perspective).

When demands cannot be eliminated from the workplace, it is important to identify which coping strategies can be used to master, manage or tolerate them. As mentioned, exposure to harmful demands is, to some extent, an unavoidable part of every teacher's work-life. It is, therefore, necessary to gain insight into the role and nature of coping strategies. For this reason, different types of coping strategies will be explored below.

2.5.3. Types of coping strategies

Coping strategies are cognitive and behavioural efforts that employees use to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment (Folkman & Lazarus, 1980). Throughout literature, researchers have identified countless coping strategies. Although many attempts have been made to reduce these cognitive and behavioural efforts into a parsimonious set of coping dimensions, coping strategies are not classified consistently. Most researchers suggest that coping strategies can be divided into two broad categories, namely attentive, confrontational problem-orientated coping and avoidant, palliative emotion-orientated coping (Krohne, 2001). This distinction corresponds with Folkman and Lazarus' (1980) typology of coping strategies. Folkman and her colleague proposed that coping strategies have two primary functions. It may be used to actively address and reduce the source of job stress itself (i.e. problem-orientated coping) or tolerate the source of the job stress, but attenuate emotions that it has provoked (i.e. emotion-orientated coping).

Notably, Folkman and Lazarus' (1980) typology of coping strategies is not accepted by all researchers. The fundamental problem with the distinction between problem-orientated coping and emotion-orientated coping lies in the fact that it is not always clear. To address this challenge, various researchers have proposed typologies that are more extensive. To take a case in point, Newton and Keenan (1985) identified five categories of coping strategies, including preparatory action, withdrawal and resentment. Similarly, Carver, Scheier and Weintraub (1989) identified fourteen categories of coping strategies, including turning to religion, positive reinterpretation and growth and mental disengagement.

Although there are many ways to classify coping strategies, for the purpose of the literature review, the researcher will draw on the distinction between engagement coping, or approach coping, and disengagement coping, or avoidance coping (e.g. Moos & Schaefer, 1993; Roth & Cohen, 1986). This decision was informed by information gathered during a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study.

Engagement coping involves problem-orientated coping and some types of emotion-orientated coping (e.g. acceptance, cognitive restructuring, emotional regulation and support seeking). These coping strategies denote cognitive and behavioural efforts that are aimed at actively

dealing with the source of job stress or related emotions by changing the nature of demands or employees' thoughts concerning demands. In contrast, disengagement coping involves avoidance, wishful thinking and denial. These coping strategies are often emotion-orientated, as they involve cognitive and behavioural efforts that are aimed at escaping threats or related emotions. As opposed to helping employees master, manage or tolerate the source of job stress or related emotions directly, these coping strategies prevent employees from addressing it. Disengagement coping is, therefore, generally ineffective (Carver & Connor-Smith, 2010).

With reference to the foregoing comments, the researcher claims that engagement coping may be effective in dealing with demands among public school teachers in the Western Cape Province. These coping strategies enable teachers to actively deal with the source of job stress or related emotions by changing the nature of the demands or their thoughts concerning the demands. As a result, teachers may be able to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment. Disengagement coping, on the other hand, may be ineffective in dealing with demands, as escaping threats or related emotions does not deal with the source of job stress or related emotions directly. The researcher proposes that these coping strategies may maintain or exacerbate the level of job stress that teachers experience.

Another point worth mentioning stems from the time-related classification of coping strategies. While the temporal aspect of coping strategies has largely been neglected in the extant literature, the researcher contends that it is important to acknowledge this aspect in order to gain a complete understanding of the job stress phenomenon among public school teachers in the Western Cape Province.

Demands are typically thought to reflect the past or ongoing harmful processes. It may, however, also exist in the future (i.e. distant or near). In consideration of this, it is possible to distinguish between proactive or preventative coping and reactive coping (e.g. Aspinwall & Taylor, 1997; Gan, Hu & Zhang, 2010). This corresponds with Lazarus' (1991) distinction between demands that are classified as harmful or threatening.

Reactive coping refers to cognitive and behavioural efforts that are used to deal with demands that have already been imposed. These coping strategies focus on risk management and recovery. Reactive coping may involve compensating for the loss of resources or alleviating the harm associated with demands. These coping strategies may also involve adjusting work

goals or searching for meaning in demands. Proactive or preventative coping, on the other hand, refers to future-oriented cognitive and behavioural efforts that are used to deal with demands before their occurrence. These coping strategies focus on goal management and preparation. Employees, who exhibit proactive or preventative coping, do not appraise future demands as threats. These employees instead appraise future demands as challenges (Greenglass & Fiksenbaum, 2009).

Even though research regarding reactive coping has provided valuable insight into the job stress phenomenon, the researcher contends that it is important to realise the significance of proactive or preventative coping among public school teachers in the Western Cape Province. Acknowledging the significance of proactive or preventative coping directs attention away from merely responding to demands once they have already occurred. This does not imply that unplanned stressful transactions between teachers and their work environment do not occur intermittently. It merely highlights the significance of coping strategies that teachers use to deal with demands before their occurrence.

Notably, the researcher recognises that proactive or preventative coping is a double-edged sword. It may not necessarily offer favourable outcomes. Proactive or preventative engagement coping may help teachers to evade demands or prepare for their occurrence. As a consequence, it is improbable that demands (even if they occur) will negatively influence the level of engagement that they experience and, in turn, their job performance. Proactive or preventative coping may, therefore, buffer teachers against the potentially negative influence that demands may have. Proactive disengagement coping, on the other hand, may exacerbate the level of job stress that teachers experience. These coping strategies do nothing to evade demands or prepare for their occurrence. As a result, it is probable that the eventual impact of demands will negatively influence the level of engagement that teachers experience and, in turn, their job performance.

Following the foregoing discussion concerning the role and nature of coping strategies, it is important to consider which coping strategies are salient among public school teachers in the Western Cape Province. These coping strategies will be identified and discussed below. As mentioned in Chapter 1, the study is located in the positive psychology approach, which concentrates on the conditions and processes that give rise to the optimal functioning of individuals, groups and organisations (Seligman & Csikszentmihalyi, 2000), specifically the salutogenic paradigm (Antonovsky, 1979). The salutogenic paradigm does not ignore the

negativity surrounding job stress. It acknowledges that demands are omnipresent and unavoidable in many instances. However, as opposed to focussing on weaknesses that exacerbate job stress, it highlights the significance of positive attributes and strengths that assist employees in coping with the demands that they encounter. In accordance with this, the researcher will concentrate on identifying engagement coping strategies that assist teachers in coping with the demands that they encounter.

2.5.4. Coping strategies among public school teachers in the Western Cape Province

To identify the most salient coping strategies among public school teachers in the Western Cape Province, the researcher will conduct initial (i.e. Part 1) and follow-up (i.e. Part 2) interviews in the qualitative phase of the study. However, to identify preliminary coping strategies for the purpose of the literature review, she conducted a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study.

Based on the information gathered during the above-mentioned processes, one preliminary coping strategy was identified. This coping strategy is job crafting. The inferred role of job crafting as an antecedent of variance in employee engagement and job performance will be deliberated below.

2.5.4.1. Job Crafting

More than four decades ago Kulik, Oldham and Hackman (1987) first introduced the concept of job crafting. Kulik and her colleagues described crafting behaviour as self-initiated changes that employees make to optimise the achievement of work goals and align job characteristics with their personal preferences, motives and passions. Two decades after its introduction, Wrzesniewski and Dutton (2001) coined the term job crafting in a theoretical study. In line with Kulik et al. (1987), Wrzesniewski and her colleague described job crafting as the process whereby employees redefine and reimagine their job design in personally meaningful ways.

Job crafting does not necessarily encompass the complete redesign of a job. Wrzesniewski and Dutton (2001) described it as the process whereby employees proactively shape their job through the modification of particular features of a job design from the bottom-up in radical or incremental ways, using tasks and relationships as raw materials. What is more, job crafting

does not occur once-off or in isolation. It denotes a continuous process (Berg, Dutton & Wrzesniewski, 2013) that is influenced by employees' career trajectories (e.g. Fried, Grant, Levi, Hadani & Slowik, 2007), as well as the social context surrounding their work (e.g. Berg, Wrzesniewski & Dutton, 2010).

As mentioned, Wrzesniewski and Dutton (2001) directed attention to three categories of crafting behaviour, namely task, relational and cognitive crafting. Task crafting refers to changes that are made to the set of work tasks prescribed by job descriptions. It may involve changing the number, scope or type of work tasks or changing how much attention, time and energy are allocated to work tasks. Cognitive crafting involves changing the way employees appraise their work. Relational crafting refers to changes that are made to the quality and amount of interaction with other individuals at work.

Tims et al. (2013) proposed that job crafting should also be integrated into the JD-R model to acknowledge the bottom-up perspective of job design in organisations. By drawing on Wrzesniewski and Dutton's (2001) conceptualisation, Tims et al. (2012) defined job crafting as the process whereby employees proactively shape their job demands and job resources to optimise their work environment from the bottom-up. More specifically, Tims and her colleagues proposed that it involves proactively increasing job resources (i.e. social and structural resources) and challenging job demands and decreasing hindering job demands.

Berg et al. (2013) stated that the motivation to engage in crafting behaviour arises from three individual needs. Firstly, employees proactively shape particular features of a job design to avoid the potentially negative influence of demands (i.e. hindering job demands). Secondly, employees engage in crafting behaviour to facilitate the expression of a positive sense of self and its confirmation by others. Thirdly, job crafting enables employees to fulfil their basic human need for connectedness with others. Taken together, Petrou, Demerouti, Peeters, Schaufeli and Hetland (2012) remarked that employees craft their job to create conditions that enable them to remain motivated and work healthily.

Research concerning job crafting has demonstrated its association with various favourable physical and psychological health outcomes among employees and organisational outcomes. As mentioned, a validation study conducted by Tims et al. (2012) among 95 dyads from heterogeneous organisations in the Netherlands demonstrated that crafting behaviour aimed at increasing job resources (i.e. social and structural resources) and challenging job demands was

positively related to employee engagement, employability and peer-ratings of in-role performance. Consistent with this, a longitudinal study conducted by Tims et al. (2013) among 288 employees from a chemical plant in the Netherlands revealed that crafting behaviour aimed at increasing challenging job demands was positively related to employee well-being. Tims and her colleagues also showed that crafting behaviour aimed at increasing job resources (i.e. social and structural resources) predicted increased job resources over time, which, in turn, predicted increased employee well-being (i.e. increased employee engagement and job satisfaction, and decreased job burnout).

2.5.4.1.1. Job crafting in public schools

The researcher conceptualises job crafting, specifically increasing job resources (i.e. social and structural resources) and challenging job demands, as a form of proactive or preventative engagement coping among public school teachers in the Western Cape Province (Carver & Connor-Smith, 2010). This coping strategy is considered adaptive, as it signals that teachers feel equipped to overcome difficulties or adapt to future demands that may arise from stressful transactions between themselves and their work environment (Brown et al., 2005).

As opposed to Tims et al. (2012), the researcher proposes that job crafting is not only used to increase job resources (i.e. social and structural resources) and challenging job demands among teachers. Considering the foregoing comments regarding the inclusion of contextual demands and contextual resources in the study, she contends that job crafting may also be used to increase contextual resources and decrease contextual demands.

As mentioned, employees produce their own “gain spiral” by engaging in crafting behaviour aimed at increasing job resources (i.e. social and structural resources) and challenging job demands. In consideration of this, when teachers proactively engage in crafting behaviour, specifically increasing job resources (i.e. social and structural resources) and challenging job demands, it may help them to evade demands or prepare for their occurrence. As a consequence, it is improbable that demands (even if they occur) will negatively influence the level of engagement that they experience and, in turn, their job performance. Job crafting will buffer them against the potentially negative influence that demands may have.

2.5.5. Stability of coping strategies

It is assumed that coping strategies have state-like (i.e. transient) and trait-like (i.e. relatively stable over time and situations) qualities. The state-like quality suggests that coping strategies are malleable. The trait-like quality, on the other hand, suggests that coping strategies remain relatively stable over time and situations (Nielsen & Knardahl, 2014).

Some researchers have shown that coping strategies are relatively stable over time and situations. A case in point is a longitudinal study conducted by Powers, Gallagher-Thompson and Kraemer (2002) among 51 caregivers of Alzheimer's patients. Powers and his colleagues reported that coping strategies (i.e. active cognitive coping, active behavioural coping and avoidance coping) that caregivers used to master, manage or tolerate the demands that they encountered, remained relatively stable over a two-year period. In accordance with this, Eisenbarth (2012) proposed that individuals have coping profiles (or use unique combinations of coping strategies). This, however, does not imply that coping strategies cannot be modified.

Although the above-mentioned studies have shown that coping strategies are relatively stable over time and situations, research has also found that it is not completely resistant to change. As an example, a longitudinal study conducted by Nielsen and Knardahl (2014) among 3 738 employees indicated that baseline distress predicted future coping strategies (i.e. engagement and disengagement coping) over a two-year period. Based on this finding, Nielsen and his colleague concluded that it is possible to develop and improve the way that employees cope with demands. This corresponds with the cognitive-transactional perspective, which highlights the state-like quality of coping strategies (Lazarus, 1991).

In view of the above-mentioned studies, it is important to ask, "Which factors influence the coping strategies that employees adopt to master, manage or tolerate the demands that they encounter?" This will inform future human resource practices and interventions aimed at empowering teachers with effective coping strategies. Predictors of coping strategies will, therefore, be discussed below.

2.5.6. Predictors of coping strategies

Research has identified a number of person-specific and situational factors that influence the coping strategies that employees use to deal with demands. At the most basic level, these

predictors can be subsumed under the umbrella term of resources¹¹. Resources function as moderator variables between demands and strain. It enables employees to master, manage or tolerate the demands that they encounter, thereby buffering the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance.

As mentioned, Hobfoll's (1989) COR theory highlights the importance of resources in mastering, managing or tolerating demands (i.e. resource perspective). Hobfoll defined resources as “those entities that are either centrally valued in their own right (e.g. close attachments, health, inner peace and self-esteem) or act as a means to obtain centrally valued ends (e.g. money, social support and credit)” (Hobfoll, 2002, p. 307). More specifically, he distinguished between four categories of resources, namely conditional resources (e.g. employment or social relationships), energy resources (e.g. knowledge or money), object resources (e.g. physical objects) and personal resources (e.g. self-efficacy or skills). The researcher claims that these categories of resources can be reduced to two broad dimensions, namely job resources (i.e. conditional resources and object resources in the workplace) and personal resources (i.e. energy resources and personal resources).

While the researcher supports the basic premise of the COR theory, which highlights the importance of resources in preserving employees' work goals and well-being despite the demands that they encounter, she suggests that Hobfoll's (1989) conceptualisation of resources is not without limitations. Firstly, Hobfoll (1989) proposed that researchers should take employees' actual set of resources into account, as opposed to the perceived availability of resources. He argued that this would paint an objective picture of the job stress phenomenon. Even though he attempted to compile an exhaustive list of resources to achieve this, it was virtually impossible. Secondly, Hobfoll assumed that all resources are equal. A moment's thought helps one realise that not all resources are equally relevant in dealing with all demands. In view of these limitations, the researcher contends that Hobfoll's (1989) conceptualisation of resources offers a generalised attempt to identify the relationships that exist between resources and demands.

¹¹ As mentioned, researchers have not been able to agree on a unified definition of the resources that predict coping strategies. To address this problem, the researcher will make critical comments regarding existing conceptualisations of resources below.

The JD-R model signifies another model that highlights the importance of resources in preserving employees' work goals and well-being despite the demands that they encounter. Along the same lines as the COR theory, it also distinguishes between job resources and personal resources (Bakker & Demerouti, 2017).

Even though the JD-R model has attracted a great deal of interest since its introduction in 2001 (Demerouti et al., 2001) and is currently recognised as one of the leading theories of work motivation and job stress, the researcher proposes that its conceptualisation of resources is also not without limitations. Firstly, the JD-R model also assumes that all job resources (i.e. social and structural resources) are equal. Secondly, its conceptualisation of personal resources subsumes a limited number of person variables (i.e. optimism, organisation-based self-esteem and self-efficacy) (Xanthopoulou et al., 2007). The researcher proposes that a more comprehensive definition of personal resources is required.

Lazarus' (1991) conceptualisation of personal resources within the parameters of the cognitive-transactional perspective offers a solution to the above-mentioned problem. Lazarus defined personal resources as "person variables which influence what we are able and unable to do as we seek to gratify needs, attain goals, and cope with the stresses produced by demands, constraints and opportunities" (Lazarus, 1991, p. 71). He explained that personal resources subsume various person variables, ranging from intelligence and education to social skills and physical attractiveness. The researcher endorses this conceptualisation of personal resources. She claims that it encompasses all the person variables that signal employees' ability to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment.

In line with foregoing comments regarding the inclusion of contextual demands and contextual resources in the study, the researcher adds that the concept of resources itself should also be broadened. In line with Bronfenbrenner's (1977) ecological systems theory, she contends that resources may also emanate from external environments, apart from the school environment. These resources are contextual resources (Ten Brummelhuis & Bakker, 2012). Therefore, in addition to job resources and personal resources, the researcher contends that contextual resources may also influence the coping strategies that employees adopt to master, manage or tolerate the demands that they encounter.

While resources influence the coping strategies that employees use to deal with demands, the researcher suggests that it is important to embrace the richness and complexity of the relationship between resources, demands and coping processes. Acknowledging the richness and complexity of this relationship promises to deliver an in-depth understanding of the job stress phenomenon among public school teachers in the Western Cape Province.

Lazarus' (1991) cognitive-transactional perspective suggests that the richness and complexity of the relationship between resources, demands and coping processes lie in the appraisal process. As mentioned, Lazarus proposed that job stress is an ongoing process, initiated and maintained by employees' cognitive appraisal of the significance of demands to their work goals and well-being, as well as the perceived availability of resources to deal with demands.

Some researchers have expressed criticism toward the cognitive-transactional perspective. As an illustration, Brief and George (1995) claimed that it fails to justify research on the actual conditions of a healthy work environment, which the COR theory manages to do (Hobfoll, 1989). While there is merit in this claim, the researcher argues that identifying the actual conditions of a healthy work environment among public school teachers in the Western Cape Province would be of little practical value. Admittedly, the ideal situation would be to provide all teachers with a healthy work environment. This is, however, nearly impossible. Even if the Department of Education managed to procure the resources required to provide all teachers with these conditions, it would be a lengthy process. What is more, the Department of Education would run the risk of not seeing an adequate return on its substantial investment.

Based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study, it is apparent that the way teachers perceive their work environment does not always offer an accurate reflection of the reality. Some teachers can master, manage or tolerate the demands that they encounter despite teaching in a work environment characterised by the lack of job resources (i.e. unhealthy work environment). Simultaneously, other teachers struggle to master, manage or tolerate the demands that they encounter despite teaching in a work environment characterised by an abundance of resources (i.e. healthy work environment).

The researcher attributes the above-mentioned ambiguous results to teachers' cognitive appraisal of demands and resources. She proposes that personal resources inform the appraisal process and the resultant action tendencies of teachers. Personal resources are, therefore,

instrumental in the subjective selection and use of coping strategies. For this reason, it is important to consider which personal resources inform teachers' cognitive appraisal of demands and resources. This promises to provide insight into the subjective selection and use of coping strategies that influence employee engagement and, in turn, job performance among public school teachers in the Western Cape Province.

2.5.7. Concluding remarks

The preceding section of the literature review took a closer look at the stress and coping literature (i.e. Section 2.5). It addressed issues related to the stress and coping literature and focussed on other relevant aspects of the job stress phenomenon. Firstly, the meaning of job stress was clarified. Secondly, relevant theories of job stress were discussed. Thirdly, the role and nature of coping strategies were considered. Following this, preliminary coping strategies among public school teachers in the Western Cape Province were identified. Then, the stability of coping strategies was examined. In conclusion, predictors of coping strategies were discussed.

Although researchers in the field of psychology have drawn on aspects of Hinkle (1974), Mason (1975) and Selyes (1976) definitions of stress, they have defined stress differently. In the field of psychology, stress is typically defined as the interaction between individuals and their environment. Along the same lines, job stress refers to the interaction between employees and their work environment, along with causal antecedents, mediating processes and individual outcomes (Lazarus, 1991). The researcher will also define job stress as the interaction between employees and their work environment.

Based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study, the researcher identified job crafting as a preliminary coping strategy among public school teachers in the Western Cape Province. She proposed that job crafting, specifically increasing job resources (i.e. social and structural resources) and challenging job demands, is a form of proactive or preventative engagement coping (Carver & Connor-Smith, 2010). This coping strategy is considered adaptive, as it signals that teachers feel equipped to overcome difficulties or adapt to future demands that may arise from stressful transactions between themselves and their work environment (Brown et al., 2005).

The researcher will adopt Lazarus' (1991) cognitive-transactional perspective as a conceptual framework to gain insight into the job stress phenomenon among public school teachers in the Western Cape Province. This approach acknowledges that job stress is a relational concept. What is more, it incorporates coping processes. The researcher will also refer to the Hobfoll's (1989) COR theory (i.e. resource perspective).

In line with the cognitive-transactional perspective (Lazarus, 1991), the researcher contended that the richness and complexity of the relationship between resources, demands and coping processes lie in the appraisal process among public school teachers in the Western Cape Province. Their cognitive appraisal determines whether demands are perceived as challenging, threatening or harmful and, in turn, the coping strategies (i.e. job crafting) that they adopt to master, manage or tolerate them.

The researcher proposed that personal resources are instrumental in the subjective selection and use of coping strategies. These resources inform the above-mentioned appraisal process and the resultant action tendencies of teachers. She will, therefore, provide an overview of the personal resources on the basis of their inferred role as antecedents of variance in coping strategies among public school teachers in the Western Cape Province below.

2.6. The Role of Personal Resources in Job Stress Phenomenon among Teachers

Although extensive research has focussed on identifying the demands that teachers encounter and the coping strategies that may be used to master, manage or tolerate them (e.g. Marais & Meier, 2010; Wolhuter & Russo, 2013), the stressful nature of teaching in South Africa still engenders concern. Developing and implementing human resource practices and interventions that may reduce job stress among teachers appear to be elusive. The researcher contends that this may be attributed to the fact that theories of stress typically fail to recognise the complex and transactional nature of the interaction between employees and their work environment, as well as the significance of coping processes. As mentioned, she will adopt Lazarus' (1991) cognitive-transactional perspective to address this challenge.

According to Lazarus (1991), irrespective of the terminology that is used to describe the job stress phenomenon, four primary concepts are always involved. These concepts are causal external agents, cognitive appraisals, coping strategies and stress reactions. Lazarus highlighted the significance of cognitive appraisals. He claimed that cognitive mediation lies at the heart of the job stress phenomenon.

Although other researchers have also directed attention to cognitive mediation (e.g. Arnold, 1960; Janis, 1958) before Lazarus (1966) introduced the cognitive-transactional perspective, its significance only got fully underway in his writings. His writings swept old epistemologies aside, convincing many researchers, who were still wedded to an input-output conceptualisation of stress (e.g. response and stimulus perspectives), that the appraisal process influences employees' perception of demands and their resultant action tendencies. The researcher supports this notion. She contends that cognitive appraisal is a universal process whereby teachers continuously evaluate the significance of what is happening in their work environment. Based on their appraisal of demands (i.e. challenging, threatening or harmful), they select and use coping strategies (i.e. job crafting) to master, manage or tolerate them.

A number of factors influence teachers' cognitive appraisal of what is happening in their work environment. To date, most researchers have concentrated on factors that are an impediment to job stress and coping processes among teachers (e.g. Kokkinos, 2007; Stoeber & Rennert, 2008). Little is known about the buffering effect that positively orientated factors may have on the appraisal process among public school teachers in the Western Cape Province. For this reason, the researcher decided to make a conscious shift away from studying weaknesses. In line with the positive psychology approach (Seligman & Csikszentmihalyi, 2000), specifically the salutogenic paradigm (Antonovsky, 1979), she will direct attention to positive attributes and strengths, such as personal resources, that assist teachers in coping with the demands that they encounter, by facilitating the subjective selection and use of effective coping strategies.

Traditionally, the field of psychology was ambivalent about individual differences. It was primarily concerned with the development of general laws that explain human behaviour. Variations around these laws were attributed to measurement error. Researchers have, however, begun to recognise the significance of individual differences in explaining human behaviour (e.g. Sonnentag & Frese, 2002; Sonnentag et al., 2008). The researcher also endorses the significance of individual differences in explaining employee behaviour. She claims that it is imperative to take individual differences in the availability of both external, as well as internal, coping resources into consideration in order to develop an in-depth understanding of coping behaviour.

Based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study, the researcher contends that internal coping resources are more salient than external coping resources among teachers. It should, therefore,

come as no surprise that many human resource practices and interventions that have been developed and implemented to reduce job stress among public school teachers have failed to meet their objectives. The researcher attributes the ineffectiveness of these human resource practices and interventions to the fact that it has primarily focussed on individual differences in external coping resources. She will, therefore, concentrate on identifying internal coping resources among public school teachers in the Western Cape Province.

Some researchers have expressed concerns regarding the positive psychology approach (e.g. Lazarus, 2003). Even so, the researcher contends that considerable value can be gained from fully understanding how some public school teachers in the Western Cape Province can transcend the challenges associated with teaching. It is, therefore, important to identify the most salient internal coping resources among public school teachers in the Western Cape Province and explore its effect on the job stress phenomenon. The information gathered through such research will inform the development and implementation of human resource practices and interventions aimed at enhancing the positive attributes and strengths that enable teachers to buffer the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance. As a result, teachers may cultivate a generation of committed and flourishing youth, who possess the knowledge, skills and abilities that individuals require to secure jobs, enter the labour market and excel in all spheres of life.

As mentioned, the initial JD-R model only accounted for two broad categories of work conditions, namely job demands and job resources (Demerouti et al., 2001). It has, however, been adapted to include personal resources (Xanthopoulou et al., 2007). This amendment acknowledged that employee behaviour is a function of the work environment (i.e. job demands and job resources) and personal factors.

The researcher will take a closer look at personal resources among public school teachers in the Western Cape Province below. Firstly, critical comments will be made regarding unresolved issues associated with the conceptualisation of personal resources in the JD-R model. This will help to clarify the role and nature of personal resources in the study. Thereafter, preliminary personal resources among public school teachers in the Western Cape Province will be discussed.

As mentioned, the researcher recognises that some researchers have proposed that the JD-R model may be adapted to include personal demands in addition to personal resources (Bakker

& Demerouti, 2017). However, in line with the foregoing discussion, negative attributes and weaknesses, such as personal demands, that prevent teachers from coping with the demands that they encounter, by facilitating the subjective selection and use of ineffective coping strategies, does not fall within the scope of the study.

2.6.1. Critical comments

Even though the inclusion of personal resources in the JD-R model was well-received by researchers and practitioners, it is not without problems. For this reason, the researcher will make critical comments regarding unresolved issues associated with the conceptualisation of personal resources in the JD-R model. She recognises that there is considerable overlap between the following discussion and the preceding section of the literature review regarding job demands and job resources among public school teachers in the Western Cape Province (i.e. Section 2.4). Nonetheless, she contends that it is important to revisit these aspects in order to clarify the role and nature of personal resources in the study.

2.6.1.1. Epistemological Status of the Job Demands-Resources Model

The first issue that evokes commentary relates to the epistemological status of the JD-R model. The JD-R model does not offer an explanation for the psychological role of personal resources. It merely highlights that personal resources, like job resources, possess motivational potential that leads to favourable physical and psychological health outcomes among employees and organisational outcomes (i.e. motivational process) (Xanthopoulou et al., 2007). This offers limited insight into underlying psychological mechanisms associated with personal resources.

As mentioned, the researcher will primarily draw on Hobfoll's (1989) COR theory and Fredrickson's (2004) broaden-and-build theory to explain the psychological mechanisms that are involved in the model.

2.6.1.2. Conceptualisation of Personal Resources

The second issue relates to the conceptualisation of personal resources. In terms of the JD-R model, Xanthopoulou et al. (2007, p. 124) defined personal resources as psychological characteristics or aspects of positive self-evaluations “that are generally linked to resiliency and refer to individuals’ sense of their ability to control and impact upon their environment successfully”. This conceptualisation of personal resources subsumes a limited number of

person variables (i.e. optimism, organisation-based self-esteem and self-efficacy). As mentioned, the researcher proposes that a more comprehensive definition of personal resources is required.

As mentioned, Lazarus' (1991) conceptualisation of personal resources within the parameters of the cognitive-transactional perspective offers a solution to the above-mentioned problem. Lazarus defined personal resources as “person variables which influence what we are able and unable to do as we seek to gratify needs, attain goals, and cope with the stresses produced by demands, constraints and opportunities” (Lazarus, 1991, p. 71). He explained that personal resources subsume various person variables, ranging from intelligence and education to social skills and physical attractiveness, which signal employees' ability to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment. The researcher will adopt Lazarus' (1991) conceptualisation of personal resources, as it encompasses all the person variables that signal teachers' ability to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment.

2.6.1.3. Role of Personal Resources

The third issue concerns the role of personal resources. As mentioned, five distinct ways have been used to integrate personal resources into the JD-R model (Schaufeli & Taris, 2014). Firstly, personal resources are antecedents of variance in employee engagement and job burnout. Taking into consideration that the JD-R model conceptualises personal resources as psychological characteristics or aspects of positive self-evaluations that are linked to resiliency and control, it is to be expected that personal resources are positively related to employee engagement and negatively related to job burnout. Research has revealed support for this notion. As an illustration, a longitudinal study conducted by Lorente, Salanova, Martínez and Schaufeli (2008) among 274 teachers from 23 secondary schools in Spain demonstrated that personal resources (i.e. emotional and mental competences) were positively related to employee engagement and negatively related to job burnout.

Secondly, personal resources are moderator variables between job demands and job resources, and employee engagement and job burnout. By definition, personal resources buffer the negative effect of job demands on job burnout and enhance the positive effect of job resources on employee engagement. A cross-sectional study conducted by Brenninkmeijer, Demerouti,

Le Blanc and Van Emmerik (2010) among 146 teachers from 7 secondary schools in the Netherlands found support for the moderating effect of personal resources. Brenninkmeijer and her colleagues reported that the positive association between job demands (i.e. interpersonal conflict and workload) on emotional exhaustion was especially noticeable among employees who had a strong prevention focus (i.e. concerned with obligations and responsibilities).

Thirdly, personal resources are mediator variables between job demands and job resources, and employee engagement and job burnout. As proposed by the Hobfoll's (1989) COR theory, resources accumulate over time. By implication, employees who work in a resourceful work environment characterised by an abundance of job resources may be more likely to develop feelings of confidence and optimism about the prospects of their future at work (i.e. personal resources). In turn, their personal resources may enhance the level of engagement that they experience. A number of studies have shown support for the mediating effect of personal resources. As an example, a cross-sectional study conducted by Van Den Broeck et al. (2008) found that the satisfaction of basic psychological needs (i.e. autonomy, belongingness and competence) mediated the association between job demands (i.e. emotional demands, physical demands, work-home interference and workload) and exhaustion, between job resources (i.e. opportunities for skill utilisation, positive feedback and task autonomy) and vigour, and between job resources and exhaustion.

Fourthly, personal resources influence employees' perception of job demands and job resources. In accordance with the social cognitive theory (Bandura, 1999), Judge, Bono and Locke (2000) argued that personal resources (i.e. core self-evaluations) determine employees' perception of job characteristics. This, in turn, influences the level of motivation (i.e. job satisfaction) that they experience and their job performance. Research has shown support for this notion. For example, as mentioned, a cross-sectional study conducted by Xanthopoulou et al. (2007) among 714 employees from an electrical engineering and electronics company in the Netherlands demonstrated that personal resources (i.e. organisation-based self-esteem and self-efficacy) influenced employees' perception of job resources (i.e. autonomy, opportunities for professional development, social support and supervisory coaching).

Lastly, personal resources act as a "third variable" (Schaufeli & Taris, 2014, p. 50). Considering that personal resources influence employees' perception of job demands and job resources and, in turn, the level of engagement that they experience, Schaufeli and Taris (2014, p. 50) proposed that these resources may function as a "third variable", explaining the

relationship between both. A cross-sectional study conducted by Bakker et al. (2010) among 3 753 academics in Australia partly investigated this notion. Bakker and his colleagues incorporated two core personality factors (i.e. extroversion and neuroticism) in the JD-R model. The results showed that neuroticism predicted the health impairment process directly and indirectly through its influence on job demands (i.e. work overload and work-home conflict), while extroversion predicted organisational commitment directly and indirectly through its influence on job resources (i.e. autonomy, fairness, job security and trust in heads of departments and managers).

The above-mentioned studies illustrate that personal resources can be integrated into the JD-R model in a number of ways. It can be integrated as antecedents of variance in employee engagement and job burnout, moderator or mediator variables, “third variable” (Schaufeli & Taris, 2014, p. 50) or any combination of these. Researchers have, however, not been able to reach consensus on where exactly personal resources fit in the JD-R model. A systematic study that tests and compares the different causal relationships that exist between personal resources, job resources, job demands and the physical and psychological health outcomes of employees and organisational outcomes has not been conducted. Different types of explanatory models are, therefore, used to specify the role of personal resources within the parameters of the JD-R model.

As mentioned, the researcher proposes that personal resources are instrumental in the subjective selection and use of coping strategies among public school teachers in the Western Cape Province. Along the same lines as Judge et al. (2000), she contends that personal resources influence teachers’ cognitive appraisal of what is happening in their work environment. Their cognitive appraisal determines whether demands are perceived as challenging, threatening or harmful and, in turn, the coping strategies (i.e. job crafting) that they adopt to master, manage or tolerate them.

The researcher recognises that there is currently no single best way of including personal resources in the JD-R model. In consideration of the above-mentioned studies, it is plausible that the role of personal resources in the job stress phenomenon among public school teachers in the Western Cape Province is more complex than it may appear at first glance. She anticipates that additional, unknown causal relationships and dynamic feedback loops also exist between the personal resources that were identified during a series of informal discussions with public school teachers prior to the commencement of the study and other latent variables of

interest. Participants will be required to explore all the possible causal relationships that exist among the personal resources and other latent variables of interest during the follow-up interviews (i.e. Part 2) in the qualitative phase in order to identify additional causal relationships and dynamic feedback loops.

2.6.1.4. *Multilevel Issues with Personal Resources*

The fourth issue relates to the application of personal resources to higher levels of aggregation. The JD-R model is fundamentally an individual level approach. However, as mentioned, some researchers have applied selected variables, subsumed under the JD-R model, to higher levels of aggregation (e.g. Bakker et al., 2006; Xanthopoulou et al., 2009). Similarly, personal resources may also be applied to higher levels of aggregation.

The researcher recognises that there is value in examining the role of personal resources that have been applied at higher levels of aggregation (e.g. Goddard, Hoy & Hoy, 2000; Skaalvik & Skaalvik, 2007). This may, however, violate the compatibility principle (Ajzen, 2005). To avoid such a violation, the researcher will operationalise all the variables included in the JD-R model, including personal resources, at the same level of specificity. Individual scores of personal resources will be aggregated against individual scores of job demands and job resources and the psychological health outcomes of teachers. She will not examine shared perceptions of personal resources among public school teachers in the Western Cape Province in the study.

2.6.1.5. *Dynamic Nature of Personal Resources*

The fifth issue regarding personal resources concerns its dynamic nature. The psychological characteristics or aspects of positive self-evaluations subsumed under Xanthopoulou et al.'s (2007) conceptualisation of personal resources are malleable (i.e. optimism, organisation-based self-esteem and self-efficacy). However, as mentioned, the researcher contends that it encompasses all the person variables that signal employees' ability to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment. Not all the person variables subsumed under this conceptualisation of personal resources are malleable.

It is certainly more feasible to target personal resources that can be enhanced through training and development interventions (i.e. malleable personal resources), as opposed to dispositional

personal resources that are relatively stable over time. The researcher, therefore, will primarily concentrate on personal resources that can be measured, developed and effectively managed among public school teachers in the Western Cape Province. This will enable her to recommend human resource practices and interventions aimed at enhancing the positive attributes and strengths that enable teachers to buffer the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance.

In one instance the researcher will, however, direct attention to a personal resource that is more dispositional (i.e. work locus of control). While it may be difficult to develop this personal resource, she contends that it is worthwhile to develop and implement training and development interventions that create awareness of the significance of this personal resource and how it influences the job stress phenomenon. Such interventions may help teachers gain insight into the cognitive and behavioural efforts that they use to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment.

Following the clarification of the role and nature of personal resources in the study, it is important to consider which psychological strengths are salient among public school teachers in the Western Cape Province. These personal resources will be identified and discussed below.

2.6.2. Personal resources among public school teachers in the Western Cape Province

Throughout literature, various personal resources have been linked to the job stress phenomenon. These personal resources include constructive thinking (e.g. Epstein & Meier, 1989), hardiness (e.g. Orr & Westman, 1990), learned resourcefulness (e.g. Rosenbaum, 1990) and sense of coherence (e.g. Antonovsky, 1979). It is, therefore, important to ask, “Which personal resources are the most salient among public school teachers in the Western Cape Province?”

To identify the most salient personal resources among public school teachers in the Western Cape Province, the researcher will conduct initial (i.e. Part 1) and follow-up (i.e. Part 2) interviews in the qualitative phase of the study. However, to identify preliminary personal resources for the purpose of the literature review, she conducted a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study.

Based on the information gathered during the above-mentioned processes, three preliminary personal resources were identified. These personal resources are learned resourcefulness, work locus of control and psychological capital. The inferred role of these personal resources as antecedents of variance in employee engagement and job performance will be discussed below.

2.6.2.1. *Learned Resourcefulness*

Rosenbaum (1990) proposed that individuals differ in terms of the extent to which they are able and willing to self-regulate the potentially negative influence that internal events (e.g. cognitions, emotions, mental processes or sensations) can have on the performance of their daily activities. By extrapolating from research conducted by Meichenbaum (1977), Rosenbaum introduced the concept of learned resourcefulness to distinguish between individuals in terms of their general repertoire of cognitive-behavioural self-control skills.

Rosenbaum (1990, p. 14) explained that learned resourcefulness denotes “an acquired repertoire of behavioural and cognitive skills with which the person is able to regulate internal events, such as emotions and cognitions that might otherwise interfere with the smooth execution of a target behaviour”. To put it differently, Rosenbaum described learned resourcefulness as a set of well-learned behaviours and cognitions that individuals use to self-regulate internal events and the expression of their personal feelings. This set of behaviours and cognitions are in constant interaction with their social and physical environment (Rosenbaum, 1990).

Learned resourcefulness signifies a different theoretical orientation compared to the work of Abramson, Seligman and Teasdale (1978) regarding learned helplessness. Abramson and her colleagues concentrated on individuals’ actual or perceived control over external events. Rosenbaum (1990), on the other hand, focussed on individuals’ actual or perceived control over internal events. Furthermore, learned helplessness is based on the traditional pathogenic approach, which is concerned with the origin of disease, whereas learned resourcefulness is based on the salutogenic paradigm (Antonovsky, 1979).

Learned resourcefulness is essential for maintaining a healthy lifestyle and attitude, as it influences the way that individuals respond to the demands that they encounter. Individuals, who have high learned resourcefulness, respond positively to demands. As opposed to giving up when faced with demands, these individuals motivate themselves in positive ways, use problem-solving strategies to master, manage or tolerate demands and, when needed, delay

pleasurable activities. It is, therefore, probable that they will be more likely to cope with the demands that they encounter. In contrast, individuals, who have low learned resourcefulness, respond negatively to demands. These individuals become frustrated and demotivated when faced with demands. They give up easily (Rosenbaum & Jaffe, 1983).

While the researcher did not find empirical evidence for the association between learned resourcefulness, and employee engagement and job performance respectively, she anticipates that teachers, who have high learned resourcefulness, will be more likely to remain engaged in their work and perform their job optimally compared to their counterparts. The researcher proposes that the self-control skills (Rosenbaum, 1990) and self-efficacy expectancy (Akgun & Ciarrochi, 2003) of these teachers will assist them in coping with the demands that they encounter, by facilitating the subjective selection and use of effective coping strategies. Research has shown partial support for this notion. A case in point is a cross-sectional study conducted by Wang et al. (2015) among 154 psychiatric nurses in Taiwan. Wang and her colleagues found that job stress was positively related to depression and negatively related to learned resourcefulness.

Research has indicated that learned resourcefulness can be developed through training and development interventions. Even though it is relatively stable by early adulthood, appropriate training and development interventions can be used to cultivate learned resourcefulness. For example, an intervention study conducted by Gonzalez, Polansky, Lippa, Gitlin and Zauszniewski (2014) among 102 caregivers of Alzheimer's patients found that caregivers, who attended six resourcefulness training sessions of two hours each over a period of six weeks, were more likely to report high learned resourcefulness skills compared to caregivers who were part of the control group. An intervention study conducted by Ronen and Rosenbaum (2010) among ninth-grade students from 30 schools in Israel demonstrated comparable results.

2.6.2.1.1. Learned resourcefulness among public school teachers

The researcher contends that learned resourcefulness is a personal resource among public school teachers in the Western Cape Province. Along with other personal resources (i.e. work locus of control and psychological capital), it influences teachers' cognitive appraisal of what is happening in their work environment. Their cognitive appraisal determines whether demands are perceived as challenging, threatening or harmful and, in turn, the coping strategies (i.e. job crafting) that they adopt to master, manage or tolerate them.

The researcher proposes that teachers, who have high learned resourcefulness, will be more likely to respond positively to demands. These teachers will be more likely to control the way that they respond to the demands that they encounter (i.e. self-control skills) (Rosenbaum, 1990) and believe in their capacity to deal with demands (i.e. self-efficacy expectancy) (Akgun & Ciarrochi, 2003). When faced with demands, teachers, who have high learned resourcefulness, may steer toward positive thinking, use problem-solving strategies to master, manage or tolerate demands and, when needed, delay pleasurable activities (Rosenbaum & Jaffe, 1983). As opposed to becoming frustrated and demotivated, they may actively deal with the source of job stress or related emotions by changing the nature of the demands or their thoughts concerning the demands.

In consideration of the foregoing comments, the researcher proposes that teachers, who have high learned resourcefulness, will be more likely to adopt engagement coping, specifically job crafting, when faced with demands (Carver & Connor-Smith, 2010). This promises to enable them to master, manage or tolerate the demands that they encounter. The researcher, therefore, anticipates that teachers, who have high learned resourcefulness, will be more likely to remain engaged in their work and perform their job optimally despite the demands that they encounter.

As mentioned, research has shown that learned resourcefulness can be developed through training and development interventions (e.g. Gonzalez et al., 2014; Ronen & Rosenbaum, 2010). The researcher proposes that it is, therefore, worthwhile to develop and implement training and development interventions aimed at enhancing learned resourcefulness among public school teachers in the Western Cape Province, as it may buffer the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance.

The foregoing discussion suggests that learned resourcefulness determines the subjective selection and use of effective coping strategies among public school teachers in the Western Cape Province. The researcher further anticipates that additional, unknown causal relationships and dynamic feedback loops also exist between learned resourcefulness and other latent variables of interest. Additional causal relationships and dynamic feedback loops associated with personal resources will be explored during the follow-up interviews (i.e. Part 2) in the qualitative phase of the study.

2.6.2.2. *Work Locus of Control*

The concept of locus of control originated from the social cognitive theory (Bandura, 1999) in an attempt to understand why individuals respond to reinforcement or outcomes in a predictable manner. Rotter (1966) proposed that locus of control is a generalised expectation that indicates the degree to which individuals exercise control over their environment. In line with Rotter's (1966) conceptualisation, Lefcourt (1966) described locus of control as the extent to which individuals accept personal responsibility for the events in their lives.

Rotter (1966) highlighted the difference between an internal locus of control and an external locus of control. This distinction “refers to the degree to which persons expect that a reinforcement or an outcome of their behaviour is contingent on their own behaviour or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck or fate, is under the control of powerful others, or is simply unpredictable” (Rotter, 1990, p. 489). Individuals, who have an internal locus of control, also known as internals, believe that reinforcement or outcomes depend on their behaviour or personal characteristics. In contrast, individuals, who have an external locus of control, also known as externals, believe that reinforcement or outcomes are unpredictable. These individuals believe that reinforcement or outcomes are coincidental, under the control of influential individuals or unpredictable.

Throughout literature, many researchers have deliberated over the inherent nature of locus of control. Even though Rotter's (1966) conceptualisation of locus of control implies that it is a dispositional trait, he showed some support for the interactionist perspective. The interactionist perspective suggests that human behaviour cannot be generalised across all situations. In response to this, researchers introduced domain-specific conceptualisations of locus of control, such as health locus of control (Wallston, Wallston & DeVellis, 1978) and work locus of control (Spector, 1988). In accordance with the interactionist perspective, domain-specific conceptualisations of locus of control suggest that individuals can have an external locus of control in one sphere of their life and an internal locus of control in another sphere.

Spector (1988) introduced the concept of work locus of control. This domain-specific conceptualisation of locus of control describes the perception employees have of the relationship between their behaviour or personal characteristics and reinforcement or outcomes at work. Employees, who have an internal work locus of control, believe that reinforcement or

outcomes at work depend on their behaviour or personal characteristics, while employees, who have an external work locus of control, believe that reinforcement or outcomes at work are coincidental, under the control of influential individuals or unpredictable.

Interestingly, research has demonstrated higher correlations between work locus of control and the physical and psychological health outcomes of employees and organisational outcomes, compared to generalised locus of control. To take a case in point, a cross-sectional study conducted by Maram and Miller (1998) among 113 employees from an assurance organisation in South Africa found that LMX mediated the relationship between work locus of control and organisational commitment. These results correspond with the results obtained by Kinicki and Vecchio (1994) regarding generalised locus of control among 138 loan officers from 24 bank branches. Higher correlations were, however, reported in the study conducted by Maram and Miller (1998) compared to the correlations reported in the study conducted by Kinicki and Vecchio (1994). A meta-analysis conducted by Wang, Bowling and Eschleman (2010) also demonstrated that generalised locus of control yielded higher correlations with general criteria, while work locus of control was able to predict employee behaviour with more accuracy. For this reason, the researcher will direct attention to the significance of work locus of control among public school teachers in the Western Cape Province, as opposed to generalised locus of control.

As mentioned, employees, who have an internal work locus of control, believe that reinforcement or outcomes at work depend on their behaviour or personal characteristics (Spector, 1988). These employees accept personal responsibility for reinforcement or outcomes at work (Lefcourt, 1966). When faced with demands, they actively deal with the source of job stress or related emotions by changing the nature of the demands or their thoughts concerning the demands (Wilski, Chmielewski & Tomczak, 2015). In contrast, employees, who have an external work locus of control, believe that reinforcement or outcomes at work are coincidental, under the control of influential individuals or unpredictable (Spector, 1988). These employees do not accept personal responsibility for reinforcement or outcomes at work (Lefcourt, 1966). When faced with demands, they do not deal with the source of job stress or related emotions (Wilski et al., 2015).

Research has shown that internal work locus of control is associated with a number of favourable physical and psychological health outcomes among employees and organisational outcomes (e.g. Wilski et al., 2015; Zigarmi, Galloway & Roberts, 2018). In view of this, the

researcher anticipates that teachers, who have an internal work locus of control, will be more likely to remain engaged in their work and perform their job optimally compared to their counterparts. Research has demonstrated partial support for this notion. A meta-analysis conducted by Wang et al. (2010) revealed that work locus of control predicted job performance. While the researcher did not find empirical evidence for the association between work locus of control and employee engagement, Wang and his colleagues also found that work locus of control predicted other job attitudes (e.g. affective commitment, continuance commitment and global job satisfaction).

As mentioned, Rotter's (1966) conceptualisation of locus of control implies that it is a dispositional trait. In line with this, it is often assumed to be relatively stable over time. However, based on analyses conducted on data from the Household, Income and Labour Dynamics Survey in Australia, Cobb-Clark and Schurer (2011, p. 1) concluded that “there is no evidence that locus of control is truly time-invariant”. Research has shown support for this notion (e.g. Wu, Griffin & Parker, 2015). As an illustration, a longitudinal study conducted by Anderson (1977) among 90 small business owners demonstrated that work experiences influenced the locus of control of business owners. More specifically, Anderson reported that improved firm performance was positively related to internal locus of control. Similarly, analyses conducted by Andrisani and Nestel (1976) on data from the National Longitudinal Survey in the United State of America's representative national sample of middle-aged males showed that improved occupational status was positively related to internal locus of control.

2.6.2.2.1. Work locus of control among public school teachers

The researcher contends that work locus of control is a personal resource among public school teachers in the Western Cape Province. Along with other personal resources (i.e. learned resourcefulness and psychological capital), it influences teachers' cognitive appraisal of what is happening in their work environment. Their cognitive appraisal determines whether demands are perceived as challenging, threatening or harmful and, in turn, the coping strategies (i.e. job crafting) that they adopt to master, manage or tolerate them.

The researcher proposes that teachers, who have an internal work locus of control, will be more likely to believe that reinforcement or outcomes at work depend on their behaviour or personal characteristics (Spector, 1988). For this reason, these teachers may accept personal responsibility for reinforcement or outcomes at work (Lefcourt, 1966). As a consequence, when

faced with demands, teachers, who have an internal work locus of control, may be more likely to actively deal with the source of job stress or related emotions by changing the nature of the demands or their thoughts concerning the demands (Wilski et al., 2015).

In consideration of the foregoing comments, the researcher proposes that teachers, who have an internal work locus of control, will be more likely to adopt engagement coping, specifically job crafting, when faced with demands (Carver & Connor-Smith, 2010). This promises to enable them to master, manage or tolerate the demands that they encounter. The researcher, therefore, anticipates that teachers, who have an internal work locus of control, will be more likely to remain engaged in their work and perform their job optimally despite the demands that they encounter.

As mentioned, Rotter's (1966) conceptualisation of locus of control implies that it is a dispositional trait. Research has, however, shown that locus of control can be developed (e.g. Wu et al., 2015). In line with this, the researcher contends that it is worthwhile to develop and implement training and development interventions that target work locus of control among public school teachers in the Western Cape Province. These interventions may help teachers recognise that reinforcement or outcomes at work, to some extent, depend on their behaviour or personal characteristics. This may encourage them to accept personal responsibility for reinforcement or outcomes at work (Lefcourt, 1966) and, in turn, buffer the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance.

The foregoing discussion suggests that work locus of control determines the subjective selection and use of effective coping strategies among public school teachers in the Western Cape Province. It is, however, plausible that additional, unknown causal relationships and dynamic feedback loops exist between work locus of control and other latent variables of interest. Additional causal relationships and dynamic feedback loops associated with personal resources will be explored during the follow-up interviews (i.e. Part 2) in the qualitative phase of the study.

2.6.2.3. Psychological Capital

Luthans, Youssef and Avolio (2007) introduced the concept of psychological capital to identify the untapped latent potential in every organisation's repertoire of advantageous capitals. Notably, psychological capital does not refer to human capital (i.e. what we are), economic

capital (i.e. what we have) or social capital (i.e. whom we know), but who we are (Avey, Luthans & Jensen, 2009). It denotes a “positive psychological state of development characterised by: having confidence (i.e. self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; making a positive attribution (i.e. optimism) about succeeding now and in the future; persevering toward goals and, when necessary, redirecting paths to goals (i.e. hope) to succeed; and when beset by problems and adversity, sustaining and bouncing back and even beyond (i.e. resilience) to attain success” (Luthans et al., 2007, p. 3).

As illustrated by the above-mentioned definition, psychological capital is a higher-order construct that consists of four dimensions. These dimensions are self-efficacy, optimism, hope and resilience. Self-efficacy involves having the confidence to take on challenging tasks and invest the required energy and effort to achieve success (Luthans et al., 2007). Bandura (1997) defined it as individuals’ belief in their capability to produce desired effects through their behavioural efforts. Bandura explained that self-efficacy influences the behavioural efforts individuals choose to exhibit, as well as the extent to which they are willing to persevere despite the demands that they encounter. Individuals, who have high self-efficacy, believe in their ability to produce desired effects through their behavioural efforts. As a result, these individuals are willing to invest additional energy and effort in the completion of their tasks and duties. When faced with demands, individuals, who have high self-efficacy, are willing to persevere.

Optimism refers to a positive attribution about achieving success in the present and the future (Luthans et al., 2007). According to Scheier and Carver (1985), it denotes individuals’ belief that success will occur. Optimistic individuals expect that positive things will happen, even when faced with demands.

Hope was initially conceptualised as “a cognitive set that is based on a reciprocal derived sense of successful agency (goal-directed determination) and paths (planning to meet goals)” (Snyder et al., 1991, p. 571). By extrapolating from this conceptualisation, Luthans et al. (2007) explained that hope involves persevering toward desired goals and, when needed, redirecting paths to goals in order to achieve success. Hopeful individuals can identify paths to desired goals. Moreover, these individuals wholeheartedly invest their energy and effort toward the achievement of their goals and, when faced with demands, redirect these paths in order to succeed.

Resilience refers to the ability to sustain and bounce back to achieve success when confronted with significant adversity or risk (Luthans et al., 2007). Masten and Reed (2002) explained that resilient individuals display patterns of positive adaptation to the demands that they encounter. By drawing on their psychological resources, these individuals can persist when confronted with significant adversity or risk. As a consequence, resilient individuals can thrive despite the demands that they encounter through positive adaptation.

Despite the conceptual similarity and overlap between the above-mentioned dimensions of psychological capital, research has demonstrated support for the convergent and discriminant validity of each dimension (Avey, Luthans & Youssef, 2010). The researcher will operationalise psychological capital as a higher-order construct in the study. This decision is informed by research, which has indicated that it is a better predictor of human behaviour and attitudes than any of its dimensions (e.g. Luthans, Avolio, Avey & Norman, 2007).

Research has demonstrated that positive psychological capital enables individuals to move from surviving to flourishing and success in all spheres of their lives (Sweetman & Luthans, 2010). In view of this, the researcher anticipates that teachers, who have positive psychological capital, will be more likely to remain engaged in their work and perform optimally compared to their counterparts. Research has revealed support for this notion (e.g. Alessandri, Consiglio, Luthans & Borgogni, 2018; Kang & Busser, 2018). For example, a cross-sectional study conducted by Simons and Buitendach (2013) among 106 call centre agents in South Africa revealed that psychological capital was positively related to employee engagement. A cross-sectional study conducted by Luthans et al. (2007) among 115 engineers and technicians from a high-tech manufacturing firm, and 144 heterogeneous employees from an insurance service firm, indicated that psychological capital predicted job performance.

Research has indicated that the dimensions of psychological capital can be developed through training and development interventions (Luthans, Avey, Avolio, Norman & Combs, 2006). For example, an intervention study conducted by Luthans, Avey and Patera (2008) among 364 heterogeneous employees found that employees, who completed a two-hour web-based training intervention, were more likely to report positive psychological capital compared to employees who were part of the control group. An intervention study conducted by Dello-Russo and Stoykova (2015) among 40 students and professionals in Bulgaria demonstrated comparable results.

2.6.2.3.1. *Psychological capital among public school teachers*

The researcher contends that psychological capital is a personal resource among public school teachers in the Western Cape Province. Along with other personal resources (i.e. learned resourcefulness and work locus of control), it influences teachers' cognitive appraisal of what is happening in their work environment. Their cognitive appraisal determines whether demands are perceived as challenging, threatening or harmful and, in turn, the coping strategies (i.e. job crafting) that they adopt to master, manage or tolerate them.

Luthans et al. (2007, p. 550) described the underlying agentic capacity associated with each of the above-mentioned dimensions of psychological capital as the "positive appraisal of circumstances and probability for success based on motivated effort and perseverance". In view of this, the researcher proposes that teachers, who have positive psychological capital, will be more likely to respond positively to demands. The optimism that these teachers have about achieving success in the present and the future, as well as their belief in their capacity to deal with demands, may motivate them to engage cognitive and behavioural efforts and persevere despite the demands that they encounter. As opposed to giving up when faced with demands, they may actively deal with the source of job stress or related emotions by changing the nature of the demands or their thoughts concerning the demands.

In consideration of the foregoing comments, the researcher proposes that teachers, who have positive psychological capital, will be more likely to adopt engagement coping, specifically job crafting, when faced with demands (Carver & Connor-Smith, 2010). This promises to enable them to master, manage or tolerate the demands that they encounter. The researcher, therefore, anticipates that teachers, who have positive psychological capital, will be more likely to remain engaged in their work and perform their job optimally despite the demands that they encounter.

As mentioned, research has shown that the dimensions of psychological capital can be developed through training and development interventions (e.g. Dello-Russo & Stoykova, 2015; Luthans et al., 2008). The researcher proposes that it is, therefore, worthwhile to develop and implement training and development interventions aimed at enhancing psychological capital among public school teachers in the Western Cape Province, as it may buffer the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance.

The foregoing discussion suggests that psychological capital determines the subjective selection and use of effective coping strategies among public school teachers in the Western Cape Province. The researcher further anticipates that additional, unknown causal relationships and dynamic feedback loops also exist between psychological capital and other latent variables of interest. Additional causal relationships and dynamic feedback loops associated with personal resources will be explored during the follow-up interviews (i.e. Part 2) in the qualitative phase of the study.

2.6.3. Concluding remarks

The preceding section of the literature review highlighted the significance of individual differences in personal resources in the job stress phenomenon among public school teachers in the Western Cape Province. Firstly, critical comments were made regarding unresolved issues associated with the conceptualisation of personal resources in the JD-R model. This clarified the role and nature of personal resources in the study. Thereafter, preliminary personal resources among public school teachers in the Western Cape Province were discussed. These personal resources are learned resourcefulness, work locus of control and psychological capital.

Taken together, the researcher proposed that personal resources encompass all the person variables that signal employees' ability to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment. Moreover, to avoid a violation of the compatibility principle (Ajzen, 2005), she will operationalise all the variables included in the JD-R model, including personal resources, at the same level of specificity (i.e. individual level). She will not examine shared perceptions of personal resources among public school teachers in the Western Cape Province in the study.

It is important to mention that not all the person variables that are subsumed under the researcher's conceptualisation of personal resources are malleable. To ensure that she will be able to recommend human resource practices and interventions that can be developed and implemented to enhance the positive attributes and strengths that enable teachers to buffer the potentially negative influence that demands may have on the level of engagement that they experience and, in turn, their job performance, she will primarily concentrate on personal resources that can be measured, developed and effectively managed.

Based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study, the researcher proposed that internal coping

resources are more salient than external coping resources among teachers. Irrespective of external coping resources that are available to teachers, these personal resources influence teachers' cognitive appraisal of what is happening in their work environment. Their cognitive appraisal determines whether demands are perceived as challenging, threatening or harmful and, in turn, the coping strategies (i.e. job crafting) that they adopt to master, manage or tolerate them.

As mentioned, the researcher acknowledged that it is plausible that the role of personal resources in the job stress phenomenon among public school teachers in the Western Cape Province is more complex than it may appear at first glance. She anticipated that additional, unknown causal relationships and dynamic feedback loops also exist between the identified personal resources that were identified during a series of informal discussions with public school teachers prior to the commencement of the study and other latent variables of interest. Participants will, therefore, be required to explore all the possible causal relationships that exist among the personal resources and other latent variables of interest during the follow-up interviews (i.e. Part 2) in the qualitative phase of the study.

2.7. Summary

In Chapter 2, the theoretical foundation for the research questions of the study was laid. The first two sections offered an overview and integration of the body of the extant literature that has emerged in the areas of job performance and employee engagement (i.e. Sections 2.2 and 2.3). These sections were followed by a theoretical overview of demands (i.e. job and contextual demands), resources (i.e. job, contextual and personal resources) and coping strategies (i.e. job crafting) on the basis of their inferred role as antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. Sections 2.4 through 2.6).

In Chapter 3, the IQA research protocol will be deliberated, and the results of Part 1 of the qualitative phase will be presented. The qualitative phase was used to identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. Part 1), and to explore the relational dynamics that exist among these antecedents (i.e. Part 2).

CHAPTER 3: RESEARCH METHODOLOGY OF THE QUALITATIVE PHASE AND RESULTS OF PART 1: AFFINITY IDENTIFICATION

3.1. Introduction

Chapters 3 through 5 will provide a description of the research methodology that was used in the study to answer the amended research initiating question, “Which contextual, organisational, job and individual antecedents explain variance in employee engagement among public school teachers in the Western Cape Province?”

The research methodology denotes the tools and procedures that are used in the research process. It reinforces the validity and credibility of inferences that are made based on the results obtained by concentrating on reducing error (Creswell, 2003). Researchers must, therefore, make methodological decisions carefully.

Before discussing the research methodology that was used in the study, it is important to revisit the research challenge and its objectives (Creswell, 2015). As mentioned in Chapter 1, the primary objective of the study was to develop and evaluate an exploratory¹² model of the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.

More specifically, it intended to:

- Identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.

¹² The researcher adopted an exploratory research design in the qualitative phase (i.e. Parts 1 and 2), as it was intended to gain an understanding of the engagement phenomenon among public school teachers in the Western Cape Province. The emerging structural model, based on data gathered in the qualitative phase (i.e. Part 3) and a review of the extant literature, was explanatory. The researcher evaluated the emerging structural model to determine the significance of the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among teachers.

- Explore the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.
- Evaluate the emerging exploratory model quantitatively, making specific reference to contextual, organisational, job and individual antecedents that explain between-person variance in employee engagement among public school teachers in the Western Cape Province.
- Highlight the theoretical conclusions that were made based on the research results and recommend human resource practices and interventions to foster employee engagement among public school teachers in the Western Cape Province.

As outlined in Chapter 1, Chapters 3 and 4 will discuss the qualitative phase that was used to identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. Part 1), and to explore the relational dynamics that exist among these antecedents (i.e. Part 2). The qualitative results provided insight into between-person, as well as within-person, variance in employee engagement among public school teachers in the Western Cape Province.

In consideration of foreseeable practical constraints, exploratory results concerning within-person variance in employee engagement were not subjected to quantitative data analyses. Only results concerning between-person variance in employee engagement among public school teachers in the Western Cape Province was verified using a cross-sectional approach based on a self-report web-based survey in the quantitative phase (i.e. Part 3), which will be discussed in Chapters 5 and 6.

As mentioned in Chapter 1, the researcher deviated from the conventional style of reporting both the research methodology and results in Chapters 3 and 4. Considering the unique nature of the IQA methodology, she presented each successive procedural step that was taken in the qualitative phase and its results. The procedural steps and the emerging results are interwoven.

3.2. Research Paradigm

Paradigms denote whole systems of thinking. In accordance with this, research paradigms are the frameworks that guide observation and understanding within particular disciplines. The purpose of research is to transform what is believed to be the truth (i.e. doxology) into what is known to be the truth (i.e. epistemology). Research paradigms are, therefore, the set of

principles that guide the process of doxa into episteme. These principles inform researchers about how data should be gathered, analysed and interpreted (Rubin & Babbie, 2009).

There are two primary research paradigms, namely Positivism and Interpretivism. The roots of quantitative, as well as qualitative, research methodologies extend into these research paradigms. The Positivist paradigm is more suitable for quantitative research methodologies, while the Interpretivist paradigm is more suitable for qualitative research methodologies (Rubin & Babbie, 2009).

According to Hirschheim (1985, p. 12), “positivism has a long and rich historical tradition. It is so embedded in our society that knowledge claims not grounded in positivist thought are simply dismissed as unscientific and therefore invalid”. Along the same lines, Scott and Usher (2010, p. 13) remarked that the Positivist paradigm “equates legitimacy with science (albeit an idealised picture of science) and scientific method (in the sense of a set of general methodological rules)”. It is, however, important to recognise that Positivism has not only been met with approval and support. Even though there are researchers, who argue that it is the only legitimate research paradigm for scientific discovery, whether the natural science model is entirely suitable for research in all disciplines remains a heavily debated issue (Babbie, 2010). While the researcher will not elaborate on this debate, it is relevant to the study.

Babbie (2010) remarked that no research paradigm is inherently better than other research paradigms. Researchers must decide which research paradigm is most suitable for the nature of the research challenge and its objectives. Even though the Positivist paradigm has strengths in terms of its precision, control and objectivity, the researcher claimed that the research challenge of the study and its objectives could not have been aligned with this paradigm entirely. For this reason, she adopted a pluralistic approach by drawing on more than one research paradigm to produce a comprehensive understanding, explanation and interpretation of the employee engagement phenomenon among public school teachers in the Western Cape Province. More specifically, she drew on principles of the Interpretivist paradigm in the qualitative phase to value multiple perspectives and gain an in-depth understanding of the engagement phenomenon, and principles of the Positivist paradigm in the quantitative phase to evaluate the emerging exploratory model.

3.2.1. Research paradigm of the quantitative phase: Positivism

Positivism, also known as the scientific approach, applies the natural science model of research to the investigation of phenomena. The natural science model of research assumes that fixed natural laws and mechanisms determine a particular phenomenon. Researchers, who adopt the Positivist paradigm, concentrate on formulating fundamental laws that can be used to explain observable and measurable behaviour. This enables them to make generalisations comparable to those produced by natural scientists (Rubin & Babbie, 2009).

The Positivist paradigm assumes that phenomena can be observed and measured objectively. This implies that researchers do not interfere with phenomena. They adopt a distant, non-interactive position and make neutral interpretations in a value-free manner. Researchers pay no attention to their personal values, as it may impair their objectivity (Rubin & Babbie, 2009).

Researchers, who adopt the Positivist paradigm, prefer to analyse quantifiable data. Hypotheses are formulated based on previously observed and explained realities and their perceived cause-and-effect relationships, and subjected to rigorous empirical testing (Rubin & Babbie, 2009).

3.2.2. Research paradigm of the qualitative phase: Interpretivism

In response to dissatisfaction with Positivism, the Interpretivist paradigm was introduced. This post-positivism paradigm assumes that the complexity of phenomena cannot be understood and interpreted by applying the natural science model of research. Researchers, who adopt the Interpretivist paradigm, concentrate on understanding and explaining a particular phenomenon, as well as the values that are attached to it (Rubin & Babbie, 2009).

The Interpretivist paradigm assumes that phenomena can be understood and interpreted subjectively in terms of multiple, intangible mental models. The form and content of these mental models depend on the characteristics of participants, as well as those of researchers. One mental model is, therefore, not more or less accurate than another mental model, but more or less informed and sophisticated (Rubin & Babbie, 2009).

The Interpretivist paradigm is directed toward the process of meaning-making through the subjective interpretation of phenomena. Researchers, who adopt the Interpretivist paradigm, reject the notion of value-free research. They become part of phenomena to develop empathic

understandings. This enables them to produce meaningful explanations of phenomena (Rubin & Babbie, 2009).

3.3. Methodological Approach

The research method denotes a strategy of enquiry. Throughout literature, several methodological approaches to research are mentioned. These approaches can be separated into three broad categories, ranging from quantitative and qualitative approaches to the mixed-methods approach. To select an appropriate methodological approach, it is important to consider the nature of the research challenge and its objectives (Creswell, 2015).

The quantitative approach is typically used to identify latent variables that explain variance in specific outcomes or to determine the utility of interventions. However, when researchers desire to gain an in-depth understanding of the meaning of a particular phenomenon, because little is known about it, the qualitative approach is more suitable. The mixed-methods approach combines these approaches. This approach is used when neither quantitative nor qualitative approaches are sufficient by themselves. As an example, when researchers would like to gain an in-depth understanding of the meaning of a particular phenomenon, and to make generalisations about the results obtained, the mixed-methods approach is useful (Creswell, 2015).

In consideration of the research challenge of the study and its objectives, the researcher decided to adopt the mixed-methods approach. This approach enabled her to gain an in-depth understanding of the engagement phenomenon among public school teachers in the Western Cape Province (i.e. Parts 1 and 2), and to verify exploratory results concerning between-person variance in employee engagement and make generalisations to the broader population of public school teachers in the Western Cape Province (i.e. Part 3).

3.3.1. Research design

To ensure that the research process was successfully executed, a research plan was required. The research design represented such a plan. It offered the researcher guidance in terms of the successful execution of the mixed-methods approach that was used to address the research challenge of the study and its objectives.

Creswell (2015) distinguished between two broad categories of mixed-methods research designs, namely basic designs and advanced designs. Basic mixed-methods research designs refer to convergent and exploratory sequential designs, while advanced mixed-methods research designs denote intervention, transformative and multiphase designs. The researcher decided to use the mixed-methods exploratory sequential design in the study.

When phenomena have not previously been studied, exploratory research designs are used to generate new knowledge and insights (Burns & Grove, 2007). According to Polit and Hungler (1999), exploratory research designs are used to investigate the full nature of a particular phenomenon, its manifestations and related antecedents. In consideration of this, the researcher decided to adopt a mixed-methods exploratory sequential design. She argued that this research design was suitable for gaining an in-depth understanding of the of the engagement phenomena among public school teachers in the Western Cape Province as little is known about it.

The mixed-methods exploratory sequential design can be separated into four steps. These steps, with the associated parts of the study, are depicted in Table 3.1.

Table 3.1
Mixed-methods exploratory sequential design steps

Step 1: Design and implement qualitative phase
<ul style="list-style-type: none"> • State qualitative research questions. • Determine qualitative approach (i.e. IQA methodology). • Obtain permission from relevant parties (i.e. approval to conduct research from the Western Cape Department of Education, and ethical clearance from the Departmental Ethics Screening Committee (DESC) and the Research Ethics Committee (REC): Human Research (Humanities) of Stellenbosch University). • Identify qualitative sample (i.e. fee mainstream secondary schools and no-fee mainstream secondary schools in the Cape Winelands education district). • Obtain permission from relevant parties (i.e. institutional permission from principals, and informed consent from teachers). • Collect qualitative data with protocols (i.e. guided imagery exercise in Part 1, and relationship table of themes in Part 2). • Analyse qualitative data using theme development, and identify information needed to inform quantitative phase.
Step 2: Use strategies to build on qualitative results
<ul style="list-style-type: none"> • Summarise and interpret qualitative results. • Refine quantitative research questions or propositions. • Determine how to select quantitative sample. • Design instrument for quantitative data collection based on qualitative results.

Table 3.1
Mixed-methods exploratory sequential design steps (Continued)

Step 3: Design and implement quantitative phase
<ul style="list-style-type: none"> • State quantitative research questions or propositions that build on qualitative results. • Determine quantitative approach (i.e. cross-sectional approach). • Obtain permission from relevant parties (i.e. approval to conduct research from the Western Cape Department of Education, and ethical clearance from the DESC and the REC). • Select quantitative sample that will generalise or test qualitative results (i.e. fee mainstream secondary schools and no-fee mainstream secondary schools in the Western Cape Province). • Obtain permission from relevant parties (i.e. institutional permission from principals, and informed consent from teachers). • Collect closed-ended data with valid and reliable instruments (i.e. self-report web-based survey in Part 3). • Analyse quantitative data using descriptive statistics, inferential statistics and effect sizes.
Step 4: Interpret results
<ul style="list-style-type: none"> • Summarise and interpret quantitative results. • Discuss to what extent and in what ways quantitative results verify qualitative results.

Note: Adapted from *Designing and conducting mixed methods research* (2nd Ed., p. 88), by J. W. Creswell and V. L. Plano Clark, 2011, Thousand Oaks, CA: Sage.

Table 3.2 offers a summary of the mixed-methods exploratory sequential design that was used in the study. As mentioned in Chapter 1, the research methodology and results of the qualitative phase (i.e. Parts 1 and 2) will be discussed in Chapters 3 and 4. In Chapters 5 and 6, the quantitative phase (i.e. Part 3) will be discussed.

Table 3.2
Summary of the qualitative and quantitative phases

Part of research design	Sample size	Sampling design	Method of data collection	Method of data analysis	Outcome
Qualitative phase (Part 1)	37	Purposive sampling	Initial interviews (i.e. guided imagery exercise)	Conceptual analysis	Results of Part 1 informed Part 2
Qualitative phase (Part 2)	28	Purposive sampling	Follow-up interviews (i.e. relationship table of themes)	Pareto and power analyses	Results of Part 2 informed Part 3
Quantitative phase (Part 3)	353	Stratified simple random sampling	Self-report web-based survey	Item analysis, Confirmatory Factor Analysis (CFA), Exploratory Factor Analysis (EFA) and Partial Least Squares (PLS)	Results of Part 3 informed human resource practices and interventions

3.4. Introduction to the Qualitative Phase (Parts 1 and 2)

The qualitative approach is a “generic research approach in social research according to which research takes its departure point as the insider perspective on social action” (Babbie &

Mouton, 2001, p. 53). In line with this, the qualitative phase of the study intended to gain an insider perspective on the engagement phenomenon among public school teachers in the Western Cape Province. As mentioned, the researcher drew on the Interpretivist paradigm in the qualitative phase to value multiple perspectives and gain an in-depth understanding of the engagement phenomenon among teachers.

Babbie and Mouton (2001, p. 53) explained that the goal of the qualitative approach “is defined as describing and understanding, rather than the explanation and prediction of human behaviour”. In line with this, the qualitative phase aimed to describe and understand how public school teachers in the Western Cape Province structure their understanding of the most salient contextual, organisational, job and individual antecedents of variance in employee engagement.

Since the mixed-methods exploratory sequential design commences qualitatively, the research challenge and its objectives typically call for the qualitative phase to have a higher priority within the research design (Creswell, 2015). In accordance with this, the qualitative phase was given a higher priority in the study.

3.4.1. Research approach of the qualitative phase: Interactive qualitative analysis methodology

There is not a fixed research approach for the qualitative phase in the mixed-methods exploratory sequential design. Based on a review of existing qualitative research methodologies, the researcher decided to conduct a variation of the conventional IQA methodology for the purpose of the qualitative phase in the study (Northcutt & McCoy, 2004).

Drawing on the systems theory and phenomenology, the IQA methodology is used to determine how constituencies¹³ structure mental models of the perceived causal relationships concerning a particular phenomenon and its antecedents. Specific ontological and epistemological assumptions guide this relatively new qualitative methodology. Firstly, “IQA presumes that knowledge and power are largely dependent; that power influences which knowledge is determined to be relevant and irrelevant, important and unimportant” (Northcutt & McCoy,

¹³ A constituency refers to “a group of people who have a shared understanding of a phenomenon” (Northcutt & McCoy, 2004, p. 44). Constituencies are identified by considering how close individuals are to the phenomenon of interest, and how much power they have over it.

2004, p. 16). Constituencies' knowledge is determined by the amount of power they possess over a particular phenomenon through their membership to a specific group. Secondly, it presumes that researchers and participants are interdependent. Both researchers and participants are involved in the process of data collection and analysis. Thirdly, "IQA insists that both deduction and induction are necessary to the investigation of meaning" (Northcutt & McCoy, 2004, p. 16). Constituencies socially construct categories of meaning during focus group sessions through induction. Once categories of meaning have been constructed, constituencies define and redefine affinities¹⁴ (i.e. induction and deduction). Finally, constituencies explore the perceived causal relationships that exist between affinities deductively.

Northcutt and McCoy (2004, p. 17) claimed that "IQA is clearly favourable to theory, both from the point of view of inducing theory and of testing it". The researcher endorsed this notion and decided to conduct a variation of the conventional IQA methodology to determine how public school teachers in the Western Cape Province structure mental models of contextual, organisational, job and individual antecedents of between-person variance in employee engagement. Additionally, she also enquired about the stability of the perceived causal relationships (i.e. direction and intensity) and teachers' level of engagement (i.e. within-person variance) over time. This provided valuable insight into the complexity of the engagement phenomenon among teachers.

Two reasons informed the decision to conduct the IQA methodology for the purpose of the qualitative phase of the study. Firstly, it enabled the researcher to conduct a systematic and thorough examination of all the iterations of the perceived causal relationships concerning the engagement phenomenon and its antecedents. None of the perceived causal relationships remained unexplored. Secondly, the IQA research protocol created an audit trail of every step taken and decision made in the qualitative phase. The researcher is, therefore, able to account for every step taken and decision that was made in this phase (Northcutt & McCoy, 2004).

A possible disadvantage of the IQA methodology relates to the fact that it does not allow researchers to conduct quantitative analyses regarding the mental models of the perceived causal relationships concerning a particular phenomenon and its antecedents (Northcutt &

¹⁴ Affinities are categories of meaning in a system. These categories of meaning signify constituencies' experience of a particular phenomenon. Notably, affinities may not always correspond with theoretical constructs (Northcutt & McCoy, 2004). The researcher will refer to affinities and categories of meaning interchangeably in the study.

McCoy, 2004). The researcher did not consider the inability to conduct quantitative analyses as a disadvantage. It was instead regarded as a source of inspiration and justification for the quantitative phase of the study.

3.4.2. Procedural steps in the qualitative phase

The IQA research protocol typically consists of four procedural steps, namely “research design, focus group, interview and report” (Northcutt & McCoy, 2004, p. 44). Figure 3.1 offers a summary of the procedural steps that were taken in qualitative phase of the study.

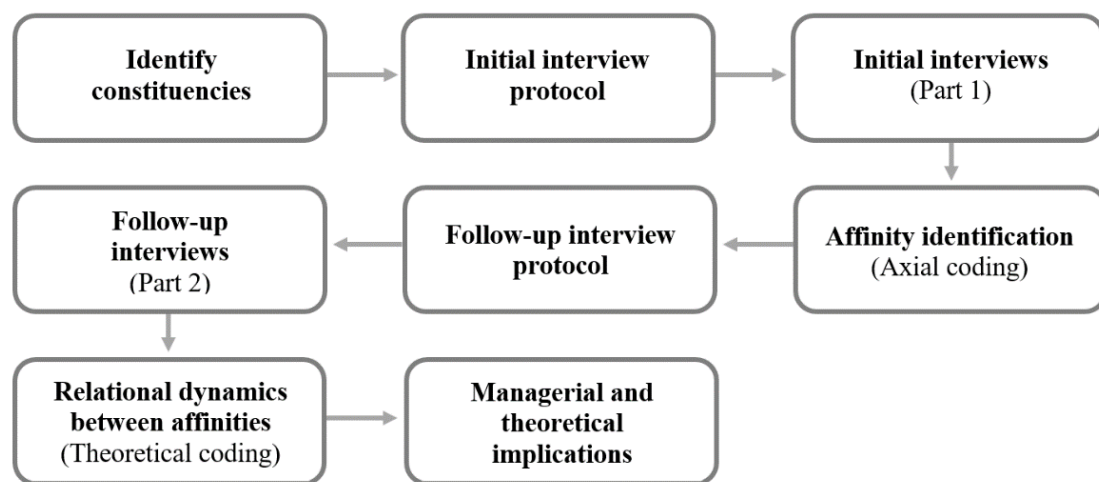


Figure 3.1 Interactive qualitative analysis methodology flow diagram. Adapted from *Interactive Qualitative Analysis: A systems method for qualitative research* (p. 45), by N. Northcutt and D. McCoy, 2004, Thousand Oaks, CA: Sage.

As shown in Figure 3.1, the researcher deviated from the conventional IQA methodology due to unforeseen challenges associated with the arranged focus group sessions (e.g. time constraints in teachers’ schedules). Teachers, who were invited to participate in the qualitative phase of the study, found it difficult to slot into the pre-arranged focus group sessions and showed a preference for individually arranged interviews. Focus group sessions were, therefore, replaced by individual interviews (i.e. initial and follow-up interviews). The researcher was confident that this would not adversely affect the primary objective of the study to develop and evaluate an exploratory model of the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province.

3.4.3. Research setting of the qualitative phase

The qualitative phase of the study took place at public schools in the Western Cape Province, specifically the Cape Winelands education district.

In accordance with the national quintile system (Henderson, 2016), the researcher distinguished between no-fee schools (i.e. quintiles 1 and 2) and fee schools (i.e. quintiles 4 and 5). It is important to mention that some public schools in quintile 3 are also no-fee schools. The researcher was, therefore, unable to determine whether public schools in quintile 3 were fee schools or no-fee schools.

The researcher anticipated that the incorrect categorisation of public schools as either fee schools or no-fee schools would compromise the quality of the results obtained during the qualitative phase. To ensure that the quality of results was upheld, she decided to exclude public schools in quintile 3 from the qualitative phase of the study.

3.4.4. Sampling design and constituencies of the qualitative phase

Sampling denotes the selection of a segment, or sub-set, of the target population. There are two distinct sampling designs, namely probability sampling and non-probability sampling. Probability sampling is used when the entire sample population is known; when each member of the sample population has a specific non-zero probability of being selected; and sampling is done randomly, based on probabilities (e.g. cluster, random, stratified or systematic sampling). Non-probability sampling, on the other hand, is used when the entire sample population is not known; when members' probability of being selected cannot be determined; and sampling is guided by factors, such as common sense or ease (e.g. accidental, purposive, quota or snowball sampling) (Babbie & Mouton, 2001).

The qualitative approach to research typically highlights the importance of selecting participants who can provide an insider perspective on matters that are of central importance to the research challenge and its objectives. As opposed to maximising the number of participants, it suggests that the primary objective is to reach data saturation. In view of this, the researcher used the purposive sampling design in the qualitative phase of the study. This enabled her to purposefully select participants according to the criteria of "distance and power" (Northcutt & McCoy, 2004, p. 69), who were able to provide an insider perspective on matters

that are of central importance to the objectives of the qualitative phase. Data was gathered until data saturation was reached.

Babbie and Mouton (2001, p. 166) mentioned that the purposive sampling design is “based on your judgement and the purpose of the study”. Participants were, therefore, selected based on the knowledge that the researcher possessed of the sample population, its elements and the objectives of the qualitative phase. This allowed her to maximise the range of information that could be obtained by purposefully selecting participants that were diverse.

3.4.4.1. Inclusion Criteria of Participants in the Qualitative Phase

The following inclusion criteria were used to purposefully select participants for the purpose of the qualitative phase:

- Secondary school teachers;
- Employed in mainstream public schools;
- Teaching full-time for one year or more; and
- Located in the Western Cape Province, specifically the Cape Winelands education district.

The researcher decided to use the above-mentioned inclusion criteria for four reasons. Firstly, only secondary school teachers were included in the sample population. Even though primary and secondary school teachers contribute to the effective functioning of public schools across South Africa, the researcher contends that secondary school teachers play an essential role in alleviating poverty and remedying past imbalances in South Africa. Secondly, in consideration of the unsatisfactory state of public schooling in South Africa, only public school teachers were included in the sample population. Thirdly, only teachers, who have taught full-time for one year or more, were included in the sample population. Participants were required to reflect on their past and present experiences with the engagement phenomenon in the qualitative phase. In consideration of this, the researcher suggested that participants needed job tenure of at least one year. Lastly, only teachers employed in public schools in the Western Cape Province, specifically the Cape Winelands education district, were included in the sample population. She decided to conduct this phase among teachers employed in public schools in the Cape Winelands education district, as it offered an accurate reflection of the inequalities that exist within the South African education system.

3.4.4.2. *Identifying Constituencies in the Qualitative Phase*

Recent research has shown that context influences employee engagement and its antecedents. For example, two case studies conducted by Jenkins and Delbridge (2013) among employees from a family-owned, multi-client call centre in Wales, and employees from a multi-national corporation in Scotland and the United States of America, examined different managerial approaches that are used to engage employees in contrasting organisations. Jenkins and her colleague categorised managerial approaches as “hard” and “soft” and determined the way these approaches reflect the different external contexts in which the management operates. The results demonstrated that management practices are complex and context-specific. The external context influenced the ability of management to promote a supportive internal context for employees. Comparable results were reported by Rothmann (2014). In accordance with these results, as well as Northcutt and McCoy's (2004, p. 69) notion of “power”, the researcher anticipated that the antecedents of variance in employee engagement might vary between teachers employed in fee schools and no-fee schools. More specifically, she expected that there might be subtle differences in the demands (i.e. job demands and contextual demands) and resources (i.e. job demands and contextual resources) teachers employed in fee schools and no-fee schools encounter. Participants were, therefore, divided into two constituencies in accordance with the national quintile system (Henderson, 2016).

By comparing the results obtained from each constituency, the researcher anticipated that she would gain an in-depth understanding of the engagement phenomenon among public school teachers in the Western Cape Province. This approach promised to enable her to identify group-specific, as well as global, tendencies that must be taken into consideration during the development and implementation of human resource practices and interventions to foster employee engagement among all public school teachers and, in turn, improve the quality of basic education offered in many public schools.

Even though challenges associated with clustered data are typically discussed in relation to quantitative research (e.g. Abe & Gee, 2014), the researcher recognised that the distinction between teachers from fee schools and no-fee schools would cluster data into two distinct groups. To reduce the cluster effect associated with this distinction (i.e. quintile-level clustering), she aimed to select an equal number of teachers from fee schools and no-fee schools for initial (fee schools: $n = 20$; no-fee schools: $n = 17$), as well as follow-up (fee schools: $n = 14$; no-fee schools: $n = 14$), interviews. The researcher also recognised that the most salient

contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province, and the relational dynamics that exist among these antecedents, may also be clustered at a school level (i.e. school-level clustering). For this reason, she did not allow more than four teachers, who are employed in the same public school, to participate in initial and follow-up interviews.

3.4.5. Ethical considerations of the qualitative phase

The qualitative phase of the study involved the active participation of public school teachers in the Western Cape Province. Participating in a research study may impose on the dignity, rights, safety or well-being of individuals. In view of this, the researcher carefully considered any potential ethical risks that were associated with the qualitative phase and whether the purpose of the study justified any compromises that were made in this regard (Engelbrecht, 2012).

There were no serious ethical risks or discomfort associated with participation in the qualitative phase, apart from time spent participating in initial and follow-up interviews (approximately 30 minutes to 1 hour and 30 minutes). Neither Part 1 nor Part 2 imposed on the dignity, rights, safety or well-being of participants. The researcher dealt with any potential ethical risks in accordance with the *Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act No. 56 of 1974)* (Department of Health, 2006).

The qualitative phase commenced once the Western Cape Department of Education approved it and the DESC and the REC: Human Research (Humanities) of Stellenbosch University ethically cleared it.

Participation in the qualitative phase was voluntary. Participating public schools and teachers were able to withdraw at any time without being subjected to any harmful consequences. Following the completion of initial interviews, participants were invited to engage in one follow-up interview. It is important to note that participation in initial interviews did not obligate teachers to participate in follow-up interviews.

The researcher obtained institutional permission from principals of participating public schools before inviting teachers to participate in the qualitative phase. Principals were asked to complete the institutional permission form. This document offered a detailed explanation of the study and the nature of participation in the qualitative phase. Principals were afforded the opportunity and encouraged to ask questions and raise concerns regarding the participation of

their school. The institutional permission form was in English. Face-to-face interactions with principals and supplementary telephonic correspondence were in either English or Afrikaans, depending on their preference.

Informed consent was obtained from participants. Participants, who participated in initial and follow-up interviews, were asked to give written informed consent. The informed consent form offered a detailed explanation of the study and the nature of participation in the qualitative phase. Participants were afforded the opportunity and encouraged to ask questions and raise concerns regarding their participation. The informed consent form was in English. Face-to-face interactions with participants and supplementary telephonic correspondence were in either English or Afrikaans, depending on their preference.

Initial and follow-up interviews were scheduled at a time and place that was comfortable and convenient for participants. This prevented any interference with time spent teaching and helped to ensure that participants felt safe and relaxed during the initial and follow-up interviews. The length of interviews varied between 30 minutes to 1 hour and 30 minutes. The majority of interviews took approximately 1 hour to complete.

The researcher did not offer participants any inappropriate or excessive financial or other inducements for their participation in the qualitative phase. She arranged gift packs for participants. ABSA Bank, Standard Bank and Van Schaik Bookstore sponsored the gift packs. Once initial and follow-up interviews were completed, she delivered the gift packs to participants at their respective public schools. Principals of participating public schools did not receive any form of financial or other inducements for their participation in the qualitative phase. The researcher undertook to make composite results available to principals in a feedback report.

Participants were assured of anonymity. Even though participants were required to disclose personal data as part of their participation in the qualitative phase, it was not used to identify specific participants. All the documents that were used to record participants' personal data were anonymised before it was captured in an electronic format in order to protect any personally identifiable information of participants. The researcher anonymised the documents by removing the names of participants with Tippex and assigning pseudonyms in black ink.

With participants' permission, initial and follow-up interviews were voice-recorded. The researcher recognises that it is difficult to anonymise voice-recordings. Voice-recordings were,

therefore, only used for transcription purposes. During transcription, she replaced the names of participants with pseudonyms. Moreover, transcriptions were proofread to ensure that other, more subtle clues that could be linked to specific participants, places or institutions were no longer evident. When participants did not grant permission to record the interviews, handwritten notes were taken. Once the entire study has been completed, the researcher will properly dispose of, destroy or delete voice-recordings and handwritten notes.

The researcher ensured that participants' personal data was protected from improper access by other individuals. All the documents that were used to record participants' personal data were locked in a secure filing cabinet in her office. Only the researcher and project supervisors had access to the filing cabinet. Furthermore, all the electronic documents and voice-recordings that were used to record participants' personal data were stored in a password-protected format on her personal computer. Only the researcher and project supervisors had access to password-protected documents and voice-recordings.

Participants were assured of confidentiality. Any personally identifiable information obtained in connection with the qualitative phase remained strictly confidential. It was not disclosed to participants' principals, other teachers, students or the parents of students. It will only be disclosed with participants' written permission or as required by law.

It was explained to principals and teachers that the information obtained in connection with the qualitative phase was to be used for research purposes and that the study was intended for a doctoral thesis in Industrial Psychology. A published copy of the thesis will be made available on SunScholar for academic purposes. Although direct quotations were included in the thesis, it was not used to identify specific participants, places or institutions. The names of participating public schools and teachers will not be published. In the event that results are published in academic journals or presented at conferences, the same measures will be used to protect their right to anonymity.

3.4.6. Role of the researcher in the qualitative phase

Researchers play an active and participatory role in qualitative studies. Dezin and Lincoln (2005) described researchers as a data collection instrument in qualitative studies. In line with this, the researcher played the role of an observer-as-participant in the qualitative phase of the study, as she was involved in the process of data collection and analysis (Creswell, 2007).

In qualitative studies, researchers draw on their personal experiences as a resource throughout the research process. For this reason, they should engage in self-reflection, both before and during the research process, to identify and acknowledge their biases (Sutton & Austin, 2015). The researcher engaged in frequent self-reflection to identify and acknowledge any biases that may influence her ability to be objective and non-judgmental in her actions, observations and thoughts. She documented her reflections in a reflexive journal during the research process.

3.4.7. Trustworthiness in the qualitative phase

Four criteria are used to evaluate the trustworthiness of the results obtained by qualitative studies to establish its scientific rigour. These criteria are credibility, dependability, transferability and confirmability (Guba, 1981).

3.4.7.1. *Credibility*

The credibility of qualitative studies refers to the degree to which the results obtained are truthful (Holloway & Wheeler, 2002). It establishes whether the results accurately reflect participants' experiences with the phenomenon of interest (Graneheim & Lundman, 2004). There are a number of strategies that can be used to establish the credibility of the results obtained. These strategies include member-checking, triangulation, peer debriefing, persistent observation, prolonged and varied engagement in the field and reflexivity (Anney, 2014).

The researcher used reflexivity, peer debriefing and member-checking to enhance the credibility of the results obtained during the qualitative phase (i.e. Parts 1 and 2) of the study. Firstly, as mentioned, the researcher engaged in frequent self-reflection. By exploring her reactions and experiences, she was able to identify and acknowledge any biases that may influence her ability to be objective and non-judgmental in her actions, observations and thoughts. Secondly, the researcher discussed the results of the qualitative phase with her supervisors, to test her growing insights and expose herself to searching questions. Lastly, she presented the results obtained during Part 1 of the qualitative phase to participants before proceeding with Part 2. This enabled her to determine whether participants could recognise and associate with the results obtained.

3.4.7.2. *Transferability*

The transferability of qualitative studies denotes the extent to which the results obtained can be transferred to other contexts with other participants (Bitsch, 2005). The transferability of

the results obtained can be established by means of purposive sampling and the provision of a detailed description of the research context and process (Anney, 2014).

The researcher used purposive sampling to enhance the transferability of the results obtained during the qualitative phase (i.e. Parts 1 and 2) of the study. As mentioned, she selected participants who were able to provide an insider perspective on matters that are of central importance to the research challenge and its objectives. In addition, the researcher also provided a detailed description of the research context and process. This promises to help future researchers to evaluate the applicability and transferability of the results obtained to other contexts with other participants.

3.4.7.3. *Dependability*

The dependability of qualitative studies refers to the degree to which the results obtained are consistent. Bitsch (2005, p. 86) described it as “the stability of findings over time”. The dependability of the results obtained can be established by means of an audit trail, code-recode strategy, stepwise replication, triangulation and peer examination (Anney, 2014). Notably, the criteria for dependability cannot be met without establishing credibility (Lincoln & Guba, 1985).

The researcher used an audit trail and peer examination to enhance the dependability of the results obtained during the qualitative phase (i.e. Parts 1 and 2) of the study. Firstly, an audit trail was created of each successive procedural step that was taken in the qualitative phase and its results. This enabled the supervisors of the study to examine the data and interpretations to determine whether it was internally coherent. Secondly, the researcher discussed the research process, as well as the results obtained, with neutral colleagues at her university and conferences. These colleagues were familiar with qualitative research methodologies.

3.4.7.4. *Confirmability*

The confirmability of qualitative studies denotes the extent to which other researchers can confirm or corroborate the results obtained (Baxter & Eyles, 1997). There are a number of strategies that can be used to establish the confirmability of the results obtained. These strategies include an audit trail, triangulation and reflexive journal (Anney, 2014).

The researcher kept a reflexive journal to enhance the confirmability of the results obtained during the qualitative phase (i.e. Parts 1 and 2) of the study. She documented her experiences

in the field and reflections in a reflexive journal during the research process. In addition, an audit trail was created of each successive procedural step that was taken in the qualitative phase and its results.

3.5. Individual Reality: Affinity Identification (Part 1)

The IQA methodology requires participants to “create their own quilt of meaning” (Northcutt & McCoy, 2004, p. 43) by considering how affinities are related within a system. Focus group sessions are typically used to identify affinities and develop SIDs¹⁵, especially when research is exploratory. The researcher intended to conduct two focus group sessions (i.e. fee schools and no-fee schools). However, as mentioned, she decided to deviate from the conventional IQA methodology due to unforeseen challenges associated with the arranged focus group sessions (e.g. time constraints in teachers’ schedules). As an alternative strategy, initial interviews were conducted at a time and place that was comfortable and convenient for participants. Based on information gathered during the initial interviews and a review of the extant literature, affinities were identified.

To identify the affinities that represent public school teachers in the Western Cape Province’s experiences with the engagement phenomenon, the researcher recruited potential participants from public schools in the Cape Winelands education district. Her primary concern regarding the recruitment of potential participants related to the commitment of principals and public school teachers to the objectives of the study. She used a two-stage sampling procedure to address this concern. Once the qualitative phase was approved by the Western Cape Department of Education and ethically cleared by the DESC and the REC: Human Research (Humanities) of Stellenbosch University, the first stage of the sampling procedure commenced.

The first stage of the sampling procedure was targeted at the recruitment of public schools in the Cape Winelands education district. During this stage, the researcher established contact with the principals of selected public schools. Its primary goal was to facilitate a sense of collaboration and respect between the researcher and principals.

¹⁵ A SID is “a visual representation of an entire system of influences and outcomes and is created by representing the information present in the inter-relationship diagram as a system of affinities and relationships among them” (Northcutt & McCoy, 2004, p. 174).

The researcher established contact with the principals of selected public schools telephonically. During the telephonic discussion, she introduced herself and provided a brief explanation of the study and the nature of participation in the qualitative phase. Principals were encouraged to ask questions and raise concerns regarding the participation of their school. Thereafter, principals received a follow-up email that comprised of the formal letter of proposal and the institutional permission form.

The researcher distributed the above-mentioned documents by email, as it was less probable that principals would feel pressurised to participate in the qualitative phase of the study. This approach respected their right to make an informed decision about the participation of their school, without any external influence. Principals, who expressed an interest in participating in the qualitative phase, were asked to return a signed copy of the institutional permission form by email. The researcher scheduled a face-to-face meeting with principals who preferred to discuss participation in the qualitative phase in person. In these instances, principals, who expressed an interest in participating in the qualitative phase, were asked to sign a hardcopy of the institutional permission form.

Once principals granted institutional permission for the participation of their school in the qualitative phase, the second stage of the sampling procedure commenced. This stage was targeted at the recruitment of participants. Principals were asked to make a standardised announcement during the weekly staff meeting. The purpose of this announcement was to inform teachers about the study and to demonstrate their support of their participation in principle.

Following this, the researcher visited the majority of participating public schools at a time that was convenient to its teachers to provide a detailed explanation of the study and the nature of participation in the qualitative phase (i.e. research purpose, data collection procedure, benefits, potential risks and discomforts, compensation, confidentiality and anonymity, participation and withdrawal and rights of participants). The primary goal of these discussions was to facilitate a sense of collaboration and respect between herself and the teachers. Teachers were afforded the opportunity and encouraged to ask questions and raise concerns regarding their participation. Once questions and concerns were addressed, she invited teachers, who were interested in participating in the qualitative phase, to write their name, surname and contact details (i.e. email and telephone number) on an attendance record.

The researcher contacted teachers, who expressed an interest in participating in the qualitative phase individually, to ask whether they had any further questions and concerns regarding their participation and whether they wanted to be included in the sample group. As an alternative strategy, she distributed her contact details among public school teachers who preferred not to write their name, surname and contact details on an attendance record, but rather to contact the researcher personally in order to express an interest in participating in the qualitative phase. This measure ensured that teachers would not feel pressurised to participate. It respected their right to make an informed decision about their participation, without any external influence. Moreover, this measure also protected their right to confidentiality.

In some instances, the researcher did not visit participating public schools to provide a detailed explanation of the study and the nature of participation in the qualitative phase. In these instances, principals distributed her contact details among public school teachers. Principals encouraged teachers, who were interested in participating in the qualitative phase, to contact the researcher by email or telephonically. The researcher provided a detailed explanation of the study and the nature of participation to teachers who contacted her by email or telephonically and expressed an interest in participating in the qualitative phase. Teachers were afforded the opportunity and encouraged to ask questions and raise concerns regarding their participation. Once questions and concerns were addressed, she asked whether they wanted to be included in the sample group.

The researcher captured the name, surname and contact details of teachers, who agreed to participate in the qualitative phase, on a spreadsheet in Microsoft Excel. Once the entire study has been completed, she will properly dispose of, destroy or delete any documentation that contains the name, surname and contact details of participants.

3.5.1. Research objective

Part 1 of the qualitative phase was intended to identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province. To put it differently, it was intended to identify affinities that represent public school teachers in the Western Cape Province's experiences with the engagement phenomenon. This part of the IQA research protocol is known as axial coding.

3.5.2. Demographic and employment information of constituencies

The researcher established contact with the principals of twenty mainstream secondary public schools in Cape Winelands education district (fee schools: $n = 12$; no-fee schools: $n = 8$). Twelve principals (fee schools: $n = 6$ (50 percent); no-fee schools: $n = 6$ (75 percent)) agreed to participate in the qualitative phase and returned a signed copy of the institutional permission form by email.

The realised sample comprised of thirty-seven teachers from fee schools ($n = 20$) and no-fee schools ($n = 17$) that participated in initial interviews. As mentioned, the researcher did not allow more than four teachers, who are employed in the same public school, to participate in initial and follow-up interviews.

Table 3.3 depicts the demographic and employment information of each constituency in Part 1.

Table 3.3
Frequency distribution: Demographic and employment information (Part 1)

Description	Fee schools		No-fee schools	
	Female	Male	Female	Male
Race				
African	0	0	4	3
Coloured	2	0	3	6
White	16	2	1	0
Other	0	0	0	0
Tenure	Number of participants		Number of participants	
≤ 5 years	8		2	
6 - 15 years	5		5	
16 - 25 years	0		10	
≥ 26 years	7		0	
Job title	Number of participants		Number of participants	
Class teacher	16		15	
Head of department	3		2	
Other positions	1		0	
Highest level of educational attainment	Number of participants		Number of participants	
Bachelor's degree in education	3		6	
Postgraduate diploma in education	9		7	
Honours degree	5		2	
Master's degree	3		1	
Other qualifications	0		1	

Table 3.3 shows that the majority of the fee school constituency comprised of white participants ($n = 18$ (90 percent)), specifically white females ($n = 16$ (80 percent)), in Part 1. In contrast, the majority of the no-fee school constituency comprised of African ($n = 7$ (41 percent)) and coloured ($n = 9$ (53 percent)) participants, specifically African females ($n = 4$ (24 percent)) and coloured males ($n = 6$ (35 percent)).

Table 3.3 also indicates that the tenure of participants from the fee school constituency was either equal to or less than five years ($n = 8$ (40 percent)), between 6 and 15 years ($n = 5$ (25 percent)) or equal to or more than 26 years ($n = 7$ (35 percent)) in Part 1. None of the participants' tenure was between 16 and 25 years. The tenure of participants from the no-fee school constituency was either equal to or less than five years ($n = 2$ (12 percent)), between 6 and 15 years ($n = 5$ (29 percent)) or between 16 and 25 years ($n = 10$ (59 percent)). None of the participants' tenure was equal to or more than 26 years.

Table 3.3 shows that the majority of participants from the fee school constituency were appointed as class teachers ($n = 16$ (80 percent)) in Part 1. Similarly, the majority of participants from the no-fee school constituency were also appointed as class teachers ($n = 15$ (88 percent)). The remaining participants from both constituencies were appointed as heads of departments (fee schools: $n = 3$ (15 percent); no-fee schools: $n = 2$ (12 percent)), with the exception of one participant from the fee school constituency ($n = 1$ (5 percent)). This participant was appointed as a deputy principal. It is necessary to point out that this participant was still actively involved in teaching and extra-curricular activities.

Table 3.3 also indicates that the highest level of educational attainment of participants from the fee school constituency was either a bachelor's degree in education ($n = 3$ (15 percent)), postgraduate diploma in education ($n = 9$ (45 percent)), honours degree ($n = 5$ (25 percent)) or master's degree ($n = 3$ (15 percent)) in Part 1. The highest level of educational attainment of participants from the no-fee school constituency was either a bachelor's degree in education ($n = 6$ (35 percent)), postgraduate diploma in education ($n = 7$ (41 percent)), honours degree ($n = 2$ (12 percent)) or master's degree ($n = 1$ (6 percent)). The highest level of educational attainment of one participant was a doctorate ($n = 1$ (6 percent)).

Participants from both constituencies taught diverse subjects to students from all grades (i.e. Grades 8 to 12).

3.5.3. Initial interview protocol: Data collection instrument and analysis

During the initial interviews, participants were invited to engage in a guided imagery exercise (Addendum A) that was developed specifically for the purpose of Part 1 of the qualitative phase to identify affinities.

The content of the guided imagery exercise was determined based on information gathered during a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study. In addition, the researcher referred to guidelines given by Northcutt and McCoy (2004) and the guided imagery exercises of studies that also used the IQA methodology (e.g. Burton, 2015; Tabane, 2010).

As part of the guided imagery exercise, the researcher asked participants to close their eyes, make themselves comfortable, take a few deep breaths and clear their minds. As part of the exercise, participants were presented with three issue statements:

- What are the key aspects that influence your job experience?
- How do you cope with being a teacher?
- What personal attributes/resources enable you to cope with being a teacher?

These issue statements primed participants to reflect on their thoughts and experiences that relate to the engagement phenomenon.

Participants were given approximately 5 minutes to reflect on their thoughts and experiences that relate to the engagement phenomenon in order to generate relevant ideas and concepts. Once participants had exhausted their ideas and concepts, they were asked to write it on index cards in the form of a word, phrase or sentence. This gave them the opportunity to articulate their thoughts and experiences. The researcher encouraged participants to refrain from censoring their thoughts and experiences.

Participants generated 147 ideas and concepts that are related to the engagement phenomenon (fee schools: $n = 83$; no-fee schools: $n = 64$). It is important to mention that eleven participants did not write their ideas and concepts on index cards. These participants immediately shared their thoughts and experiences with the researcher during the initial interviews.

Table 3.4 presents examples of the ideas and concepts that participants from each constituency generated in alphabetical order.

Table 3.4
Examples of ideas and concepts

Fee schools	No-fee schools
<ul style="list-style-type: none"> • Dissipline (<i>Discipline</i>). • Ek kan 'n verskil maak (<i>I can make a difference</i>). • Gereedskap om sinvolle lesse aan te bied (<i>Tools to offer meaningful lessons</i>). • Hoof se oop deur (<i>Principal's open door</i>). • Houding van mense (<i>Attitude of people</i>). • Interaksie met personeel (<i>Interaction with staff</i>). • Leerder toewyding (<i>Learner dedication</i>). • Ondersteuning van hoof (<i>Support from principal</i>). • Positiewe gesindheid - liefde vir werk, en geduld (<i>Positive attitude - love for work, and patience</i>). • Te veel hooi op my vurk (<i>Too much to do</i>). • Werksverdeling - al die aktiwiteite waarby ek betrokke moet wees (<i>Division of work - all the activities that I have to be involved in</i>). • WKOD¹⁶ se rompslomp (<i>WCDE's hassels</i>). 	<ul style="list-style-type: none"> • Afwesigheid van leerders (<i>Absenteesim of learners</i>). • Dedication of other people. • Enjoying nurturing the learners' lives and making sure that I am moulding them into being best and independent citizens one day. • Goeie prinsipaal (<i>Good principal</i>). • Grootte van klas getalle (<i>Class sizes</i>). • Learners' eagerness/willingness to learn. • Not always able to voice my opinions. • Ondersteuning van kollegas, prinsipaal, en WKOD amptenare (<i>Support from colleagues, principals, and WCED officials</i>). • Passion/love for the job. • Resources. Lack of funds. • You as teacher must do most of the work.

After participants had finished writing their ideas and concepts on the index cards, the researcher read each idea and concept aloud and asked participants to clarify what is meant by it and how it relates to the engagement phenomenon. This eliminated any ambiguity or vagueness. In some instances, participants' responses also offered insight into the perceived causal relationships that exist among the ideas and concepts.

The researcher made provision for targeted questions about previously identified theoretical constructs (that were discussed in Chapter 2) once all the ideas and concepts that participants had identified were explored (Addendum B). These questions were intended to probe their thoughts and experiences of the theoretical constructs that were identified, based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study. These questions were, however, seldom found necessary, as

¹⁶ WKOD (Wes-Kaapse Onderwysdepartement) is the Afrikaans abbreviation for the Western Cape Department of Education.

there was a significant overlap between the ideas and concepts that participants identified during the initial interviews and the previously identified theoretical constructs.

Once all the initial interviews were completed, the researcher identified affinity groupings based on the ideas and concepts that participants had mentioned during the initial interviews. Thereafter, she listened to the recording of each interview twice to gain an impression of the affinities that explain variance in employee engagement among public school teachers in the Western Cape Province. While listening to interviews, she noted the frequency of the affinity groupings. Then, the researcher listened to each interview again to transcribe and cluster exemplars in accordance with the most salient affinity groupings. This process was repeated twice.

Following this, the researcher synthesised the affinity groupings with previously identified theoretical constructs. When a particular affinity grouping could not be synthesised with the initial coding scheme, she created a new affinity grouping (i.e. teaching motivation, school climate, social context of the neighbourhood and perceived organisational justice). Thereafter, the researcher identified sub-affinities and divided the affinity groupings into separate categories of meaning when it became overly complex. Finally, she reviewed the ideas and concepts that were clustered under each affinity and sub-affinity to ensure that it was categorised correctly.

3.5.4. Composite affinity descriptions

The researcher observed a significant overlap in terms of the affinity groupings that were identified by participants from fee schools and no-fee schools. For this reason, she decided to name and describe each affinity grouping based on information gathered from both constituencies during the initial interviews and a further review of the extant literature.

Table 3.5 depicts the composite affinities and sub-affinities.

Table 3.5
Composite affinities and sub-affinities

Affinity name	Sub-affinities
Employee engagement	Vigour Dedication Absorption
Teaching motivation	Job orientation Career orientation Calling orientation

Table 3.5
Composite affinities and sub-affinities (Continued)

Affinity name	Sub-affinities
Coping strategies	Engagement coping (i.e. active coping, turning to religion, and seeking emotional support). Disengagement coping (i.e. avoidance)
Perceived workload	Quantitative workload or overload Qualitative workload or overload
School climate	Collegial leadership Teacher professionalism
Student-teacher relationships and interactions	Motivational behaviour Social-emotional behaviour Relational behaviour
School facilities and teaching resources	Physical structure of the school Teaching resources
Social context of the neighbourhood	Social security Household composition
Parental attitudes	Value of education Educational resources Learning at home School organisations Communication with teachers
Perceived organisational justice	Procedural justice Distributive justice Informational justice Interpersonal justice

The combined experiences of participants from fee schools and no-fee schools with the engagement phenomenon will be discussed in the affinity write-up below. It is necessary to mention that the researcher did not edit the participants' responses. Their responses are reported as they were communicated during the initial interviews.

3.5.4.1. Employee Engagement

Employee engagement is an existing theoretical construct that was included in the initial coding scheme. As mentioned in Chapter 2, the researcher defined this affinity grouping in accordance with Schaufeli et al. (2002). Schaufeli and his colleagues defined employee engagement denotes as "a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption" (Schaufeli et al., 2002, p. 74).

Schaufeli et al.'s (2002) definition of employee engagement distinguishes between three dimensions, namely vigour, dedication and absorption. Vigour is a positive affective response to work, characterised by feelings of cognitive liveliness, emotional energy and physical strength. Vigorous employees exhibit high levels of energy and mental resilience while

working and the willingness to invest effort in their work. These employees can persist when faced with demands. Dedication refers to being actively involved in work. Dedicated employees consider their work to be a meaningful and significant pursuit. These employees experience a sense of enthusiasm, inspiration and pride in their work. Absorption refers to a complete captivation with work. This dimension of employee engagement approximates Csikszentmihalyi's (1997) conceptualisation of flow, whereby employees experience an optimal state of focussed attention and intrinsic enjoyment in their work. Absorbed employees are fully immersed and happily engrossed in their work. These employees are unaware of time passing and have difficulty disengaging themselves from their work.

Participants described the extent to which they feel engaged in their work during the initial interviews. Table 3.6 presents examples of the ideas and concepts that relate to employee engagement.

Table 3.6
Examples of ideas and concepts that relate to employee engagement

Fee schools	No-fee schools
Vigour <ul style="list-style-type: none"> • Ek wil elke dag opstaan om skool toe te gaan. 	Vigour <ul style="list-style-type: none"> • (Not recorded).
Dedication <ul style="list-style-type: none"> • Purpose/contribution. • Leerders te sien “wen” veral na skool (<i>See learners achieve success especially after school</i>). 	Dedication <ul style="list-style-type: none"> • It feels good to see the product of your own work prosper in life, that's one other motivational factor. E.g. we meet these learners at young age, having no idea of what life will bring them and we instil that sense of responsibility. After some years being qualified people and responsible citizens that satisfies me and inspire me to do more. • Seeing someone, who comes from a poor background, flourish in his life/succeed through education.
Absorption <ul style="list-style-type: none"> • Positiewe gesindheid - liefde vir werk, en geduld (<i>Positive attitude - love for work, and patience</i>). • Geniet my vak (<i>Enjoy my subject</i>). 	Absorption <ul style="list-style-type: none"> • Feeling happy when coming to work every day. • Passion/love for the job.

Even though Table 3.6 indicates that participants from no-fee schools did not list ideas and concepts that relate to vigour on index cards, participants from both constituencies alluded to each dimension of employee engagement during the initial interviews. As an example, participants from no-fee schools pointed out that they wilfully invest effort in their work (i.e. vigour) to ensure that students, who realise the value of an education, reach their full potential.

“I come for those students who want to be here... Who want to do better. I will go the extra mile for them.” “I want students to reach their full potential. That is why I am giving my best.” These responses suggested that there are teachers from no-fee schools who exhibit the willingness to invest effort in their work - characteristic of vigorous employees. In fact, participants from no-fee schools highlighted the importance of vigour among teachers. “The moment when you do more than is expected, I would say you become a good teacher... More than is expected. You have to walk that extra mile.”

Participants from both constituencies directed attention to challenges associated with employee engagement among public school teachers. Some participants mentioned that they are no longer engaged in their work and, as a consequence, plan to leave the teaching occupation in the foreseeable future. “You get to a point where you are so disillusioned that you ask yourself: Joh, is this what I signed up for?” These participants remarked that they no longer experience a sense of enthusiasm, inspiration and pride in their work (i.e. dedication). “As the time goes by, you come to that situation where you say: Ag, why should I bother?” These responses indicated that there are teachers from fee schools and no-fee schools who do not feel actively involved with their work - characteristic of dedicated employees.

Other participants highlighted challenges associated with employee engagement among their colleagues. “Ek geniet wat ek doen, maar vir van ons is dit ’n daaglikse taak. (*I enjoy what I do, but for some of us it is a daily task.*)” These participants explained that some teachers do not approach teaching with vigour, dedication and absorption. “There will always be a group... You will always find educators that go to school at 08:00 and wish to be released at 09:00. There are people who would wish to be absent if need be. There are people who would wish not to be told to go to class. I have seen that.” “Hier is mense wat nie hulle kant bring nie. Hulle koop nou maar net die tyd uit. (*There are people here who do not make a contribution. They are just buying time.*)” Participants mentioned that teachers, who are not engaged in their work, do not wilfully invest effort in their work (i.e. vigour). They only complete the work tasks that have been assigned to them. “Meeste van my kollegas, hy kom net Xhosa gee. Hy kom net Maths gee. Hy doen niks behalwe dit nie. (*Most of my colleagues, he only comes to teach Xhosa. He only comes to teach Maths. He does not do anything except this.*)”

Complaints about non-optimal levels of engagement among teachers were especially prevalent among participants from no-fee schools. Participants from the no-fee school constituency attributed challenges associated with student progression and achievement in many no-fee

schools to the absence of engaged teachers in these schools. To take a case in point, participants directed attention to non-optimal levels of dedication among teachers. “Hoekom kan ons (refers to no-fee schools) nie werk soos hierdie skole (refers to fee schools) nie? Ek sê vir jou dis omdat ons nie genoeg dedicated onderwysers het nie. Klaar. (*Why can't we (refers to no-fee schools) function like these schools (refers to fee schools)? I am telling you that it is because we do not have enough dedicated teachers.*)”

3.5.4.2. Teaching Motivation

Teaching motivation is an existing theoretical construct that was not included in the initial coding scheme. Information gathered during the initial interviews and a further review of the extant literature directed attention to the salience of teachers' motivation to pursue a career in teaching. The researcher decided to conceptualise teaching motivation as a personal resource among public school teachers in the Western Cape Province (Xanthopoulou et al., 2007).

Participants attributed their motivation to pursue a career in teaching to a number of sources during the initial interviews. Table 3.7 depicts examples of the ideas and concepts that relate to teaching motivation.

Broadly categorised, the sources that participants mentioned during the initial interviews are subsumed under Wrzesniewski, McCauley, Rozin and Schwartz's (1997) classification of work. Wrzesniewski and her colleagues suggested that individuals pursue a career, because it is valuable as an end in itself and serves the greater good (i.e. calling orientation); done primarily to make money (i.e. job orientation); or moderately fulfilling, but involves a constant process of trying to get promoted (i.e. career orientation).

Table 3.7
Examples of ideas and concepts that relate to teaching motivation

Fee schools	No-fee schools
Calling orientation <ul style="list-style-type: none"> • Ek kan 'n verskil maak (<i>I can make a difference</i>). • Ek het 'n groep waaraan ek behoort, en waar ek ook 'n bydrae kan maak (<i>I have a group that I belong to, and where I can make a contribution</i>). 	Calling orientation <ul style="list-style-type: none"> • Influencing or impacting young lives in a positive way. • Knowing that I am adding something on community development.
Job orientation <ul style="list-style-type: none"> • Motivering nie finansieël gedrewe nie (<i>Not financially motivated</i>). • Tyd/geld (<i>Time/money</i>). 	Job orientation <ul style="list-style-type: none"> • Inkomste (<i>Income</i>).

Table 3.7
Examples of ideas and concepts that relate to teaching motivation (Continued)

Fee schools	No-fee schools
Career orientation <ul style="list-style-type: none"> • Moontlikhede (<i>Possibilities</i>). • Kry kanse vir groei (<i>Get opportunities for growth</i>). 	Career orientation <ul style="list-style-type: none"> • (Not recorded).

Table 3.7 shows that participants from both constituencies listed ideas and concepts that relate to calling orientation and job orientation.

Participants from fee schools and no-fee schools alluded to job orientation. Participants described teaching as something that is done primarily to make money (i.e. job orientation). “Dis my werk. Ek word betaal om dit te doen. (*It is my job. I get paid to do this.*)” “Daar is baie mense wat nie hou van onderwys nie, maar hulle moet dit doen vir ’n inkomste. (*There are many people who do not like teaching, but they have to do it for an income.*)” “Sekere onderwysers kom net skool toe vir hulle salaris. Hulle gee nie om nie. (*Certain teachers only attend school for their salary. They do not care.*)” Interestingly, some participants explicitly mentioned that they are not motivated by monetary gain to pursue a career in teaching. “Money is not the key thing, because really they (refers to larger governing bodies) are paying us peanuts. The only thing that gets me to wake up in the morning is my love for the students.” “Jy voel jy word nie beloon nie. Geld is definitief nie ’n motivering nie. (*You feel you are not rewarded. Money is definitely not a source of motivation.*)”

Only participants from the fee school constituency listed ideas and concepts that relate to career orientation. These participants considered teaching as a stepping-stone that will enable them to pursue other career aspirations, such as a master’s degree in educational psychology. “Daar is ’n roeping op my lewe om met kinders spesifiek te werk. Ek glo nie ek gaan lank in die onderwys bly nie. Soos ek beoog om my meesters te doen in opvoedkundige sielkunde, omdat ek baie meer in daai rigting wil beweeg... Maar wat hulle vir ons gesê het is jy moet twee jaar praktiese ervaring hê. Toe het ons dosent vir ons voorgestel om dan self eers te gaan werk in ’n skool. (*There is a calling on my life to specifically work with children. I do not believe I will stay in teaching for a long time. I intend to do my masters in educational psychology, because I want to move much more in that direction... But what they told us is that you need two years of practical experience. Then our lecturer suggested that we first go work in a school.*)”

The majority of participants from both constituencies described teaching as something that is valuable as an end in itself and serves the greater good (i.e. calling orientation). “Onderwys is ’n roeping. (*Teaching is a calling.*)” “You know you have to be called to do this job. It is not anyone who can do it.” These responses corroborate with research that has shown that calling orientation is a significant source of motivation among teachers (e.g. Richardson & Watt, 2006; Watt & Richardson, 2007).

A review of the extant literature on the interface of career development, religion and spirituality revealed that there are several definitions of calling. Dalton (2001) described calling as a summons by God to pursue a particular career path, whereas Davidson and Caddell (1994) described calling as a call to serve God. There are researchers who have placed less emphasis on the source of calling. These researchers suggested that calling denotes a career path that is used to serve the greater good (e.g. Wrzesniewski et al., 1997). In response to the absence of a unified definition of calling, Dik and Duffy (2009) proposed a definition to guide future research.

Dik and his colleague defined calling as “a transcendent summons, experienced as originating beyond the self (i.e. transcendence summons); to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness (i.e. purposeful work); and that which holds other-oriented values and goals as primary sources of motivation (i.e. prosocial orientation)” (Dik & Duffy, 2009, p. 4). Participants from both constituencies, who alluded to calling orientation, referred to each of these dimensions during the initial interviews. For this reason, the researcher decided to define teaching motivation in accordance with Dik and Duffy (2009).

Participants from fee schools and no-fee schools described their motivation to pursue a career in teaching as a transcendent summons that originated beyond themselves (i.e. transcendence summons). “God made it purposefully for me to be here. It was a calling for me to be here.” “Ek het nie gedink ek sal ’n onderwyser word nie, maar die Here het my pad so oop gebaan. (*I did not think I would become a teacher, but the Lord paved my way.*)”

Participants from both constituencies also remarked that teaching enables them to demonstrate or derive a sense of purpose or meaningfulness (i.e. purposeful work). “I knew I wanted to be a teacher in Grade 8. I was born with it.” “Baie van ons wat hier is, is nie onderwysers nie. Ek

voel ek is gebore om 'n onderwyser te wees. Dit is die pad wat ek moet stap. (*Many of us who are here are not teachers. I feel I was born to be a teacher. This is the path I have to follow.*)”

The majority of participants, who alluded to calling orientation, attributed their motivation to pursue a career in teaching to other-oriented values and goals (i.e. prosocial orientation). “Ek kan regtig 'n verskil maak. Dis een van die min beroepe waar jy dit kan doen. (*I can really make a difference. It is one of the few occupations where you can do it.*)” “Die verskil wat jy kan maak. (*The difference you can make.*)” This was more prevalent among participants from no-fee schools. Participants from the no-fee school constituency remarked that pursuing a career in teaching, specifically in no-fee schools, enables them to meet the needs of students from previously disadvantaged communities. “I always knew I wanted to be a teacher, and I always knew I wanted to teach at one of these schools (refers to no-fee schools), because I want to make a difference.” “Ek het 'n special plek vir hierdie kinders (refers to students from no-fee schools). Om vir hulle 'n beter lewe te gee. Dit gee vir my vreugde om ander mense te help. (*I have a special place for these children (refers to students from no-fee schools). To give them a better life. It gives me great pleasure to help other people.*)”

3.5.4.3. Personal Characteristics

Personal characteristics consist of work locus of control, psychological capital and emotional intelligence. The dimensions of personal characteristics are existing theoretical constructs that were included in the initial coding scheme, apart from emotional intelligence. Even though emotional intelligence was not included in the initial coding scheme, information gathered during the initial interviews and a further review of the extant literature directed attention to the salience of teachers' emotional intelligence. The researcher decided to conceptualise personal characteristics as a personal resource among public school teachers in the Western Cape Province (Xanthopoulou et al., 2007).

Even though participants did not list ideas and concepts that relate to the above-mentioned personal characteristics on index cards, they alluded to them during the initial interviews.

As mentioned in Chapter 2, the researcher defined work locus of control in accordance with Spector (1988), who introduced the concept by extrapolating from Rotter's (1966) conceptualisation of locus of control. Spector defined work locus of control as the belief employees have of the relationship between their behaviour or personal characteristics and reinforcement or outcomes at work. In accordance with Rotter (1966), Spector (1988) also

highlighted the difference between an internal work locus of control and an external work locus of control. Employees, who have an internal work locus of control, known as internals, believe that reinforcement or outcomes at work depend on their behaviour or personal characteristics. In contrast, employees, who have an external work locus of control, believe that reinforcement or outcomes at work are beyond their control. These employees, known as externals, believe that reinforcement or outcomes at work are coincidental, under the control of influential individuals or unpredictable.

Participants from both constituencies referred to work locus of control during the initial interviews. This was especially prevalent among participants from no-fee schools. These participants remarked that teachers should not blame challenges associated with student progression and achievement in many no-fee schools on demands that are imposed by circumstances in the communities that surround these schools. Participants from the no-fee school constituency stated that teachers must strive for excellence despite the demands that are imposed by the social context of the neighbourhood. “Ons kan nie poverty blame nie. (*We can not blame poverty.*)” “It is a mental thing.” These responses suggested that there are teachers from no-fee schools who believe that reinforcement or outcomes at work depend on their behaviour or personal characteristics (i.e. internal work locus of control).

As mentioned in Chapter 2, the researcher defined psychological capital in accordance with Luthans et al. (2007). Based on their definition, this sub-affinity refers to the extent to which employees have the confidence to take on challenging tasks and invest the required energy and effort to achieve success (i.e. self-efficacy); make a positive attribution about achieving success in the present and the future (i.e. optimism); persevere toward work goals and, when needed, redirect paths (i.e. hope); and, when beset by problems and adversity at their work, sustain and bounce back to achieve success (i.e. resilience).

Participants from both constituencies referred to each of the above-mentioned dimensions of psychological capital during the initial interviews. As a case in point, participants pointed out that teachers are continuously faced with demands. “Dis net die heelyd goed wat jou pootjie... Wat jou pootjie... Wat jou pootjie. (*There are just constantly things that hinder you... That hinder you... That hinder you.*)” In consideration of this, participants stated that teachers must be able to persevere toward work goals despite the demands that they encounter (i.e. hope). “Jy kan net nooit moed op gee nie. Die hele idee is dat jy net nie moed opgee nie. (*You can never give up. The whole idea is that you just do not give up.*)” “You have to cope. You tell yourself

I have kids that I need to feed at home. I need a salary. Hard as it is, you have to cope for your future.”

Emotional intelligence integrates the concepts of emotions and intelligence by considering emotions as valuable sources of information that enable individuals to make sense of and navigate through their social environment. A review of the extant literature reveals that there are two primary approaches to emotional intelligence research, namely the ability model and the trait model. The ability model defines emotional intelligence as a group of relatively discrete mental abilities that are used to process emotional information (e.g. Mayer, Salovey & Caruso, 2008). In contrast, the trait model defines emotional intelligence as a personality trait that occupies the lower levels of the personality hierarchies (e.g. Petrides, Pita & Kokkinaki, 2007). The researcher decided to adopt the ability model of emotional intelligence in the study, in line with research that has shown that this personal characteristic can be developed through training and development interventions (e.g. Groves, McEnrue & Shen, 2008; Kirk, Schutte & Hine, 2011).

Based on the information gathered during the initial interviews and a review of the extant literature, the researcher decided to define emotional intelligence in accordance with Palmer, Stough, Harmer and Gignac (2009). Palmer and his colleagues proposed that emotional intelligence refers to the extent to which employees can perceive and understand their emotions (i.e. emotional self-awareness); manage their emotions (i.e. emotional self-management); control their emotions (i.e. emotional self-control); effectively express their emotions (i.e. emotional expression); perceive and understand the emotions of others (i.e. emotional awareness of others); positively influence the emotions of others (i.e. emotional management of others); and use emotional information in decision-making (i.e. emotional reasoning).

Participants from both constituencies referred to each of the above-mentioned dimensions of emotional intelligence during the initial interviews. As an illustration, participants explained that teachers must have high emotional intelligence to perceive and understand students' emotions (i.e. emotional awareness of others). “Learners differ. I analyse them one by one.” “To me, a good teacher is not a person who brings over the material. A good teacher is someone who understands where his children are coming from and he engages with them on their level. The moment you engage on that level, and you get something back, then you are a good teacher.”

3.5.4.4. *Coping Strategies*

Coping strategies are cognitive and behavioural efforts that employees use to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment (Folkman & Lazarus, 1980). As mentioned in Chapter 2, the JD-R model suggests that employees exhibit either crafting behaviour (i.e. job crafting) or self-undermining behaviour (i.e. self-undermining) to master, manage or tolerate the demands that they encounter (Harju, Hakanen & Schaufeli, 2016). Based on a review of the extant literature and a series of informal discussions with public school teachers prior to the commencement of the study, the researcher identified job crafting as a preliminary coping strategy among public school teachers in the Western Cape Province.

Even though participants did not list ideas and concepts that relate to coping strategies on index cards, they alluded to a number of cognitive and behavioural efforts during the initial interviews. It is, however, important to note that the coping strategies that participants mentioned could not be subsumed under the dimensions of job crafting (i.e. increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) (Tims et al., 2012). Participants identified alternative cognitive and behavioural efforts. This corresponds with the notion that the JD-R model may be adapted to include other individual strategies, apart from job crafting and self-undermining (Bakker & Demerouti, 2017).

The researcher decided to conceptualise the coping strategies that participants mentioned during the initial interviews in accordance with Pienaar and Rothmann (2003). In a cross-sectional study among 1 431 police officers in South Africa, Pienaar and Rothmann (2003) subjected Carver et al.'s (1989) COPE Questionnaire to Principal Components Analysis (PCA) with varimax rotation. The results suggested that the COPE Questionnaire consists of four internally consistent factors. These factors are approach coping, seeking emotional support, turning to religion and avoidance coping. A cross-sectional study conducted by Mostert and Joubert (2005) among 340 police officers in South Africa reported comparable results.

Participants from both constituencies mentioned that they use approach coping, seeking emotional support and turning to religion to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment. Some participants explained that they actively respond to the demands that they encounter (i.e. active coping).

“Address the wrongs. Don’t leave it. Address the wrongs. Whether it is a child or a teacher or the principal, address it.”

Other participants mentioned that they seek emotional support from friends, relatives or colleagues when beset by problems and adversity at their work (i.e. seeking emotional support). “When it becomes too much I look for a colleague who is willing to listen.” “As iets verkeerd gaan, dan kla ek daaroor by my kollegas. (*If something goes wrong, then I complain about it to my colleagues.*)” These participants remarked that it is especially helpful to seek emotional support from friends or relatives, who are also teachers, or colleagues, as these individuals can empathise with them. “Ek gesels graag oor ’n koffie met my kollegas. Hulle weet waar deur jy gaan. (*I like to chat with my colleagues over coffee. They know what you are going through.*)” “Ek praat met my kollegas. Ek weet mense sê jy moet nie kla nie, maar dit is cathartic want almal gaan deur dieselfde ding. You let of steam en dan gaan jy weer aan. (*I talk to my colleagues. I know people say you should not complain, but it is cathartic because everyone is going through the same thing. You let off steam and then you go on.*)”

The majority of participants from both constituencies directed attention to turning to religion as a coping strategy. “Geloof is my anker. (*Faith is my anchor.*)” “Ek dink as mens nie ’n gelowige mens is nie, kan jy dit maar los. (*I think if you are not a believer, you might as well drop it.*)” Participants from fee schools and no-fee schools explained that they find comfort in a Higher Power when beset by problems and adversity at their work. “My geloof is sterk. Dis waar ek my hulp vandaan kry in daardie tyd wat jy voel jy kan nie meer nie. (*My faith is strong. That is where I get my strength when you feel you can not go on anymore.*)” “Ek kan dit nie doen sonder ’n Hoër Mag nie. Ek voel die Here wys vir my wat ek moet doen. (*I can not do it without a Higher Power. I feel the Lord shows me what to do.*)” Participants added that they seek strength and guidance from a Higher Power through prayer and supplication. “Number one, I firmly believe in God. I am a Christian, and I draw strength from the Bible. I pray for wisdom every day.” “Ek sorg dat ek elke oggend stiltetyd hou. (*I make sure I have quiet time every morning.*)”

Participants from both constituencies commented on challenges associated with coping strategies among public school teachers. Participants explained that some teachers use avoidance coping to overcome difficulties or adapt to demands created by stressful transactions between themselves and their work environment. “Party sal sommer reguit vir jou sê: Ek baklei nie meer nie. Ek wag nou net... As my twee kinders klaar gestudeer is, dan gaan ek skuif. (*Some*

will say to you: I am not fighting anymore. I am just waiting... If my two children have finished studying, then I am going to move.)” “I stopped giving students homework, because it is a futile exercise. If you give them homework, half the class will come with their books clean.”

Mostert and Joubert (2005) subjected the above-mentioned internally consistent factors (i.e. approach coping, seeking emotional support, turning to religion and avoidance coping) to a second PCA with varimax rotation. Based on the results obtained, Mostert and her colleague concluded that these internally consistent factors can be divided into two dimensions, namely approach coping (i.e. active coping¹⁷, turning to religion and seeking emotional support) and avoidance coping. The researcher contends that these dimensions correspond with the distinction between engagement coping, or approach coping, and disengagement coping, or avoidance coping (e.g. Moos & Schaefer, 1993; Roth & Cohen, 1986) that was mentioned in Chapter 2.

As mentioned in Chapter 2, the researcher contends that it is important to realise the significance of proactive or preventative coping, as opposed to reactive coping, among public school teachers in the Western Cape Province (Greenglass & Fiksenbaum, 2009). However, neither participants from the fee school constituency nor participants from the no-fee school constituency alluded to proactive or preventative coping. This suggests that teachers do not use future-oriented cognitive and behavioural efforts to deal with demands before their occurrence. They merely respond to demands once they have occurred by adopting either engagement coping (i.e. active coping, turning to religion and seeking emotional support) or disengagement coping (i.e. avoidance coping).

3.5.4.5. *Perceived workload*

Perceived workload is an existing theoretical construct that was included in the initial coding scheme. As mentioned in Chapter 2, workload does not necessarily incur job stress. There are three aspects of workload that may incur job stress. The first aspect of workload that may incur job stress concerns the number of work tasks that have been assigned to employees in relation to their capacity (i.e. quantitative workload or overload). The second aspect relates to the difficulty of work tasks that have been assigned to employees in relation to their capacity (i.e. qualitative workload or overload). Lastly, workload may also incur job stress when the number

¹⁷ It is necessary to point out that Mostert and Joubert (2005) referred to active coping in order to describe Pienaar and Rothmann's (2003) internally consistent factor of approach coping.

and difficulty of work tasks that have been assigned to employees do not use their capacity (i.e. underload) (Katz & Kahn, 1978).

Participants described their perception of the number and difficulty of work tasks that have been assigned them during the initial interviews. Table 3.8 presents examples of the ideas and concepts that relate to perceived workload.

Although the researcher proposed that quantitative workload or overload is a significant source of job stress among public school teachers in the Western Cape Province in Chapter 2, participants from both constituencies referred to quantitative, as well as qualitative, workload or overload during the initial interviews.

Table 3.8
Examples of ideas and concepts that relate to perceived workload

Fee schools	No-fee schools
Quantitative workload <ul style="list-style-type: none"> • Te veel hooi op my vurk (<i>Too much to do</i>). • Skool inhoude, sport en funksies. TYD! (<i>School contents, sport and functions. TIME!</i>) 	Quantitative workload <ul style="list-style-type: none"> • Tyd om sillabus te voltooi en hersiening te doen (<i>Time to complete the syllabus and do revision</i>). • You as teacher must do most of the work.
Qualitative workload <ul style="list-style-type: none"> • Verskeidenheid - meer as een ding. (<i>Variety - more than one thing</i>). • Al die aktiwiteite waarby ek betrokke moet wees (<i>All the activities that I have to be involved in</i>). 	Qualitative workload <ul style="list-style-type: none"> • (Not recorded).

Even though Table 3.8 indicates that participants from no-fee schools did not list ideas and concepts that relate to qualitative workload on index cards, participants from both constituencies alluded to each dimension of perceived workload during the initial interviews.

Participants from fee schools and no-fee schools mentioned that they feel overwhelmed by the number of work tasks that are assigned to them (i.e. quantitative workload or overload). “Die werkslading is verskriklik. Ons begin 08:00. Dan moet jy onthou ons is van 08:00 tot 15:00 by die skool, maar jou beplanning kan jy nie in die dag doen nie. Jou beplanning moet jy na skool doen. (*The workload is terrible. We start at 08:00. Then you have to remember that we are at the school from 08:00 to 15:00, but your planning can not be done in the day. Your planning must be done after school.*)” “Dis baie werk. Dis vrek baie. Jy is moeg as jy by die huis kom. (*It is a lot of work. It is a lot. You are tired when you get home.*)” Interestingly, participants from both constituencies mentioned that the number of work tasks that are assigned to teachers

vary in accordance with the subjects that they teach. “Workload depends on teachers’ subjects.” “By party vakke is die werkslading net mal. (*The workload of some subjects is just crazy.*)” Participants specifically directed attention to quantitative workload or overload among language teachers. “Niemand besef hoeveel merkwerk daar in die tale is nie. Ek wens hulle wil dit net bietjie fine-tune. (*Nobody realises how much marking there is in languages. I wish they just want to fine tune it a little.*)” “Ons werkslading verskil van persoon tot persoon. Ek kry die onderwysers wat taal gee baie jammer. (*Our workload differs from person to person. I pity language teachers.*)”

In addition to quantitative workload or overload, participants from both constituencies also stated that they feel overwhelmed by the difficulty of work tasks that are assigned to them (i.e. qualitative workload or overload). This was more prevalent among participants from no-fee schools. Participants from the no-fee school constituency highlighted that teachers from no-fee schools are frequently expected to perform work tasks that are too difficult, because they do not have the knowledge, skills or abilities to complete them. “I am not only a teacher. I become a mother. I give advice when I see a learner is derailing. You also become a social worker. We were never trained. We were never shown how to deal with these problems.” “Teachers stand in the gap too frequently. We do not have the skills or time.”

The researcher suggests that challenges associated with quantitative, as well as qualitative, workload or overload among public school teachers in the Western Cape Province are as a result of illegitimate tasks. Illegitimate tasks is an existing theoretical construct (Semmer, Tschan, Meier, Facchin & Jacobshagen, 2010). Two types of illegitimate tasks are mentioned in the extant literature, namely unnecessary tasks and unreasonable tasks. Unnecessary tasks are not considered legitimate, because the work tasks themselves lack meaning and importance or are poorly organised. Unreasonable tasks, on the other hand, are not considered legitimate, because the work tasks exceed the level of responsibility that can normally be expected of employees in a particular occupational role. Employees typically strive to maintain a positive sense of self. Illegitimate tasks pose a threat to their professional identity (Semmer et al., 2015).

Participants from both constituencies generally attributed challenges associated with quantitative workload or overload to administrative tasks that are imposed by the prescribed curriculum (i.e. CAPS). “Ek voel onderwysers word oorlaai met administratiewe take. Dit is alles met CAPS. (*I feel teachers are being overloaded with administrative tasks. It is all with CAPS.*)” “Ek is eintlik mal oor ons nuwe kurrikulum, maar daar is baie goed wat mense nie by

uitkom nie. Tyd is 'n probleem. (*I actually really like our new curriculum, but there are many things that people do not get around to. Time is a problem.*)” Participants described the above-mentioned administrative tasks as unnecessary, because the work tasks themselves lack meaning and importance or have been poorly organised by larger governing bodies. “Die admin... Dit is te veel. Ek dink vir baie onderwysers is klasgee die rede hoekom hulle op onderwys besluit het, maar dis maar 'n kwart van wat jy doen. Die admin is bureaucratic nonsense. Dit maak nie eintlik saak nie. Dis mooi maak goedjies. Dit is laborious en time-consuming. (*The admin... It is too much. I think for a lot of teachers teaching is the reason why they decided to pursue a career in teaching, but it is only a quarter of what you do. The admin is bureaucratic nonsense. It does not really matter. It is unnecessary. It is laborious and time consuming.*)” This corresponds with the notion of unnecessary tasks (Semmer et al., 2015).

Along the same lines, participants from fee schools and no-fee schools generally attributed challenges associated with qualitative workload or overload to work tasks that exceed the level of responsibility that can normally be expected of public school teachers. This was more prevalent among participants from the no-fee school constituency. “Jy sit eintlik hier met 'n situasie waar jy met jou hande in jou hare sit. Jy moet daaglik... Moet jy meer beplan ten opsigte van pastorale sorg en omgee vir die kinders. Jy kan nie eintlik die kurrikulum as dit werklik waar develop nie, want ten einde... Voordat jy kan onderrig gee moet jy eers gaan kyk na wat het nou weer gebeur daar by die huis... Jy is glad nie net 'n onderwyser nie. (*You actually do not know what to do. On a daily basis you have to... You have to plan more in terms of pastoral care and caring for the children. You can not really develop the curriculum, because in order for... Before you can teach you first have to look at what has happened at home... You are not just a teacher.*)” This corresponds with the notion of unreasonable tasks (Semmer et al., 2015).

3.5.4.6. School Climate

School climate is an existing theoretical construct that was not included in the initial coding scheme. Information gathered during the initial interviews and a further review of the extant literature directed attention to the salience of teachers' perception of school climate. The researcher decided to conceptualise school climate as a differential job resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. with the appointment of a new principal or

teachers), she suggests that school climate remains relatively stable over time. For this reason, it will be operationalised as a structural job resource (Ten Brummelhuis & Bakker, 2012).

School climate is a relatively stable quality that describes teachers' perception of routine behaviour in schools (Hoy, Tarter & Kottkamp, 1991). Even though this affinity grouping has been defined in a number of ways throughout literature, the researcher drew on Hoy, Hannum and Tschannen-Moran's (1998) definition of school climate in the study. Hoy and his colleagues defined school climate as the extent to which a school is motivated by a pursuit of excellence (i.e. academic press); the principal is supportive and egalitarian (i.e. collegial leadership); teachers are committed to students and supportive of one another (i.e. teacher professionalism); and members of the community and the parents of students influence school policy and functioning (i.e. community pressure).

Participants described their perception of the climate of their school during the initial interviews. Table 3.9 depicts examples of the ideas and concepts that relate to school climate.

Table 3.9
Examples of ideas and concepts that relate to school climate

Fee schools	No-fee schools
Collegial leadership <ul style="list-style-type: none"> • Duidelike riglyne - weet waarheen op pad is (<i>Clear guidelines - know where you are going</i>). • Nie alle personeellede is dieselfde belas nie (<i>Not all staff members are taxed the same</i>). 	Collegial leadership <ul style="list-style-type: none"> • Goeie prinsipaal (<i>Good principal</i>). • Ondersteuning van kollegas, prinsipaal, en WKOD amptenare (<i>Support from colleagues, principals, and WCED officials</i>).
Teacher professionalism <ul style="list-style-type: none"> • Personeel se ondersteuning (<i>Staff's support</i>). • Respek van kollegas (<i>Respect of colleagues</i>). 	Teacher professionalism <ul style="list-style-type: none"> • Negatiewe opvoeders (<i>Negative educators</i>). • Ondersteuning van kollegas, prinsipaal, en WKOD amptenare (<i>Support from colleagues, principals, and WCED officials</i>).

Table 3.9 shows that participants from both constituencies listed ideas and concepts that relate to collegial leadership and teacher professionalism. Although participants also alluded to community pressure during the initial interviews, the researcher decided to exclude this dimension from her conceptualisation of school climate. She claimed that community pressure was, to some extent, subsumed under other affinity groupings (i.e. social context of the neighbourhood and parental attitudes).

Participants from both constituencies mentioned that principals play an important role in the creation of a favourable school climate (i.e. collegial leadership). "As die kop (refers to

principals) vrot is, is die hele lyf (refers to teachers) vrot. (*If the head (refers to principals) is rotten, the whole body (refers to teachers) is rotten.*)” “Die hoof is die ene wat die skool bymekaar moet hou. (*The principal is the one that has to keep the school together.*)” Participants also referred to favourable outcomes associated with collegial leadership. “The support from a principal is very important. I have learnt so much from my principal.” “’n Skoolhoof moet jou ondersteun, want as hy nie vir jou ondersteun en erkenning gee nie dan gaan jy later hang skouers skool toe kom. (*A principal must support you, because if he does not support you and give you recognition then you will become demotivated.*)”

Participants from fee schools and no-fee schools recommended that principals should be involved in the day-to-day functioning of a school. “Dit is seker die belangrikste. ’n Hoof moet on par wees met alles wat in ’n skool aan die gang is. (*This is probably the most important. A principal must be on par with everything that is going on in a school.*)” “I believe that a school can change if you have a hands-on principal.” Participants added that principals should be approachable and open to the inputs of others. “Dié hoof is ’n mense-mens. Hy kan homself vereenselwig met ons. Hy is nie daar en ons is hier nie. Hy is betrokke by ons. (*This principal is a people’s person. He can associate with us. He is not there and we are here. He is involved with us.*)” “I happened to work with these principals that look like cups behind glass, and it was... I don’t like to label it... Very, very difficult for me to operate, because if a principal is unapproachable, he won’t give you the opportunity like this principal is doing.”

Participants from both constituencies alluded to challenges associated with collegial leadership in public schools. This was especially prevalent among participants from no-fee schools. As an illustration, participants from the no-fee school constituency complained that the principals of many no-fee schools are not suitably qualified. “We have principals who cannot lead. This is why our schools (refers to no-fee schools) look like this. It is chaos.” “Our leadership in this school is very weak. Weak in the sense that issues are not addressed. This trickles down to the rest of the teachers.” “Kyk, in ’n company, die manager, hy doen die meeste. Hy is eerste in en hy is laaste uit. Hier is dit hoe hoër jy opgaan, hoe minder werk jy. Die hoof se werkslading word afgeskuif na die voetsoldaat (refers to newly qualified teachers). (*Look, in a company, the manager, he does the most. He is in first and he is out last. The higher you go here, the less you work. The principal’s workload is passed on to the foot soldier (refers to newly qualified teachers).*)”

Participants from no-fee schools also directed attention to the prevalence of favouritism in many no-fee schools. “There is that problem of favouritism. For example, we already know that if so-and-so are late for work it is okay, but if it is other individuals, there will be problems. That person will be shouted at. Or if certain individuals have an idea or are coming with an initiative, it will be taken serious.” “The problem that I observed... You know favouritism? It is maybe just in our genes, because you get support depending on how you relate with the principal. If you are unfortunately not relating well or not friends with certain people, other people will just have an attitude towards you.” “I believe the principal should do something about this, because it is the same people who are absent the whole time. However, at school, like at any workplace, it may be that the principal has a relationship with that person.”

In addition to collegial leadership, participants from both constituencies also remarked that their colleagues play an important role in the creation of a favourable school climate (i.e. teacher professionalism). “The support is very important (refers to support from colleagues), because some of the things... You cannot do it alone.” “Dit maak jou werk en jou werksomgewing makliker. In die skool kan jy nie op ’n eiland wees nie. Ons het mos vak spanne en jou vak span moet eintlik hegter wees, want julle is die mense wat mekaar moet ondersteun en kennis kan uitruil. (*It makes your work and your work environment easier. In the school you can not be on an island. We have subject teams and your subject team must actually be closer, because you are the people who need to support each other and exchange knowledge.*)” “Die onderwysers moet mekaar ondersteun anders is daar groot moeilikheid. (*The teachers must support each other, otherwise there is a lot of trouble.*)” “Colleagues should work together as a team. They should share resources.”

Along the same lines as collegial leadership, participants from fee schools and no-fee schools also directed attention to challenges associated with teacher professionalism in public schools. This was also especially prevalent among participants from no-fee schools. “I am not going to lie to you and say that everyone is doing their part. They are not all angels.” To take a case in point, participants from the no-fee school constituency complained that the teachers of many no-fee schools are not supportive of one another. “I mean we are many, many staff. We are almost 24, 25 educators... Twenty-four teaching staff, but according to me, there are those that are not doing enough. They are not doing enough.” “Hulle is baie selfsugtig. In hulle domein moet alles net vir hulle wees. Hulle sal vir jou hulp vra, maar as jy vra, dan wil hulle nie help nie. (*They are very selfish. In their domain everything should be just for them. They will ask*

for your help, but if you ask, then they will not help.)” “We have a big problem with absent teachers at this school. There has not been a day where there have not been five teachers absent. This is wrong man. You are putting us (refers to teachers who are present) under pressure.”

Participants from both constituencies explained that tension arises between teachers from time to time. “You come with this feeling that you want to change things, but then the people you come to have got their thinking as well. Now there is going to be a conflict of interest. There are people who are going to feel like you are undermining them. People feeling that you are overtaking them. People feeling that you are not considering what they are up to. So, you end up having to put back... To keep back your feelings of what you want to do, because you are respecting other people.” Interestingly, participants clarified that such tensions are more noticeable among teachers from different age groups. “Because I am new I cannot always voice my opinions. We (refers to newly qualified teachers) have a lot of new ideas that we want to implement, but then they (refers to experienced teachers) will be like: Maar dit word nie só gedoen nie. They will be like: Ons hou al jare skool, ons weet wat hier aangaan. (*Because I am new I cannot always voice my opinions. We (refers to newly qualified teachers) have a lot of new ideas that we want to implement, but then they (refers to experienced teachers) will be like: But it is not done that way. They will be like: We have been teaching for many years, we know what is going on here.*)”

3.5.4.7. Student-Teacher Relationships and Interactions

Student-teacher relationships and interactions is not an existing theoretical construct, but was included in the initial coding scheme.

Existing research has primarily concentrated on student behaviour in the context of student-teacher relationships and interactions and its influence on the emotions of teachers (e.g. Frenzel, Goetz, Lüdtke, Pekrun & Sutton, 2009; Frenzel, Goetz, Stephens & Jacob, 2009). The interpersonal aspect of student-teacher relationships and interactions has largely been ignored. Based on the information gathered during the initial interviews and a review of the extant literature, the researcher decided to include both aspects in her conceptualisation of student-teacher relationships and interactions.

The researcher drew on Frenzel's (2014) model of teacher emotions to identify the dimensions that are subsumed under student-teacher relationships and interactions. His model of teacher emotions identifies teaching goals and student behaviours that correspond with each of these

goals. Student behaviours that are relevant to the study include motivational behaviour (i.e. student engagement), social-emotional behaviour (i.e. discipline) and relational behaviour (i.e. closeness).

Participants described their perception of the relationships and interactions between themselves and their students during the initial interviews. Table 3.10 presents examples of the ideas and concepts that relate to student-teacher relationships and interactions.

Table 3.10
Examples of ideas and concepts that relate to student-teacher relationships and interactions

Fee schools	No-fee schools
Motivational behaviour <ul style="list-style-type: none"> • Leerder toewyding (<i>Learner dedication</i>). • Leerders se gebrek aan akademiese pligsgetrouheid (<i>Learners' lack of academic conscientiousness</i>). 	Motivational behaviour <ul style="list-style-type: none"> • Learners' eagerness/willingness to learn. • Leerders se ingesteldheid teenoor skoolwerk (<i>Learners' attitude toward schoolwork</i>).
Social-emotional behaviour <ul style="list-style-type: none"> • Dissipline (<i>Discipline</i>). • Leerders wat gesag uitdaag (<i>Learners who challenge authority</i>). 	Social-emotional behaviour <ul style="list-style-type: none"> • Discipline. • Stout leerders (<i>Naughty learners</i>).
Relational behaviour <ul style="list-style-type: none"> • Respek onder leerders - vir my, en vir mekaar (<i>Respect among learners - for me, and for one another</i>). • Spesiale geestelike band met sommige leerders (<i>Special spiritual bond with some learners</i>). 	Relational behaviour <ul style="list-style-type: none"> • Appreciation/being appreciated. • Good relationships with learners.

Table 3.10 indicates that participants from both constituencies listed ideas and concepts that relate to each of the above-mentioned dimensions of student-teacher relationships and interactions.

Participants from fee schools and no-fee schools referred to favourable outcomes associated with student-teacher relationships and interactions. Participants explained that student-teacher relationships and interactions influence the quality of teaching and learning processes. “Dit is die belangrikste rol as jy praat van leer. As daai verhouding nie daar is nie kan leer nie plaasvind nie. Daai is die belangrikste rol. (*This is the most important aspect when you talk about learning. If that relationship is not there, learning can not take place. That is the most important role.*)” “The most important thing is to win the students. If you do not have that relationship with the students, it will contribute to them dropping out.” “n Verhouding met die studente is belangrik, want dit is presies hoe die student gaan ingestel wees teenoor jou en

teenoor jou vak. (*A relationship with the students is important, because it determines how the student feels toward you and toward your subject.*)”

Participants from both constituencies directed attention to challenges associated with student-teacher relationships and interactions in public schools. This was more prevalent among participants from no-fee schools. “Die teachers is angry towards die kinders. Die kinders is angry towards die teachers. Hulle is angry towards mekaar. (*The teachers are angry at the children. The children are angry at the teachers. They are angry at each other.*)” These participants explained that challenges associated with student-teacher relationships and interactions hold inevitable consequences for teaching and learning processes, as it interferes with time spent teaching. “In die meeste van die tyd moet jy konflik hanteer. Jy gee nie eintlik klas nie. Dis in ’n mindere mate. (*Most of the time you have to deal with conflict. You do not actually teach. To a lesser extent.*)” “The lack of discipline blocks you to transform them.”

Some participants from no-fee schools directed attention to ill-discipline among students (i.e. social-emotional behaviour). “You become the police between the learners. Some fights are pretty fights. Other fights turn out to be something. Sometimes learners will stab one another.” “Ek het nou dié skêr afgevat, want een laaitie wou ’n ander laaitie gesteek het met die skêr en dit is nou eintlik iets kleins. (*I have just confiscated the scissors, because a boy wanted to stab another boy with the scissors and it is actually about something small.*)” “Hulle slaan mekaar. Hulle steek mekaar. Dié een gooi dié ander een met ’n golf bal teen die kop. Dié seun klap ’n meisie. Twee seuns baklei. (*They beat each other. They stab each other. The one throws the other one with a golf ball against the head. That boy slaps a girl. Two boys fight.*)” “We get students coming to school drunk. We get students coming to school who smoke dagga.”

Other participants from the no-fee school constituency alluded to challenges associated with the motivational behaviour of students (i.e. student engagement). “We have late coming. When the school starts at 08:00 some of them rock up here at 08:30. Some of them come at 08:20. We close the gate at 08:00 then more than half the school is outside the gate.” “Hulle ingesteldheid is van so ’n aard, baie van hulle, dat hulle nie belangstel in opvoeding nie. (*Their attitude is of such a nature, many of them, that they are not interested in education.*)” “Ons kinders (refers to students from no-fee schools), hulle kom skool toe, nie omdat hulle hier wil wees nie, maar omdat hulle ouers hulle gestuur het. So baie keer, dwarsdeur die jaar, is afwesigheid ’n groot probleem. Die wat in die klaskamer uitkom... Hulle is gemiddeld 45 in ’n klas, dan werk ek met 35 gemiddeld. En nou, dis nie dat hulle by die huis is nie. Hulle loop op

die skool rond. (*Our children (refers to students from no-fee schools), they come to school, not because they want to be here, but because their parents have sent them. So many times, throughout the year, absenteeism is a major problem. Those who are in the classroom... They are on average 45 in a class, but then I work with 35 on average. And now, it is not that they are at home. They walk around in the school.*)”

In addition, participants from no-fee schools also pointed to challenges associated with the relational behaviour of students. “As jy vir hom aanspreek voor die klas, dan wil hy sommer vir jou taal gee. Dan is dit ’n hele konflik situasie. Dan sê hy sommer: Die onderwyser is ’n P, voor die ander leerders. (*If you address him in front of the class, then he wants to swear at you. Then it is a conflict situation. Then he says: The teacher is a P, in front of the other learners.*)” “Die kinders in my Graad 10 klas is al oud and they are gangsters. (*The kids in my Grade 10 class are old and they are gangsters.*) I sometimes... I fear. Not fear, but there is this one boy in my class this year, and he has been part of these gangs throwing stones and stuff. You can just see in his face. You know he looks scary. You won’t want to address him, because you don’t know what he can do. Anything can happen.” “The kids talk to the teachers like they want. They use swear words. They just don't have respect for teachers.”

Participants from both constituencies remarked that the challenges public school teachers’ experience with student-teacher relationships and interactions vary in accordance with the grades that they teach. More specifically, participants from fee schools and no-fee schools mentioned that challenges associated with student-teacher relationships and interactions are more noticeable among students in Grades 8 and 9. “Jy weet seker nou al jou Graad 9s is jou moeilikste jaar deur die bank. (*You probably know by now that your Grade 9s are your most challenging year across the board.*)” “Jou Graad 8s en 9s is eintlik jou groot probleem wanneer dit kom by dissipline. (*Your Grade 8s and 9s are actually your big problem when it comes to discipline.*)” “You know the Grade 8s and 9s... They are the very disruptive grades. One would not like to teach those classes forever. You know Grade 8 and 9 learners do not know why they are in school, but then in Grade 10 they start to see this is the reason.”

3.5.4.8. School Faculties and Teaching Resources

School facilities and teaching resources is not an existing theoretical construct, but was included in the initial coding scheme.

Based on the information gathered during the initial interviews and a review of the extant literature, the researcher proposed that this affinity grouping comprised of two dimensions, namely physical structure and teaching resources. More specifically, it involved the extent to which the physical structure of a particular school (e.g. ablution facilities, classrooms, fencing, laboratories, sports fields or staffroom and offices) and its teaching resources (e.g. instructional material and equipment or IT and other electronic infrastructure) are conducive to teaching and learning processes.

Participants described their perception of the school facilities and teaching resources of their school during the initial interviews. Table 3.11 depicts examples of the ideas and concepts that relate to school facilities and teaching resources.

Table 3.11

Examples of ideas and concepts that relate to school facilities and teaching resources

Fee schools	No-fee schools
Physical structure <ul style="list-style-type: none"> • Fasiliteite - skoon klas, rekenaar, projektor, netbalbane + balle (Facilities - clean classroom, computer, projector, netball courts + balls). • Fisiese omgewing (<i>Physical environment</i>). 	Physical structure <ul style="list-style-type: none"> • Grootte van klas getalle (<i>Class sizes</i>). • Infrastruktuur (<i>Infrastructure</i>).
Teaching resources <ul style="list-style-type: none"> • Gereedskap om sinvolle lesse aan te bied (<i>Tools to offer meaningful lessons</i>). • Geriewe/klaskamer toerusting (<i>Facilities/classroom equipment</i>). 	Teaching resources <ul style="list-style-type: none"> • Leer ondersteuning materiaal (<i>Learning support material</i>). • My klaskamer is groot en het nodige tegnologie vir les aanbieding (<i>My classroom is large and has the necessary technology to present lessons</i>).

Table 3.11 shows that participants from both constituencies listed ideas and concepts that relate to each of the above-mentioned dimensions of school facilities and teaching resources.

Participants from fee schools and no-fee schools referred to favourable outcomes associated with school facilities and teaching resources. “Fortunately, in our school we have the projectors and the whiteboards. So, it is easy now in our school to make teaching interesting. We have computers and the computer lab.” “We have projectors and laptops and the network. It makes work easy. Very, very easy to teach.” “’n Gesonde ruimte skep ’n gesonde gees. (*A healthy space creates a healthy mind.*)” “Ons probeer die skoolterrein netjies hou om vir hulle ’n rustige atmosfeer te skep. Lyk my as die skool deurmekaar lyk, dan is die leerders ook sommer

deurmekaar. (*We try to keep the school grounds neat to create a calm atmosphere for them. It seems to me that if the school looks unorganised, then the learners are also unorganised.*)”

Participants from both constituencies highlighted challenges associated with school facilities and teaching resources in public schools. This was especially prevalent among participants from no-fee schools. These participants mentioned that the physical structure of many no-fee schools is not conducive to teaching and learning processes. To take a case in point, participants from the no-fee school constituency explained that the size of their classrooms compromises the quality of teaching and learning processes. “We have big numbers... Fifty-five students. I am sitting with 55 learners. Sometimes they will stand. There are no desks.” “Omdat klasse klein is kan teaching nie regtig plaasvind nie, want onthou kinders is mos kinders. Nou verbeel jou hulle sit so ’n klomp op mekaar. Dit is chaos. (*Because classes are small teaching can not really take place, because remember children are children. Now imagine you put such a lot of them together. There is chaos.*)” “You see our classrooms, they are small. They will be packed. Thirty minutes will be gone... Not even teaching, because you are saying: Keep quiet! Keep quiet! Keep quiet!”

In addition to the physical structure of their school, participants from the no-fee school constituency also mentioned that the teaching resources in many no-fee schools are not conducive to teaching and learning processes. As an example, participants from no-fee schools explained that they do not have access to adequate instructional material and equipment in their classrooms. “Have you seen our classes? There is nothing... Only chalk and a green board.” “Our school cannot afford textbooks. So, at the end of the day, I have to use my money to buy resources.” “Ek kan nie dié vak gee nie, want die resources wat die kinders nodig het is nie by die skool nie. Ek gaan siek raak. (*I can not teach this subject, because the resources that the children need are not at the school. I am going to get sick.*)” Participants from no-fee schools added that challenges associated with the quality of teaching resources make it difficult to engage students, as it plays an important role in enhancing their learning experience. “Kinders moet goed sien om te leer. (*Children must see things to learn.*)” “These days it is very important to have additional resources in terms of teaching the subject, because it can be boring to some kids if you always use the old methods.”

3.5.4.9. *Parental Attitudes*

Parental attitudes is not an existing theoretical construct, but was, to some extent, included in the initial coding scheme (i.e. parental involvement). By extrapolating from Bronfenbrenner's (1977) ecological systems theory, the researcher decided to conceptualise parental attitudes as a differential contextual resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. depending on the school calendar), she suggests that parental attitudes remain relatively stable over time. For this reason, the researcher contends that it is a structural contextual resource (Ten Brummelhuis & Bakker, 2012).

Based on the information gathered during the initial interviews and a review of the extant literature, the researcher proposed that parental attitudes comprised of six dimensions, namely value of education, educational resources, learning at home, school organisations and communication with teachers. More specifically, it involved the extent to which parents or next of kin of students instil the value of education by setting clear expectations and standards of performance, and encouraging student achievement and progression (i.e. value of education); provide students with basic educational resources (e.g. backpack, school uniform and shoes or stationery) (i.e. educational resources); create a home environment at home that is supportive of and conducive to learning (e.g. providing a designated space for homework), and check whether students' homework has been completed (i.e. learning at home); volunteer at the school (e.g. assisting with fundraising activities), belong to parent-teacher organisations, and attend school meetings or activities (i.e. school organisations); and contact teachers to enquire about students' progress, and ask for guidelines to support student achievement and progression (i.e. communication with teachers).

Although participants from both constituencies did not list ideas and concepts that relate to each of the above-mentioned dimensions of parental attitudes on index cards, they alluded to them during the initial interviews.

Participants from fee schools and no-fee schools highlighted the importance of parental attitudes in the education process. "Ouers moet betrokke wees om 'n leer omgewing te skep. (*Parents must be involved to create a learning environment.*)" "Dit begin by die ouerhuis. (*It starts at home.*)" "Parents influence our job, because education is built in three. You see that

three-foot pot. The educator, the child and the parent. It makes it easy if the parent is involved in the education process.”

Participants from both constituencies directed attention to challenges associated with parental attitudes in public schools. This was more prevalent among participants from no-fee schools. “If I might be honest, we are on our own. These are our kids. The parents are not there. We are on our own.” “The parents here at school, of our children (refers to students from no-fee schools), are not involved. We are the only people that are involved.” “Sometimes they (refers to the parents of students) are working against the school, even though they want their children to have a better life (after completing Grade 12).” As an illustration, participants from no-fee schools mentioned that the parents of students do not instil the value of an education (i.e. value of education). This, in turn, negatively influences their work experience. “It becomes very difficult to convince the child that education is important if that is not being enforced at home. You might be teaching a student, but they are thinking my parent has money and they did not even go to school. It becomes very, very difficult to motivate these students.”

In addition to challenges associated with instilling the value of education, participants from the no-fee school constituency also mentioned that the parents of students rarely check whether students’ homework has been completed (i.e. learning at home). “If you give them homework, half the class will come with their books clean. They did not do their homework, which means their parents did not check their homework.” “When it comes to homework and things, they (refers to the parents of students) are not involved at all.” “Ouers kom net om rapporte te kom afhaal... Van die ouers kom nie eens meer almal rapporte haal nie. (*Parents only come to collect report cards... Some parents do not even come to collect report cards anymore.*)”

It is, however, important to mention that parental apathy cannot be generalised to all no-fee schools. Some participants from the no-fee school constituency specifically pointed out that there are parents who are actively involved in the education process. “As ons ’n oueraand het... Wat ek ervaar by die skool... As jy vir die ouers sê dit begin 19:30, staan baie van die ouers 19:00 hier. (*If we have a parent-teacher evening... What I experience at this school... If you tell the parents it starts at 19:30, many of the parents stand here at 19:00.*)” “Some parents are involved.” “Die ouers hier is regtig betrokke. (*The parents here are really involved.*)”

3.5.4.10. Social Context of the Neighbourhood

Social context of the neighbourhood is not an existing theoretical construct. Although the researcher anticipated that there might be subtle differences in the demands (i.e. job demands and contextual demands) and resources (i.e. job demands and contextual resources) teachers employed in fee schools and no-fee schools encounter, this affinity grouping was not included in the initial coding scheme. Information gathered during the initial interviews and a further review of the extant literature directed attention to the salience of the circumstances in the communities that surround public schools. By extrapolating from Bronfenbrenner's (1977) ecological systems theory, the researcher decided to conceptualise social context of the neighbourhood as a differential contextual resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. with the implementation of community-based interventions), she suggests that social context of the neighbourhood remains relatively stable over time. For this reason, it will be operationalised as a structural contextual resource (Ten Brummelhuis & Bakker, 2012).

Based on the information gathered during the initial interviews and a review of the extant literature, the researcher proposed that this affinity grouping comprised of two dimensions, namely social security and household composition. More specifically, it involved the extent to which the basic needs of students are met in terms of safety and security, housing, healthcare, nutrition and transport (i.e. social security), and their household composition, in terms of the number of caregiving adults with whom they live (e.g. single-parent household, foster care or child-headed household), promote student progression and achievement.

Although participants from both constituencies did not list ideas and concepts that relate to each of the above-mentioned dimensions of social context of the neighbourhood on index cards, they alluded to them during the initial interviews. This was especially prevalent among participants from no-fee schools.

Participants from the no-fee school constituency mentioned that the basic needs of students from no-fee schools are frequently not met. Some participants from no-fee schools explained that the nutritional needs of students from no-fee schools are frequently not met. "You can see that there are learners who are hungry." "That child goes home, and there are challenges. Poverty... You have abject poverty at certain homes. When I talk about poverty... Some children don't even have food to eat when they come home at night." These participants

recommended that feeding schemes are a necessity at no-fee schools. “They come to school for the sole purpose to have food, because we have a feeding scheme.” “They come for food. So, they can get food. If we didn't have the feeding, the classrooms would be empty.”

Other participants from the no-fee school constituency remarked that students from no-fee schools often live in unfavourable conditions. “If you can go around (mentions the name of a nearby township) you will find out that the conditions here are not conducive for young learners. It is very small houses. Some of them are living in the hostels where there is a lot of noise. There is little space for studying, and even the parents are negligent.” “Students mostly stay in a one-room shed. If it is a three-room shed then it means it is bigger, but then there are more than five people living there. After school, they roam around in the streets. Not because of a choice they make, but because there is no space at home.” “The socio-economic problems... The background that they are coming from... They are coming from this one-room house. The mother takes alcohol, and the mother is being abused all the time. They are used to the vulgar language. If you talk soft to them and respect them, they do not understand. They want you to shout and shout and shout.”

In addition to the above-mentioned challenges associated with the social security of students, participants from the no-fee school constituency also mentioned that the household composition of students from no-fee schools is often not conducive to student progression and achievement. Some participants from no-fee schools mentioned that the parents of students are still young. “Baie van die kinders se ouers is nog kinders. (*Many of the children's parents are still children.*)” “There is no parental guidance. Sometimes you will find out the parents are still young. They are still busy with their own stuff. So, the learners are neglected. It is sickening.” “You see most of our students don't have parents. They grow up with their grandparents. It is sad... Or some of their parents are still children.”

Other participants from no-fee schools explained that the parents of students live far away. “Some of the students had to leave their parents in the Eastern Cape to come here for better education, because they have been growing up in rural areas. These students stay with relatives.” “Kyk, meeste van hulle kom van die Oos-Kaap af. Dan kom hulle hier aan en kom bly by ouma of oupa. Dis nie die kind se ouers nie. Die kind se ouers is nie hier nie. Die kind se ouers is in die Oos-Kaap. Hy bly by 'n familielid of 'n vriend. (*Look, most of them come from the Eastern Cape. They arrive here and stay with grandmother or grandfather. It is not the child's parents. The child's parents are not here. The child's parents are in the Eastern Cape.*)

He stays with a relative or a friend.)” “Most of the kids that are here are not staying with biological parents. So, you can imagine that the aunt won’t have that, or the uncle, won’t have that passion about that child. We still have those hiccups.”

Interestingly, participants from both constituencies distinguished between fee schools and no-fee schools based on the social context of the neighbourhood. “If we take township and rural schools (refers to no-fee schools)... Over there (refers to fee schools) the community is very cooperative. At times here the community can cooperate, but you see the community over here... People have different agendas. You may find people dealing with drugs. They do not deal with learners, so they don’t even care if the learners are stabbed.” “The context of a township school (refers to no-fee schools) and the context in a suburb school (refers to fee schools) are vastly different. You get a child... You talk about a house. That child cannot refer to it, because that child lives in a shack. For that child, a shack is a house. Not the house as we know it... You need to understand where this child, the child that I am trying to teach, is coming from.” This corresponds with the central tenets of the social identity theory (Tajfel & Turner, 1979).

The social identity theory is an interactionist social psychological theory regarding the role that self-conception and related cognitive processes play in group dynamics and intergroup relationships (Tajfel & Turner, 1979). Tajfel (1972) first introduced the concept of social identity. He explained that it denotes an “individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership” (Tajfel, 1972, p. 292). To put it differently, social identity refers to individuals’ sense of who they are based on the social group to which they belong.

The social identity theory proposes that individuals do not only have one personal self, but multiple selves and identities. Each of their selves and identities are associated with different social groups within which they perform a particular role. Individuals perceive those individuals with whom they can socially identify as part of their in-group. In contrast, individuals perceive those individuals with whom they cannot socially identify as part of their out-group (Tajfel & Turner, 1979). In line with this, participants from the fee school constituency perceived teachers from other fee schools as part of their in-group. Teachers from no-fee schools were perceived as part of their out-group. Similarly, participants from the no-fee school constituency perceived teachers from other no-fee schools as part of their in-group. Teachers from fee schools were perceived as part of their out-group.

3.5.4.11. *Perceived Organisational Justice*

Perceived organisational justice is an existing theoretical construct that was not included in the initial coding scheme. By extrapolating from Bronfenbrenner's (1977) ecological systems theory, the researcher decided to conceptualise perceived organisational justice as a general contextual resource among public school teachers in the Western Cape Province (Klusmann et al., 2008). Even though this resource may fluctuate from time to time (e.g. with the appointment of a new district officer), she suggests that perceived organisational justice remains relatively stable over time. For this reason, it will be operationalised as a structural contextual resource (Ten Brummelhuis & Bakker, 2012).

Based on the information gathered during the initial interviews and a review of the extant literature, the researcher defined perceived organisational justice in accordance with Colquitt, Conlon, Wesson, Porter and Ng (2001). Colquitt and his colleagues defined perceived organisational justice as the perceived fairness of employees' perceived workload in relation to the allocation of outcomes (e.g. recognition, remuneration or resources) (i.e. distributive justice); the formal processes and procedures that are used to determine decisions regarding the allocation of outcomes (i.e. procedural justice); the reasons given to justify the implementation of formal processes and procedures and the allocation of outcomes (i.e. informational justice); and the treatment that employees receive (e.g. dignity or respect) (i.e. interpersonal justice).

The researcher referred to perceived organisational support in Chapter 2, as opposed to perceived organisational justice. Rhoades and Eisenberger (2002) remarked that perceived organisational support is only influenced by discretionary actions. Research has demonstrated that the above-mentioned dimensions of perceived organisational justice signify discretionary actions that influence perceived organisational support. To take a case in point, a cross-sectional study conducted by Loi, Hang-Yue and Foley (2006) among 514 practising solicitors in Hong Kong demonstrated that procedural justice and distributive justice contributed to employees' perception of organisational support. Loi and his colleagues also reported that perceived organisational support mediated the relationship between procedural justice and distributive justice, and organisational commitment and intention to leave respectively. Comparable results were reported by Moorman, Blakely and Niehoff (1998) among 157 civilian subordinates and their supervisors from a military hospital in the United States of America. Moorman and his colleagues found that perceived organisational support mediated the relationship between procedural justice and organisational citizenship behaviour. These

results imply that perceived organisational justice is an antecedent of perceived organisational support.

Notably, as opposed to the perceived organisational support that teachers receive from their school, which was discussed in Chapter 2, this affinity grouping refers to the perceived organisational justice of larger governing bodies (i.e. Western Cape Department of Education). It does not refer to perceived organisational justice within a particular school. The researcher concluded that the latter was, to some extent, subsumed under school climate, specifically collegial leadership.

Participants described their perception of the perceived organisational justice of larger governing bodies during the initial interviews. Table 3.12 presents examples of the ideas and concepts that relate to perceived organisational justice.

Table 3.12

Examples of ideas and concepts that relate to perceived organisational justice

Fee schools	No-fee schools
Distributive justice <ul style="list-style-type: none"> • (Not recorded). 	Distributive justice <ul style="list-style-type: none"> • Ondersteuning van kollegas, prinsipaal, en WKOD amptenare (<i>Support from colleagues, principals, and WCED officials</i>).
Informational justice <ul style="list-style-type: none"> • Vakinhoude - besig om weg te beweeg van die basiese (<i>Subject content- busy moving away from the basics</i>). • WKOD rompslomp (<i>WCDE's hassels</i>). 	Informational justice <ul style="list-style-type: none"> • Pass rate.

Even though Table 3.12 shows that participants from both constituencies did not list ideas and concepts that relate to each of the above-mentioned dimensions of perceived organisational justice on index cards, they alluded to them during the initial interviews.

Participants from both constituencies directed attention to challenges associated with the perceived organisational justice of larger governing bodies. “We were left in the dark. We were not given a solution. The only thing is many no’s. No-no-no. Don’t-don’t-don’t. As a teacher you mustn’t do this, you mustn’t do that. We are not supported. Policies need to change.” “You are told not to do this and this and that. You are told to find other measures... Find other measures. We (refers to larger governing bodies) suggest you can detain them (refers to students), but before you detain them make sure you let their parents know this will happen on this date... I feel in South Africa, more especially with the education system, a problem is

always solved by creating a new problem.” “If you address the Department (refers to the Western Cape Department of Education) you see the red tape. It takes long before you hear anything.”

Some participants explained that the outcomes public school teachers receive from larger governing bodies do not reflect the effort that they are required to invest in their work (i.e. distributive justice). For example, participants from both constituencies raised complaints about their remuneration. “Financially teachers are not well liberated. You will even hear teachers say to students do not study for teachers.” “Die onderwysers pay min. So, wat gebeur nou, baie onderwysers voel dis nie die moeite werd om soveel effort in te sit nie, want jy word nie betaal daarvoor nie. (*The teachers’ salaries are small. So, what happens is, many teachers feel it is not worth investing so much effort, because you do not get paid for it.*)” “You can’t make ends meet. Ek voel net ek kan nie so aangaan nie. (*You can not make ends meet. I just feel I can not go on like this.*)”

Other participants alluded to challenges associated with the formal processes and procedures that are used to determine decisions regarding the allocation of outcomes (i.e. procedural justice). As an illustration, participants mentioned that the Western Cape Department of Education does not involve teachers in decision-making processes regarding curriculum changes. “I think that the policymakers do not check if a particular system is suitable for all of the schools or is it suitable for some schools. They don’t check. They just implement.” “Die goed op papier, dit lyk smart man, maar hulle is nie fisies in klas om te sien hoe dit geïmplementeer word nie. (*The things on paper, it seems smart, but they are not physically in class to see how they are implemented.*)” “Dit moet gebeur en daai moet gebeur... Ons het mos nie insae nie. Ek dink daar moet ’n platform wees om insae te lewer. (*This must happen and that must happen... We don’t have any input. I think there must be a platform to give inputs.*)”

Even though participants from the fee school constituency also highlighted challenges associated with the perceived organisational justice of larger governing bodies, its negative consequences were more noticeable among participants from no-fee schools. A case in point is the “pass rule”. According to the *National Education Policy (Act No. 27 of 1996)* students are not allowed to fail more than once in each phase of the 12-year education term¹⁸ (Republic

¹⁸ The 12-year education term consists of four phases, namely foundation phase (i.e. Grades 1 to 3), intermediate phase (i.e. Grades 4 to 6), senior phase (i.e. Grades 7 to 9) and further education and training phase (i.e. Grades 10 to 12).

of South Africa, 1996b). While the pass rule helps to ensure that students pass Grade 12, a moment's thought helps one realise that it negatively affects the quality of teaching and learning processes. Students progress to the next phase without having mastered the learning outcomes associated with the previous phase. The majority of participants from no-fee schools raised complaints about the pass rule and its negative consequences. "Ek is absoluut teen dit. Soos ek sê, daai kind gaan nie kan cope met die werkslading in Graad 12 nie. Ons sit met kinders wat nie kan cope nie. (*I am absolutely against it. Like I say, that child will not be able to cope with the workload in Grade 12. We sit with children who can not cope.*)" "We must, by all means, see that the students pass the grade irrespective of whether that they have completed the previous grade. Personally, I believe that if a child did not make the grade keep the child in the grade."

3.6. Summary

The researcher decided to adopt the mixed-methods approach in the study, specifically the mixed-methods exploratory sequential design. Correspondingly, she conducted the qualitative phase (i.e. Parts 1 and 2), before proceeding to the quantitative phase (i.e. Part 3). This approach enabled her to gain an in-depth understanding of the engagement phenomenon among public school teachers in the Western Cape Province, and to verify exploratory results concerning between-person variance in employee engagement and make generalisations to the broader population of public school teachers in the Western Cape Province. Notably, the qualitative phase was given a higher priority in the study.

A variation of the conventional IQA methodology was conducted for the purpose of the qualitative phase to determine how public school teachers in the Western Cape Province structure mental models of contextual, organisational, job and individual antecedents of between-person variance in employee engagement. In Chapter 3, Part 1 of the qualitative phase was discussed. This part of the qualitative phase was intended to identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. axial coding).

Due to unforeseen challenges associated with the arranged focus group sessions (e.g. time constraints in teachers' schedules), initial interviews were conducted with 37 teachers from fee schools ($n = 20$) and no-fee schools ($n = 17$). The purposive sampling design was used to purposefully select participants according to the criteria of "distance and power" (Northcutt &

McCoy, 2004, p. 69), who were able to provide an insider perspective on matters that are of central importance to the objectives of the qualitative phase.

Based on information gathered during the initial interviews and a further review of the extant literature, eleven composite affinities were identified. The affinities that were identified are employee engagement, teaching motivation, personal characteristics, coping strategies, perceived workload, school climate, student-teacher relationships and interactions, school facilities and teaching resources, parental attitudes, social context of the neighbourhood and perceived organisational justice. These affinities signify antecedents of variance in employee engagement among public school teachers in the Western Cape Province.

In Chapter 4, Part 2 of the qualitative phase will be discussed. This part of the qualitative phase was intended to explore the relational dynamics that exist among the above-mentioned antecedents of variance in employee engagement among public school teachers in the Western Cape Province. In accordance with Chapter 3, the researcher will present each successive procedural step that was taken to explore the relational dynamics that exist among the identified affinities in accordance with the IQA methodology and its results.

CHAPTER 4: EMERGING RESULTS OF PART 2 OF THE QUALITATIVE PHASE: RELATIONAL DYNAMICS AMONG AFFINITIES

4.1. Introduction

In Chapter 4, Part 2 of the qualitative phase will be discussed. As mentioned, the researcher deviated from the conventional style of reporting the research methodology and results. In consideration of the unique nature of the IQA methodology, she will present each successive procedural step that was taken to explore the relational dynamics that exist among the identified affinities in accordance with the IQA methodology and its results.

4.2. Individual Reality: Relational Dynamics among Affinities (Part 2)

Once the initial interviews (i.e. Part 1) were completed, participants were invited to engage in one follow-up interview (i.e. Part 2). Even though this part of the IQA research protocol can be done in dyads or triads, due to time constraints associated with the teachers' schedules, the researcher decided to invite participants to complete the Affinity Relationship Table (ART)¹⁹ individually during the follow-up interviews.

4.2.1. Research objective

Part 2 of the qualitative phase was intended to explore the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province. To put it differently, it was intended to explore the relational dynamics that exist among the identified affinities by “ascertaining the perceived cause-and-effect relationships among all the affinities in a system” (Northcutt & McCoy, 2004, p. 149). This part of the IQA research protocol is known as theoretical coding.

¹⁹ An ART is used to establish the nature of the perceived causal relationships among all the combinations of affinities. In other words, it is used to record participants' experience of a particular phenomenon (Northcutt & McCoy, 2004).

4.2.2. Demographic and employment information of constituencies

The realised sample comprised of twenty-eight teachers from fee schools ($n = 14$ (70 percent)) and no-fee schools ($n = 14$ (82 percent)) that participated in follow-up interviews.

Table 4.1 depicts the demographic and employment information of each constituency in Part 2.

Table 4.1
Frequency distribution: Demographic and employment information (Part 2)

Description	Fee schools		No-fee schools	
	Female	Male	Female	Male
Race				
African	0	0	1	3
Coloured	2	0	3	6
White	11	1	1	0
Other	0	0	0	0
Tenure	Number of participants		Number of participants	
≤ 5 years	4		2	
6 - 15 years	6		4	
16 - 25 years	0		7	
≥ 26 years	4		1	
Job title	Number of participants		Number of participants	
Class teacher	12		12	
Head of department	2		2	
Other positions	0		0	
Highest level of educational attainment	Number of participants		Number of participants	
Bachelor's degree in education	3		5	
Postgraduate diploma in education	5		7	
Honours degree	4		1	
Master's degree	2		0	
Other qualifications	0		1	

Table 4.1 shows that the composition of the fee school constituency in terms of race and gender distribution remained similar in Part 2. The majority of the fee school constituency comprised of white participants ($n = 12$ (86 percent)), specifically white females ($n = 11$ (79 percent)). The composition of the no-fee school constituency in terms of race and gender distribution also remained similar in Part 2. However, fewer African females participated in follow-up interviews. The majority of the no-fee school constituency comprised of African ($n = 4$ (29 percent)) and coloured ($n = 9$ (64 percent)) participants, specifically African males ($n = 3$ (21 percent)) and coloured males ($n = 6$ (43 percent)).

Table 4.1 also indicates that the composition of the fee school constituency in terms of tenure distribution remained similar in Part 2. The tenure of participants from the fee school constituency was either equal to or less than five years ($n = 4$ (29 percent)), between six and 15 years ($n = 6$ (42 percent)) or equal to or more than 26 years ($n = 4$ (29 percent)). None of the participants' tenure was between 16 and 25 years. The composition of the no-fee school constituency in terms of tenure distribution also remained similar in Part 2, with the exception of the tenure of one participant that increased from between 16 and 25 years to equal to or more than 26 years²⁰. The tenure of participants from the no-fee school constituency was equal to or less than five years ($n = 2$ (14 percent)), between six and 15 years ($n = 4$ (29 percent)), between 16 and 25 years ($n = 7$ (50 percent)) or equal to or more than 26 years ($n = 1$ (7 percent)).

Table 4.1 shows that the composition of the fee school constituency in terms of job title distribution remained similar in Part 2, with the exception of one participant who decided not to participate in a follow-up interview. This participant was appointed as a deputy principal. The majority of participants from the fee school constituency were appointed as class teachers ($n = 12$ (86 percent)). The remaining participants were appointed as heads of departments ($n = 2$ (14 percent)). The composition of the no-fee school constituency in terms of job title distribution also remained similar in Part 2. The majority of participants from the no-fee school constituency were appointed as class teachers ($n = 12$ (86 percent)). The remaining participants were appointed as heads of departments ($n = 2$ (14 percent)).

Table 4.1 also indicates that the composition of the fee school constituency in terms of the distribution of the highest level of educational attainment remained similar in Part 2. However, fewer participants with a postgraduate diploma in education decided to participate in follow-up interviews. The highest level of educational attainment of participants from the fee school constituency was either a bachelor's degree in education ($n = 3$ (21 percent)), postgraduate diploma in education ($n = 5$ (36 percent)), honours degree ($n = 4$ (29 percent)) or master's degree ($n = 2$ (14 percent)). The composition of the no-fee school constituency in terms of the distribution of the highest level of educational attainment also remained similar in Part 2, with the exception of one participant who decided not to participate in a follow-up interview. The highest level of educational attainment of this participant was a master's degree. The highest level of educational attainment of participants from the no-fee school constituency was either

²⁰ The increased tenure of this participant was attributed to the time interval between Parts 1 and 2 of the qualitative phase.

a bachelor's degree in education ($n = 5$ (36 percent)), postgraduate diploma in education ($n = 7$ (50 percent)) or honours degree ($n = 1$ (7 percent)). The highest level of educational attainment of one participant was a doctorate ($n = 1$ (7 percent)).

Participants from both constituencies taught diverse subjects to students from all grades (i.e. Grades 8 to 12).

4.2.3. Follow-up interview protocol: Data collection instrument and analysis

During the follow-up interviews, participants were invited to complete an ART that was developed specifically for the purpose of Part 2 of the qualitative phase to explore the relational dynamics that exist among the identified affinities.

The content of the ART was determined based on information gathered during Part 1 of the qualitative phase. In addition, the researcher referred to guidelines given by Northcutt and McCoy (2004) and the ARTs of studies that also used the IQA methodology (e.g. Burton, 2015; Tabane, 2010).

Once the researcher was satisfied with the affinity groupings (i.e. axial coding), she generated a comprehensive description for each affinity (Addendum C). These descriptions were informed by information gathered during the initial interviews and a further review of the extant literature. The researcher took care to ensure that descriptions were easily understandable in order to facilitate comprehension among participants. Jargon was avoided.

In addition to generating a comprehensive description for each affinity, the researcher created an ART to record public school teachers in the Western Cape Province's socially constructed view of the engagement phenomenon as communicated during the follow-up interviews. As opposed to the bipolar repertory grid technique (Fransella, Bell & Bannister, 2004), each statement in the ART offered an option that reflected the existence and direction of the perceived causal relationship between two affinities (e.g. $A \rightarrow B$ or $A \leftarrow B$) or the absence thereof ($A < > B$)²¹. The statements did not require participants to judge the strength of the perceived causal relationships - only their existence and direction.

²¹ Participants were able to indicate the absence of a causal relationship ($A < > B$) between two affinities. This response suggested that participants have not experienced the affinities of interest. For this reason, they were unable to make a judgement about its causality. A high frequency of this response would have indicated the ineffective selection of participants or affinities (Northcutt & McCoy, 2004).

At the commencement of follow-up interviews, the researcher gave participants a comprehensive description of each affinity, as well as the ART. The researcher proceeded to introduce participants to each affinity that was identified. Once participants had read and understood each description, they were asked to complete the ART by reflecting on the perceived causal relationships that exist among all the affinities. Participants were encouraged to provide a verbal hypothesis “that reflects their experiences and that supports the cause-and-effect relationship” (Northcutt & McCoy, 2004, p. 152) between each affinity pair in the form of a short if-then statement. Participants were required to respond to each statement in the ART.

Once participants responded to each statement in the ART, the researcher asked participants to reflect on the stability of the perceived causal relationships that exist among affinities. She asked participants to reflect on the stability of the direction of the relationship between each affinity pair (indicated on the ART), as well as its intensity. This provided valuable insight about within-person variance in employee engagement among public school teachers in the Western Cape Province.

The researcher used the information gathered by the ART to create a SID, which summarised the results of Part 2 of the qualitative phase. The ART and the resultant SID enabled her to gain an in-depth understanding of the engagement phenomenon among public school teachers in the Western Cape Province.

4.2.4. Composite affinity relationship diagram

To analyse information gathered by the ART, the researcher calculated the number of votes that each affinity pair received on a spreadsheet in Microsoft Excel (i.e. composite affinity relationship frequency table) and sorted it in descending order.

Once the distribution of votes among all the affinity pairs was determined, the researcher performed Pareto²² and power analyses on a spreadsheet in Microsoft Excel (i.e. composite Pareto and power analyses table). This enabled her to determine the optimal number of affinity

²² Pareto principle is a statistical method that is typically used in the economic context. Northcutt and McCoy (2004, p. 156) explained that the Pareto principle suggests that, “a minority of the relationships in any system will account for a majority of the variation in the system. IQA uses the Pareto rule of thumb operationally to achieve consensus and analytically to create a statistical group composite”.

pair relationships that should be included in the composite Inter-Relationship Diagram (IRD)²³ and the resultant SID to explain the maximum amount of variance in the system. It is important to note that in this instance the meaning of variance differs from its traditional conceptualisation. Variance refers to the total number of votes that represent the affinity pair relationships, which offer an accurate reflection of the variety of perceptions of participants - not the dispersion of data points (Northcutt & McCoy, 2004).

The composite Pareto and power analyses table showed that power reaches a maximum (21.39) at 55 affinity pair relationships, which accounts for 50 percent of the variance in the system. The first 55 affinity pair relationships were, therefore, included in the composite IRD.

Once the researcher determined the optimal number of affinity pair relationships that should be included in the composite IRD and the resultant SID, she conducted conflict analysis on a spreadsheet in Microsoft Excel (i.e. composite cumulative frequency conflict identification table). This enabled her to identify any affinity pair relationships with votes in opposing directions. These affinity pair relationships, also known as mischievous typologies, point to dynamic feedback loops that involve unacknowledged mediator variables. Affinity pair relationships with a higher number of votes are used to construct a SID (Northcutt & McCoy, 2004).

The composite cumulative frequency conflict identification table showed that none of the affinity pair relationships had votes in opposing directions. All the affinity pair relationships were, therefore, included in the composite ART and used to construct the composite IRD.

4.2.5. Composite interrelationship diagram

To develop the composite IRD, presented in Table 4.2, the researcher mapped each affinity pair relationship included in the composite ART. Arrows were used to indicate the direction of the perceived causal relationships. In other words, the direction of arrows indicated which affinity was influenced by which affinity. Upward facing arrows indicated that the row influenced the column, while left facing arrows indicated that the column influenced the row.

²³ An IRD is constructed during a procedural step whereby the affinities are investigated to develop propositions concerning the perceived causal relationships. Arrows displayed in an IRD indicate the nature of the relationship between two affinities ($A \rightarrow B$, $A \leftarrow B$ or $A <> B$) (Northcutt & McCoy, 2004).

Since affinities cannot influence themselves, the researcher used black blocks as placeholders in the composite IRD (Northcutt & McCoy, 2004).

Once the composite IRD was developed, the researcher calculated delta values to determine the position of affinities within the system. Delta values (Δ) of affinities were calculated by subtracting the number of left facing arrows from the number of upward facing arrows (Northcutt & McCoy, 2004).

After delta values were calculated, the researcher sorted the affinities in descending order in terms of delta frequency. This enabled her to identify drivers or causes (i.e. primary and secondary), pivots and outcomes or effects (i.e. primary and secondary) in the system. Positive delta values signified drivers, whereas negative delta values signified outcomes. Pivots represented affinities that have an equal number of left facing arrows and upward facing arrows. These constructs equally influenced and were influenced by other affinities (Northcutt & McCoy, 2004).

Two rules were used to distinguish between primary and secondary drivers. Firstly, primary drivers were identified by the highest number of upward facing arrows, irrespective of the number of left facing arrows. Secondly, when drivers did not have the highest number of upward facing arrows, but no left facing arrows, they were also considered primary drivers. Although other affinities did not directly influence these affinities, they influenced other affinities. The same rules were used to identify primary outcomes, but the researcher considered the highest number of left facing arrows. The remaining drivers and outcomes were considered to be secondary (Northcutt & McCoy, 2004).

Table 4.2
Composite inter-relationship diagram in descending order

Affinities	POJ	SCN	PC	TM	SFTR	CS	EE	PA	PW	SC	STRI	Outs	Ins	Δ	Position in the SID
POJ	█	←	↑	↑	↑	↑	↑	↑	↑	↑	↑	9	1	8	Primary driver
SCN	↑	█	←	↑	↑	↑	↑	↑	↑	↑	↑	9	1	8	Primary driver
PC	←	↑	█	↑	↑	↑	↑	↑	↑	↑	↑	9	1	8	Primary driver
TM	←	←	←	█	↑	↑	↑	↑	↑	↑	↑	7	3	4	Driver
SFTR	←	←	←	←	█	↑	↑	←	↑	↑	↑	5	5	0	Pivot
CS	←	←	←	←	←	█	↑	↑	↑	↑	↑	5	5	0	Pivot
EE	←	←	←	←	←	←	█	↑	←	↑	↑	3	7	-4	Outcome
PA	←	←	←	←	↑	←	←	█	↑	←	↑	3	7	-4	Outcome
PW	←	←	←	←	←	←	↑	←	█	↑	↑	3	7	-4	Outcome
SC	←	←	←	←	←	←	←	↑	←	█	←	1	9	-8	Primary outcome
STRI	←	←	←	←	←	←	←	←	←	↑	█	1	9	-8	Primary outcome

Note: POJ, Perceived organisational justice; SCN, Social context of the neighbourhood; PC, Personal characteristics; TM, Teaching motivation; SFTR, School facilities and teaching resources; CS, Coping strategies; EE, Employee engagement; PA, Parental attitudes; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions.

Table 4.2 indicates that three primary drivers (i.e. perceived organisational justice, social context of the neighbourhood and personal characteristics), one driver (i.e. teaching motivation), two pivots (i.e. school facilities and teaching resources and coping strategies), three outcomes (i.e. employee engagement, parental attitudes and perceived workload) and two primary outcomes (i.e. school climate and student-teacher relationships and interactions) were identified.

The researcher also developed an IRD for each constituency based on information gathered from fee schools (Addendum D) and no-fee schools (Addendum E).

4.2.6. Composite systems influence diagram

The researcher created a SID for each affinity to illustrate the perceived causal relationships among affinities that may be responsible for the dynamics of the system after drivers, pivots and outcomes were identified in the composite IRD. To ensure that these perceived causal relationships were communicated in an easily understandable language, she supplemented it with participants' interpretation of the affinity pair relationships.

The researcher used the Inspiron software package to create the above-mentioned SIDs. Affinities were arranged in accordance with the above-mentioned SID assignments (i.e. drivers, pivots and outcomes). She started by positioning primary drivers on the left and primary outcomes on the right. Thereafter, secondary outcomes and drivers were positioned between primary drivers and outcomes with drivers placed on the left and outcomes on the right. Pivots were positioned at the centre of the system. Finally, the researcher drew arrows to reflect the direction of each affinity pair relationship in the composite IRD (Northcutt & McCoy, 2004).

4.2.7. Composite cluttered systems influence diagram

Next, the researcher created the composite SID. The first version of the composite SID is known as the cluttered SID (Northcutt & McCoy, 2004). This version of the SID was saturated with all the affinity pair relationships included in the composite IRD. Even though it offered an illustration of the entire system of influences and outcomes and was rich in its descriptive capability, the cluttered SID could not be used as an interpretive device. It was too complex to be meaningful.

4.2.8. Composite uncluttered systems influence diagram

In consideration of the fact that comprehensiveness and parsimony were objectives of the SID, the researcher removed all the redundant pathways to construct the composite uncluttered SID. Redundant pathways were paths in the case of which, even when they were removed, intermediary affinities would still achieve the pathways from the drivers to the outcomes (Northcutt & McCoy, 2004). By removing all the redundant pathways, she was able to simplify the SID and optimise its explanatory power.

To ensure that the composite uncluttered SID was communicated in a logical manner, it was supplemented with a composite uncluttered SID process flow.

4.2.9. A tour through the system

The composite uncluttered SID, which offers an explanation of public school teachers in the Western Cape Province's experiences with the engagement phenomenon, can be described as a journey. The journey begins with the social context of the neighbourhood, perceived organisational justice and personal characteristics (i.e. primary drivers) and ends with school climate and student-teacher relationships and interactions (i.e. primary outcomes). The journey can be traced as a path where each affinity influences the next affinity. To ensure that this journey was communicated clearly, it was supplemented with a theoretical summary of the composite uncluttered SID, presented in Figure 4.1. The researcher also developed a theoretical summary of the uncluttered SID for each constituency based on information gathered from fee schools (Addendum F) and no-fee schools (Addendum G).

The researcher proposed that the theoretical summary of the composite uncluttered SID could be divided into three parts. The first part of the theoretical summary consists of the social context of the neighbourhood, perceived organisational justice and personal characteristics. It suggests that teachers' personal characteristics influence their perception of the social context of the neighbourhood. Teachers, who have high emotional intelligence, positive psychological capital and an internal locus of control (i.e. personal characteristics), will be more likely to address challenges associated with the social context of the neighbourhood. The social context of the neighbourhood, however, influences the perceived organisational justice of larger governing bodies. When the basic needs of students are met, and their household composition promotes student progression and achievement, teachers will be more likely to perceive larger governing bodies as fair and transparent. These perceptions, in turn, influence teachers' personal characteristics. Teachers, who perceive larger governing bodies as fair and transparent, will be more likely to exhibit high emotional intelligence, positive psychological capital and an internal locus of control (i.e. personal characteristics)²⁴.

²⁴ Although the direction of the perceived causal relationship between perceived organisational justice and personal characteristics may appear implausible at first glance, the researcher interpreted it as participants' belief that the organisational environment (i.e. perceived organisational justice) influences teachers' well-being (i.e. personal characteristics).

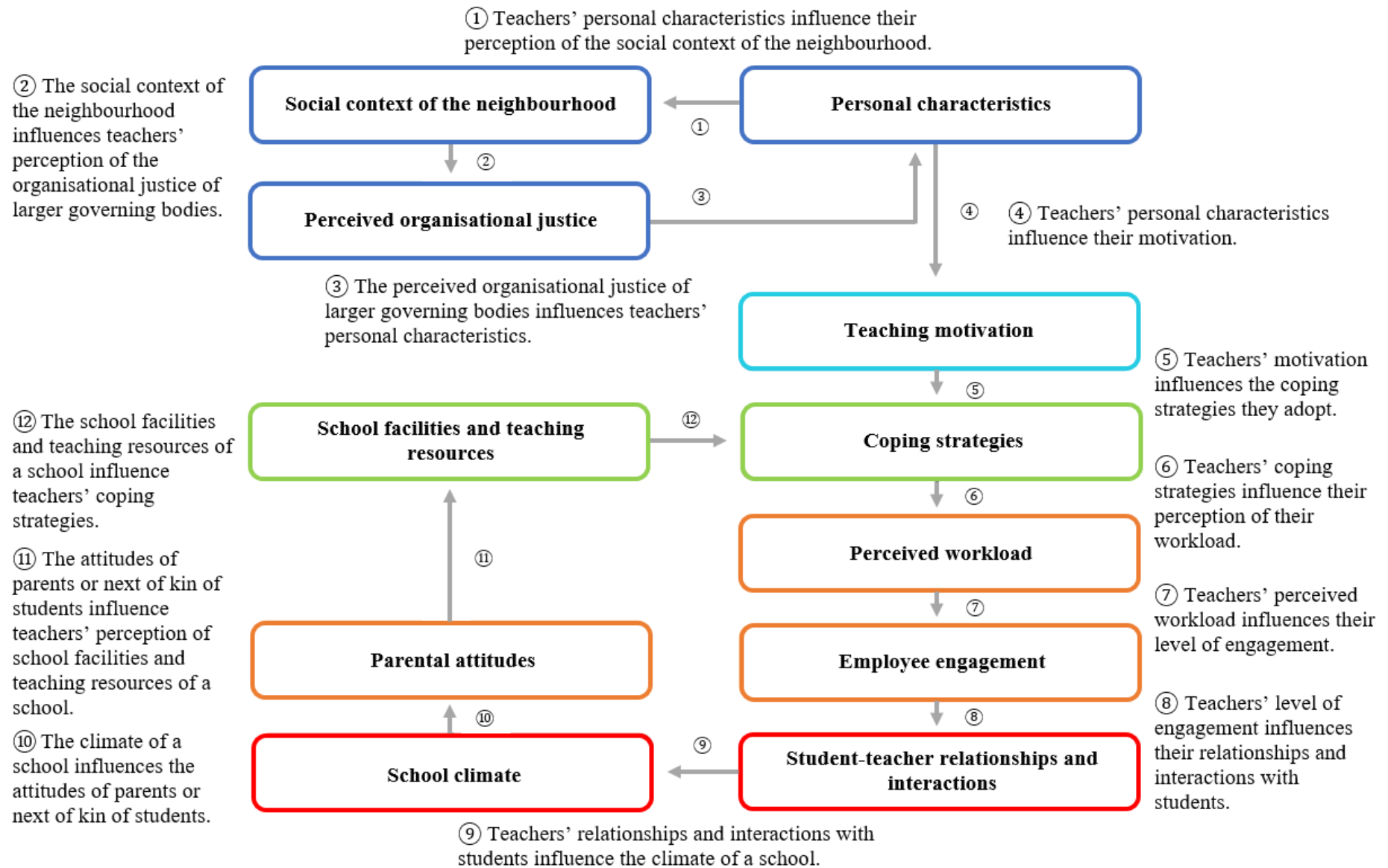


Figure 4.1 Theoretical summary of the composite uncluttered systems influence diagram

The second part of the theoretical summary is centred on teaching motivation. This part of the theoretical summary suggests that teachers' personal characteristics influence their motivation to pursue a career in teaching. Teachers, who have high emotional intelligence, positive psychological capital and an internal locus of control (i.e. personal characteristics), will be more likely to feel called to pursue a career in teaching. Teachers' motivation to pursue a career in teaching, in turn, influences their subjective selection and use of coping strategies. Teachers, who feel called to teach, will be more likely to adopt engagement coping (i.e. active coping, turning to religion and seeking emotional support).

The third part of the theoretical summary consists of coping strategies, perceived workload, employee engagement, student-teacher relationships and interactions, school climate, parental attitudes and school facilities and teaching resources. It suggests that teachers' coping strategies influence their perception of their workload. Teachers, who adopt engagement coping (i.e. active coping, turning to religion and seeking emotional support), will be more likely to feel that their work tasks are manageable in terms of their number and difficulty. This perception, in turn, influences teachers' level of engagement. Teachers, who feel that their work tasks are manageable in terms of their number and difficulty, will be more likely to exhibit vigour, dedication and absorption (i.e. employee engagement). Teachers' level of engagement influences their relationships and interactions with students. Teachers, who exhibit vigour, dedication and absorption (i.e. employee engagement), will be more likely to experience warmth and open communication with students. Teachers' relationships and interactions with students, in turn, influence the climate of a school. When teachers experience warmth and open communication with students, the teachers of a school will be more likely to be competent and committed to students. Along the same lines, its principal will be more likely to be open to the inputs of others and set clear expectations. The climate of a school influences the attitudes of parents and next of kin of students. When the teachers of a school are competent and committed to students and its principal is open to the inputs of others and sets clear expectations, parents or next of kin of students will be more likely to instil the value of education, mobilise resources in order to support student progression and achievement and wilfully participate in and support school activities. The attitudes of parents and next of kin of students, in turn, influence the perception of school facilities and teaching resources. When parents or next of kin of students instil the value of education, mobilise resources in order to support student progression and achievement and wilfully participate in and support school activities, it is more likely that the physical structure of a school and its teaching resources will be experienced as conducive to

teaching and learning processes. The school facilities and teaching resources, in turn, influence teachers' subjective selection and use of coping strategies. When the physical structure of a school and its teaching resources are conducive to teaching and learning processes, teachers will be more likely to adopt engagement coping (i.e. active coping, turning to religion and seeking emotional support).

4.2.10. Feedback loops, zooming and naming

Feedback loops consist of “at least three affinities, each influencing the other directly or indirectly” (Northcutt & McCoy, 2004, p. 355). Feedback loops can be given substitute names. This procedural step of the IQA research protocol is known as zooming. Substitute names are created by reviewing the comprehensive descriptions of the affinities that are subsumed under feedback loops (Addendum C), as well as their placement in the overall system. Zooming out can continue as long as there are feedback loops that have an underlying semantic dimension.

Inspection of the composite uncluttered SID (Figure 4.1) revealed two feedback loops. The first feedback loop corresponded with the first part of the theoretical summary, which comprised of the social context of the neighbourhood, perceived organisational justice and personal characteristics. This feedback loop subsumed the interaction between teachers themselves (i.e. personal characteristics) and social (i.e. social context of the neighbourhood), as well as institutional (i.e. perceived organisational justice), influences. The second feedback loop corresponded with the third part of the theoretical summary, which comprised of coping strategies, perceived workload, employee engagement, student-teacher relationships and interactions, school climate, parental attitudes and school facilities and teaching resources. This feedback loop also subsumed the interaction between teachers themselves (i.e. coping strategies and employee engagement) and institutional (i.e. perceived workload, student-teacher relationships and interactions, school climate, parental attitudes and school facilities and teaching resources) influences. However, these institutional influences were related to the internal functioning of schools.

The researcher defined the above-mentioned feedback loops as socio-institutional influences and intra-institutional influences. She used these super affinities to replace the feedback loops, as shown in Figure 4.2.

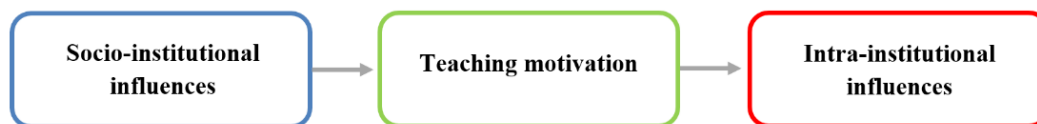


Figure 4.2. Zoomed out composite uncluttered systems influence diagram

Figure 4.2 is identical to the first composite uncluttered SID (Figure 4.1), except that the above-mentioned feedback loops were collapsed or zoomed out into more general terms (Northcutt & McCoy, 2004).

In consideration of the feedback loops that were identified during zooming, the researcher argued that a narrow approach to challenges associated with employee engagement among public school teachers in the Western Cape Province would not suffice. The qualitative results showed that it is imperative to adopt a holistic approach. Human resource practices and interventions that are developed and implemented to foster employee engagement among public school teachers in the Western Cape Province should account for intra-institutional influences, as well as socio-intuitional influences.

4.3. Application of the Ecological Systems Theory

The researcher proposed that the affinities that were identified during the qualitative phase include latent variables that emanate from teachers themselves and those that emanate from the environment that surrounds them. This notion corresponds with Bronfenbrenner's (1977) ecological systems theory. The ecological systems theory suggests that human development is best understood by mapping the interaction between individuals and the environment that surrounds them. For this reason, it was used as a conceptual framework to frame teacher-, school-, community- and societal-level determinants that explain variance in the engagement phenomenon among public school teachers in the Western Cape Province (Figure 4.3).

As mentioned in Chapter 2, the ecological systems theory refers to five nested and interconnected structures, ranging from the microsystem to the macrosystem, as well as the chronosystem (Bronfenbrenner, 1977). The researcher referred to each of these structures, apart from the mesosystem, to map the interactions between teachers and the environment that surrounds them.

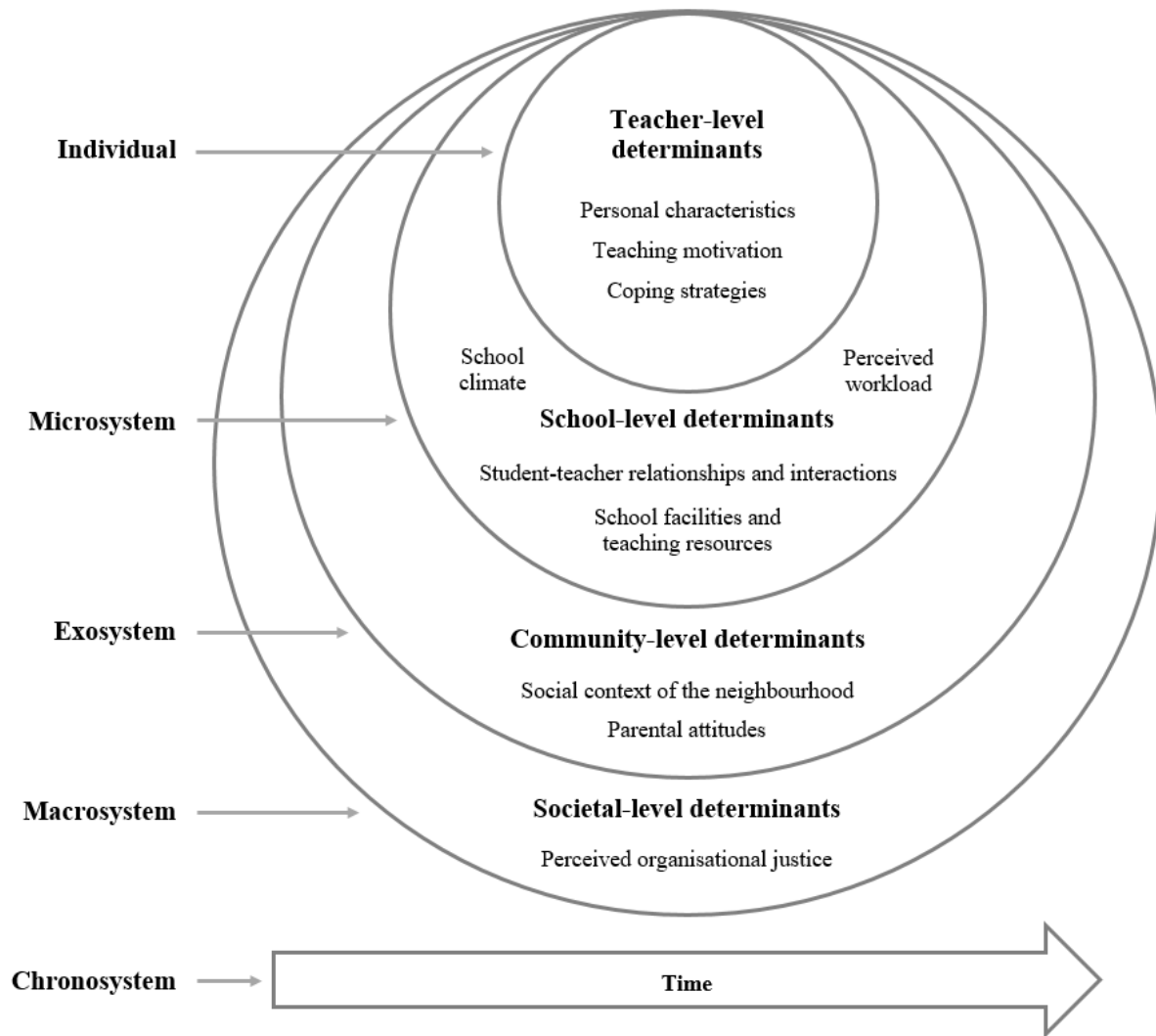


Figure 4.3 Ecological systems theory application. Adapted from "Children at risk for special health care needs", by P. W. Newacheck, J. P. Rising and S. E. Kim, 2006, *Pediatrics*, 118(1), p. 338.

Bronfenbrenner (1977) explained that the mesosystem consists of linkages and processes that occur between two or more settings. Both settings contain individuals. In other words, the mesosystem is made up of various microsystems. The researcher acknowledged that it would be useful to examine the linkages and processes that occur between two or more settings. As an example, to gain an in-depth understanding of the way within which the interaction between work conditions and processes (i.e. job demands and job resources) and family conditions and processes (i.e. family demands and family resources) influence employee engagement among public school teachers in the Western Cape Province.

Some participants referred to the interaction between work and family conditions and processes during the Parts 1 and 2. "It is too much... The marking. You haven't seen the box. It is full of papers. This weekend I did not go out with my kids. I just marked." "Die werkslading is heavy.

Jy moet 'n goeie time manager wees, maar ek dink dis ook makliker vir my omdat ek nie kinders het nie. Die werkslading is hectic en as jy nog 'n familie het... Ek het baie respek vir my kollegas wat 'n familie het. (*The workload is heavy. You have to be a good time manager, but I think it is also easier for me because I do not have children. The workload is hectic and if you also have family... I have a lot of respect for my colleagues who have a family.*)” “As jy regtig voluit vir skool gaan, skeep jy jou familie af. Daar is net nooit tyd in die kwartaal om niks te doen nie. Jy voel altyd skuldig oor iets wat jy nie gedoen het nie. (*If you really go all out for school, you neglect your family. There is just never time to do anything during the school term. You always feel guilty about something that you have not done.*)” The majority of participants, however, did not refer to microsystems, apart from their school, during the initial or follow-up interviews. For this reason, the researcher did not examine how demanding and resourceful aspects of one microsystem influences outcomes in another microsystem.

As mentioned in Chapter 2, Ten Brummelhuis and Bakker (2012) remarked that Bronfenbrenner's (1977) ecological systems theory could be used as a conceptual framework to explain how contextual demands and contextual resources emanate from the home environment. By drawing on the central tenets of the ecological systems theory (Bronfenbrenner, 1977) and COR theory (Hobfoll, 1989), Ten Brummelhuis and her colleague introduced the Work-Home Resources (W-HR) model to explain positive and negative work-home processes. The W-HR model suggests that personal resources (e.g. energy, mood or time) form pathways between demanding aspects of one microsystem to outcomes in another microsystem (e.g. home and work). Work-home conflict is, therefore, a process whereby demanding aspects in the work domain deplete employees' personal resources and, in turn, hamper their accomplishments in the family domain (vice versa).

The researcher acknowledged that some researchers have examined how demanding and resourceful aspects of one microsystem influences outcomes in another microsystem (e.g. Garrick et al., 2018), but suggested that more research is needed in this regard. She specifically recommended that future research should examine the pathways and processes that occur between two or more microsystems among public school teachers in the Western Cape Province.

4.3.1. Teacher-level determinants

The innermost structure of Figure 4.3 signifies individuals themselves. According to Bronfenbrenner (1977), individuals have personal attributes that invite, inhibit or prevent engagement and interaction with the environment that surrounds them. In line with this, the researcher proposed that it refers to the characteristics of teachers and represents teacher-level determinants of employee engagement.

Based on the qualitative results and a review of the extant literature, teacher-level determinants include teaching motivation, personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) and coping strategies. Within the parameters of the JD-R model, the researcher operationalised these determinants as personal resources (Xanthopoulou et al., 2007) and effective coping strategies (Tims et al., 2013) that reduce job stress and positively influence employee engagement among public school teachers in the Western Cape Province. As an illustration, teachers, who have positive psychological capital and high emotional intelligence, may be more likely to adopt engagement coping (i.e. active coping, turning to religion and seeking emotional support) to master, manage or tolerate the demands that they encounter (i.e. Propositions 5 and 7). “I think that (refers to coping strategies) is going to be determined by what kind of person you are. If you are resilient and you have emotional intelligence, you will strategise and go for it.” In turn, “Using coping strategies is effectively going to increase employee engagement. That is how I perceive it”.

The researcher acknowledged that the above-mentioned teacher-level determinants might also manifest as personal demands (Bakker & Demerouti, 2017) and ineffective coping strategies (Bakker & Costa, 2014) within the parameters of the JD-R model that exacerbate job stress and negatively influence employee engagement among public school teachers in the Western Cape Province. As an illustration, teachers, who have negative psychological capital and low emotional intelligence, may be more likely to adopt disengagement coping (i.e. avoidance coping) to master, manage or tolerate the demands that they encounter.

Notably, the researcher did not examine the role of personal demands or disengagement coping in the quantitative phase of the study. As mentioned in Chapter 1, in line with the positive psychology approach (Seligman & Csikszentmihalyi, 2000), specifically the salutogenic paradigm (Antonovsky, 1979), she examined the role of positive attributes and strengths (i.e. personal resources and engagement coping) that can be measured, developed and effectively

managed to foster employee engagement among public school teachers in the Western Cape Province. More specifically, the researcher examined whether teachers, who exhibit calling orientation (i.e. teaching motivation), positive psychological capital, high emotional intelligence and internal work locus of control (i.e. personal characteristics) and engagement coping (i.e. coping strategies) report higher levels of engagement compared to their counterparts.

4.3.2. School-level determinants

The second nested structure of Figure 4.3 denotes the microsystem. Bronfenbrenner (1977) explained that the microsystem refers to the pattern of activities, social roles and interpersonal relationships that individuals encounter in specific face-to-face settings. The researcher proposed that the microsystem refers to the pattern of activities, social roles and interpersonal relationships that teachers encounter in their school and represents school-level determinants of employee engagement.

Based on the qualitative results and a review of the extant literature, school-level determinants include school climate, perceived workload, student-teacher relationships and interactions and school facilities and teaching resources. In terms of Schaufeli and Taris' (2014) refined definition of job demands and job resources within the parameters of the JD-R model, these determinants signify job demands (i.e. perceived workload) and job resources (i.e. school climate, student-teacher relationships and interactions and school facilities and teaching resources). More specifically, perceived workload was operationalised as a hindering job demand (LePine et al., 2005), school facilities and teaching resources were operationalised as a structural job resource, and school climate and student-teacher relationships and interactions were operationalised as social job resources (Tims et al., 2012).

4.3.3. Community-level determinants

The third nested structure of Figure 4.3 signifies the exosystem. According to Bronfenbrenner (1977), the exosystem consists of linkages and processes that occur between two or more settings. Even though only one setting may contain individuals, Bronfenbrenner advocated that events that occur in other settings might influence conditions and processes in their immediate setting. The researcher proposed that the exosystem consists of linkages and processes that occur between teachers' school and the surrounding community and represents community-

level determinants of employee engagement. She anticipated that events that occur in the surrounding community influence the conditions and processes within schools.

Based on the qualitative results and a review of the extant literature, community-level determinants include the social context of the neighbourhood and parental attitudes. These determinants could not be classified within the parameters of the existing JD-R model (Demerouti et al., 2001). In consideration of this, the researcher proposed that the concepts of demands and resources should be broadened. This corresponds with comments that were made in Chapter 2 regarding the inclusion of contextual demands and contextual resources in the study. Most models and theories of job stress, including the JD-R model, differentiate between personal and job demands, as well as personal and job resources. However, in line with the qualitative results, the researcher contended that demands and resources might also emanate from external environments, such as the community surrounding a particular school. Along with personal and job demands, as well as personal and job resources, it is, therefore, important to acknowledge the existence of contextual demands and contextual resources within the parameters of the JD-R model.

As mentioned in Chapter 1, recent research has shown that context influences employee engagement and its antecedents (e.g. Jenkins & Delbridge, 2013; Rothmann, 2014). Along the same lines, researchers have shown that contextual factors influence the job stress and occupational health of teachers (e.g. Collie, Perry & Martin, 2017; Collie, Shapka & Perry, 2012). By extrapolating from these studies, the social context of the neighbourhood and parental attitudes were operationalised as contextual resources in the study.

4.3.4. Societal-level determinants

The fourth nested structure of Figure 4.3 denotes the macrosystem. Bronfenbrenner (1977) explained that the macrosystem refers to overarching patterns of microsystem, mesosystem and exosystem characteristics associated with particular cultures or subcultures (e.g. belief systems, bodies of knowledge and customs). It signifies the “social blueprint for a particular culture, subculture or other broader social context”, which influences conditions and processes in microsystems (Bronfenbrenner, 2005, p. 150). The researcher proposed that the macrosystem extends beyond the linkages and processes that occur between teachers’ school and the surrounding community. It consists of the socio-political framework that affects conditions and

processes in teachers' school and represents societal-level determinants of employee engagement.

Based on the qualitative results and a review of the extant literature, perceived organisational justice is a societal-level determinant. Along with community-level determinants, this determinant could not be classified within the parameters of the existing JD-R model (Demerouti et al., 2001). In accordance with the foregoing discussion, it was also operationalised as a contextual resource in the study.

4.3.5. Within-person and between-person variability

The fifth structure of Figure 4.3 signifies the chronosystem. The chronosystem extends beyond individuals themselves and the environment that surrounds them into the third dimension of time. Bronfenbrenner (1977) proposed that this structure refers to change or consistency that occurs in individuals, as well as the environment that surrounds them (i.e. microsystem, mesosystem, exosystem and macrosystem). In consideration of the chronosystem, the researcher explored the stability of the affinity pair relationships (i.e. direction and intensity) and employee engagement (i.e. within-person variance). Once participants responded to each statement in the ART, she asked participants to reflect on the stability of the direction of the relationship between each affinity pair (indicated on the ART), as well as its intensity. This provided valuable insight about within-person variance in employee engagement among public school teachers in the Western Cape Province.

Information gathered during the follow-up interviews suggested that change occurs in teachers themselves and the environment that surrounds them. The majority of participants explained that the direction of most affinity pair relationships remains relatively stable over time. “Ek dink dit (refers to the direction of affinity pair relationships) bly maar min of meer dieselfde. Ja, dit bly maar dieselfde. (*I think it (refers to the direction of affinity pair relationships) stays more or less the same. Yes, it stays the same.*)” “Ek dink die rigting van die verhoudings bly dieselfde. (*I think the direction of the relationships remains the same.*)” “Ek dink dit (refers to the direction of affinity pair relationships) verander soms. (*I think it (refers to the direction of affinity pair relationships) changes sometimes.*)”

Participants attributed changes in the direction of affinity pair relationships to significant changes that occur. “Daar moet definitief iets groot gebeur. (*Something significant must happen.*)” “Groot goed sal dit (refers to the direction of affinity pair relationships) laat

verander. (*Significant things will make it* (refers to the direction of affinity pair relationships) *change.*)” “In extreme gevalle gaan die rigting verander. (*In extreme cases the direction will change.*)” More specifically, participants attributed changes in the direction of affinity pair relationships to significant changes that occur within themselves or the environment that surrounds them. “Ek dink die konteks is die volle prentjie van wat aangaan. Dis nie ’n een-dimensionele kyk nie. Dis van alle kante af. Die konteks is die omgewing. Die konteks is eintlik alles. Ook, eintlik waar jy is in jou lewe, want jy sal nou met my praat en jy sal miskien met iemand anders praat en hulle konteks... Alhoewel ons in dieselfde fisiese omgewing is, is hulle konteks verskillend. Ja, daar is baie fyn draadjies en dinamika wat ’n mens moet in ag neem. (*I think the context creates the full picture of what is going on. It is not a one-dimensional perspective. It is from all directions. The context is the environment. The context is actually everything. Also, actually where you are in your life, because you will talk to me and you may talk to someone else and their context... Although we are in the same physical environment, their context is different. Yes, there are many details and dynamics that one has to take into account.*)” “Tensy daar ’n groot verandering in jouself gebeur, gaan die rigting dieselfde bly. (*Unless a significant change happens within yourself, the direction will remain the same.*)”

The majority of participants also explained that the intensity of the affinity pair relationships changes over time. “I think it (refers to the intensity of affinity pair relationships) fluctuates.” “Hy (refers to the intensity of affinity pair relationships) gaan dalk partykeer twee pyltjies wees en die ander keer net een pyltjie. (*He* (refers to the intensity of affinity pair relationships) *will maybe sometimes have two arrows and other times only one arrow.*)” “Ja-nee, definitief. Dit (refers to the intensity of affinity pair relationships) is heeltemal dinamies. Heeltyd. (*Yes, definitely. It* (refers to the intensity of affinity pair relationships) *is completely dynamic. Constantly.*)”

Participants attributed changes in the intensity of the affinity pair relationships to momentary fluctuations in school-level determinants. “Byvoorbeeld, by dié skool... Die klimaat van dié skool... Ewe skielik toe is... Die hoof was bietjie afwesig, toe neem die adjunkhoof oor en sy besluit sy gaan dinge bietjie reg ruk. Die oomblik toe sy dit doen, toe is ons almal... Toe is daar dissipline. Toe is daar dit... Toe is daar dit. Toe is dinge in plek wat nooit in plek is nie. (*For example, at this school... The climate of this school... Suddenly there was... The principal was absent, so the deputy principal took over and she decided she was going to fix things. The moment she did this, we were all... There was discipline. There was this... There was that.*

Things were in place that were not in place before.)” “Kom ons vat net na die eksamen... Ouers wat dalk glad nie met jou kontak gemaak het nie, maar nou is dit na die eksamen. Nou is hulle miskien baie ontsteld oor die uitslae, so nou sal hulle... Hulle kontak jou konstant (refers to parental attitudes)... Stuur elke dag vir jou ’n e-pos of so waar deur die res van die jaar het jy glad nie van hulle gehoor nie. *(Let us consider shortly after the exam... Parents that have maybe not contacted you at all, but now it is after the exam. Now they are very upset about the results, so they will... They will constantly contact you (refers to parental attitudes)... Send you an e-mail every day even though you have not heard from them during the rest of the year.)*”

As mentioned in Chapter 2, researchers have examined employee engagement from a variety of time perspectives, ranging from the trait perspective (i.e. between-person variance) to the state perspective (i.e. within-person variance) (Sonnetag et al., 2010). The trait perspective asks, “Why is a particular employee, in general, more engaged than another employee?” The state perspective, on the other hand, asks, “Why is a particular employee more engaged in his or her work at a specific point in time?” From a conceptual and theoretical point of view, the researcher argued that it was, therefore, necessary to supplement the trait perspective with the state perspective in order to gain an in-depth understanding of the engagement phenomenon among public school teachers in the Western Cape Province. For this reason, she asked participants to reflect on the stability of their level of engagement once they responded to each statement in the ART.

The majority of participants explained that they are not equally engaged in their work across all days (or weeks). “Dit (refers to employee engagement) gaan op en af. *(It (refers to employee engagement) goes up and down.)*” “It changes. Like last week, I had a down. My engagement was on zero percent, but on other times I am engaged, and I feel like I can make a difference and I want to make a difference at school.” “Yes. I think it is natural to have that (refers to employee engagement) fluctuate.” “Ja, every day. It (refers to employee engagement) fluctuates heavily. There are some days that you come to school and you ask yourself: What am I doing here? *(Yes, every day. It (refers to employee engagement) fluctuates heavily. There are some days that you come to school and you ask yourself: What am I doing here?)*” These responses suggest that there are days (or weeks) during which employees feel more vigorous, absorbed and dedicated compared to other days (or weeks). Research has shown support for this notion. As an illustration, a diary study conducted by Bakker and Bal (2010) among 54 teachers in the Netherlands tested a model of weekly employee engagement. Bakker and his

colleague demonstrated that a positive association exists between week-level job resources (i.e. autonomy, exchange with the supervisor and opportunities for development) and week-level employee engagement. Van Woerkom and her colleagues (2016) reported comparable results among 65 civil engineers from 43 heterogeneous organisations (e.g. building companies, engineering agencies and local governments) in the Netherlands.

Interestingly, participants themselves distinguished between the trait perspective of employee engagement and the state perspective of employee engagement during the follow-up interviews. Participants alluded to a general level of engagement that they experience in their work (i.e. trait-like engagement) that is subject to momentary fluctuations (i.e. state-like engagement). “Daar is ’n konstante lyn (refers to trait-like engagement). Dan gaan dit bietjie op of bietjie af (refers to state-like engagement), maar hy keer terug na die konstante lyn. (*There is a constant line* (refers to trait-like engagement). *Then it goes a bit up or a bit down* (refers to state-like engagement), *but it returns to the constant line.*)” “Nee, dit verander. Dit gaan... Op ’n dag sal dit of op gaan of af gaan (refers to state-like engagement). Ja, oor tyd kan dit op en af gaan. Dit kan terugkeer na ’n middelpunt (refers to trait-like engagement). (*No, it changes. It goes... On a day it will go up or down* (refers to state-like engagement). *Yes, it can go up and down over time. It can return to a center* (refers to trait-like engagement).)” “It is mostly constant (refers to trait-like engagement), but sometimes things happen that make it fluctuate (refers to state-like engagement).”

Participants attributed within-person variance in employee engagement to momentary fluctuations in school-level determinants. “Dit (refers to employee engagement) verander. Definitief. Nee, dit verander definitief. Dit hang af van die situasie. Ek weet dis nou nie ’n swart of wit antwoord nie, maar depending on the situation. (*It* (refers to employee engagement) *changes. Definitely. No, it definitely changes. It depends on the situation. I know that is not a black or white answer, but depending on the situation.*)” More specifically, participants explained that their perceived workload incurs within-person variance in employee engagement during particular times of the school year. “The calendar... The school programme. The school year does play a role.” “Dis soos seisoene. Nou is weer rustiger, want dit is toetsreeks tyd. Jy het jou peak seisoen en dan... Wat noem ’n mens dit? Net ’n gewone seisoen. Dit wissel volgens seisoen. (*It is like seasons. Now it is quieter, because it is the time of the test series. You have your peak season and then ... What do you call it? Just a regular season. It varies according to the season.*)” “Derde kwartaal... Horrible. Derde kwartaal is die

langste kwartaal... Meeste werk... Die kinders begin uitrafel en die kinders is ook al moeg. Die kwartaal is kort. 'n Mens is moeg die tyd van die jaar (refers to employee engagement). Jy is moeg. Dié kwartaal is nie vir my so erg soos die derde kwartaal nie. (*Third term... Horrible. Third term is the longest school term... Most work... The children start to get out of hand and the children are also tired. The school term is short. Teachers are tired this time of the year* (refers to employee engagement). *You are tired. For me, this school term is not as bad as the third term.*)” “Dit gaan nou belaglik klink, maar dit (refers to employee engagement) hang ook af van watter tyd van die jaar dit is, want jy bereik 'n plek waar jy net nie verder kan nie. (*This is going to sound ridiculous, but this* (refers to employee engagement) *also depends on what time of year it is, because you reach a point where you can not go further.*)”

Participants explained that momentary fluctuations in student-teacher relationships and interactions also incur within-person variance in employee engagement. “Dit is die student-teacher relationship wat daai (refers to momentary fluctuations in employee engagement) veroorsaak het. (*It is the student-teacher relationship that caused that* (refers to momentary fluctuations in employee engagement).)” “Die student-teacher relationship... Daai is die single... Die een groot ding wat my entoesiasme laat op en af gaan... Dan ook die school climate. Daai twee, maar wat ek agter gekom het, is, as dinge nie hier binne (refers to school climate) lekker is nie, maar dis okay in my klas (refers to student-teacher relationships and interactions), dan is ek fine. Ek kan bly in my klas, maar as dit in my klas nie lekker is nie, dan is ek nie okay nie. Dan lus ek sommer nie vir skool toe kom nie. (*The student-teacher relationship... That is the single... The one thing that makes my enthusiasm go up and down... Also the school climate. Those two, but what I found out is, if things are unpleasent in here* (refers to school climate), *but it is okay in my class* (refers to student-teacher relationships and interactions), *then I'm fine. I can stay in my class, but if it is unpleasant in my class, then I am not okay. Then I do not like coming to school.*)” “Jy sien daardie kinders of jy kry 'n glimlag, dan change hy vir jou. Dan lig dit jou op (refers to momentary fluctuations in employee engagement). (*You see those children or you get a smile, then it changes you. Then it lifts you up* (refers to momentary fluctuations in employee engagement).)”

The above-mentioned responses regarding momentary fluctuations in school-level determinants direct attention to micro-processes in the JD-R model (Bakker & Demerouti, 2017). This offers valuable insight into specific work conditions (i.e. job demands and job resources) that activate positive affective experiences and, in turn, explain within-person

variance in employee engagement. The above-mentioned responses also showed support for Daniels' (2006) notion that generalised perceptions of job characteristics must be distinguished from enacted job characteristics, as well as Ten Brummelhuis and Bakker's (2012) notion that volatile job demands and job resources should be distinguished from structural job demands and job resources. Acknowledging the dynamic nature of work conditions corresponds with episodic approaches to work and affect (e.g. Beal et al., 2005; Oerlemans & Bakker, 2013). These approaches suggest that employees' perception of specific work events lead to changes in their affective experiences and, in turn, explain within-person variance in behavioural outcomes.

Participants explained that teacher-level determinants reduce within-person variance in employee engagement. These teacher-level determinants include teaching motivation, personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) and coping strategies. “Veral soos ek wat nog verder wou studeer... As jy nie ’n 100 percent committed is nie (refers to teaching motivation), dan maak dit dat jy bietjie... Jy ervaar daai op en af. (*Especially like me who wanted to continue studying... If you are not 100 percent committed (refers to teaching motivation), then you... You experience that up and down.*)” “Ek dink dit (refers to employee engagement) begin by jou persoonlike hoedanigheid. Soos wat is jou emosionele intelligensie? Wat is jou psychological capital? Hoeveel het jy om te gee? Ek dink dit is so half die kern waarvan af jy werk. (*I think it (refers to employee engagement) begins with your personal capacity. Like what is your emotional intelligence? What is your psychological capital? How much do you have to give? I think it is the core that you work from.*)” “Coping mechanisms kan my laat beter voel, sommer hier op die oomblik. (*Coping mechanisms can make me feel better, here and now.*)”

In addition, participants also explained that tenure reduces within-person variance in employee engagement. “Daar is amper soos ’n ekwilibrium fase. Soos ons leer nou vir die Graad 11s van groei fases en een van hulle is ’n S-vorm. Aan die begin is daar stadige groei en dan op die ou ent kom dit by ’n ekwilibrium fase. Ek dink dit is ook so met die onderwysers. Aan die begin is dit op en af (refers to state-like engagement) en dan weet jy ook nog nie lekker hoe om alles te hanteer nie, maar dan kom jy by die ekwilibrium fase en partykeer gaan jy oor die dravermoë en partykeer gaan jy onder die dravermoë, maar jy kom weer terug by die ekwilibrium (refers to trait-like engagement). (*There is almost like an equilibrium phase. We are currently teaching the Grade 11s about growth phases and one of them is an S-form. In the beginning the growth*

is slow and then it reaches an equilibrium phase. I think it is the same when it comes to teachers. At first it is up and down (refers to state-like engagement) and you do not know how to handle everything, but then you reach the equilibrium phase and sometimes you exceed the carrying capacity and sometimes you go under the carrying capacity, but you return to the equilibrium (refers to trait-like engagement).)” “Ek dink as jy begin werk is jy nog baie onseker in dit. So, dan is daar baie wisseling (refers to state-like engagement). *(I think when you start working you are very unsure of yourself. So, there is a lot of fluctuation (refers to state-like engagement).)*” “Mens vergeet altyd ouderdom. Ouderdom kan dit ook laat stabiliseer (refers to trait-like engagement). Jou lewenservaring en maturity. *(One always forgets about age. Age can let this stabilise (refers to trait-like engagement). Your life experience and maturity.)*”

4.3.6. Bidirectional interactions between teachers and the environment

The ecological systems theory directs attention to the bidirectional nature of interactions between individuals and the environment that surrounds them. According to Bronfenbrenner (1977), interactions between individuals from the same system are bidirectional. He suggested that individuals in the same system interact and directly influence each other, as well as those in systems on either side of them. Information gathered during the follow-up interviews (i.e. Part 2) showed support for this notion. Participants highlighted the bidirectional nature of interactions between affinities from the same system, as well as those in systems on either side of them. “Meeste van die goed is reciprocal. *(Most of these things are reciprocal.)*” “Ek dink dit kan albei kante toe gaan. *(I think this can go both ways.)*” “Dis eintlik beide kante toe.” “Ek dink dis actually enetjie wat albei kante toe kan gaan. *(I think this is actually one that can go both ways.)*”

Regrettably, the IQA methodology does not recognise bidirectional interactions. Pareto and power analyses were used to determine the optimal number of relationships that should be included in the composite IRD and the resultant SID to explain the maximum amount of variance in the system (Northcutt & McCoy, 2004). As a result, bidirectional interactions were excluded from the composite uncluttered SID, as well as the emerging structural model.

4.4. Emerging Structural Model

Based on the qualitative results and a review of the extant literature, the structural model presented in Figure 4.4 emerged.

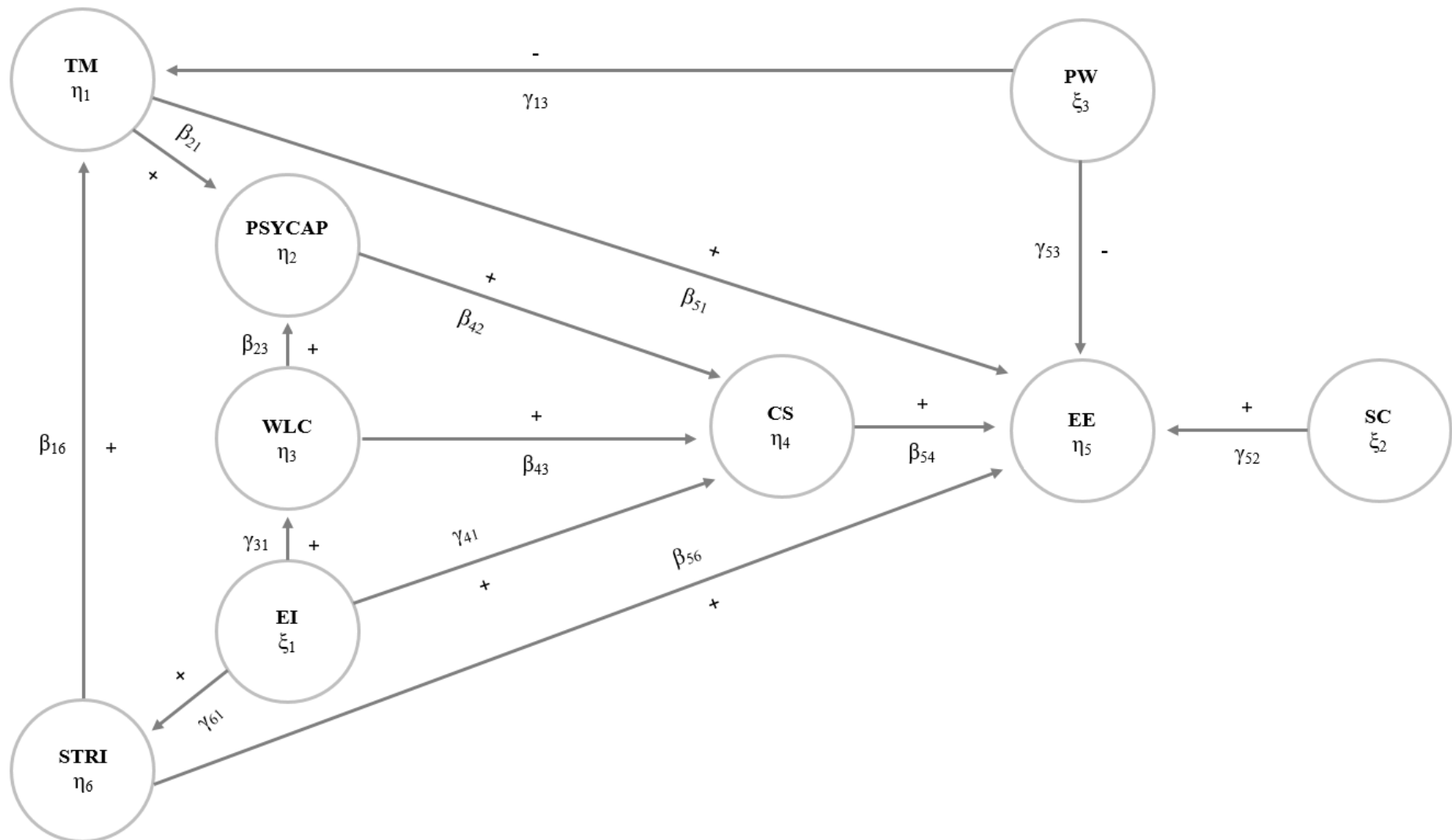


Figure 4.4 Emerging structural model

Note: η_1 , Teaching motivation; η_2 , Psychological capital; η_3 , Work locus of control; η_4 , Coping strategies; η_5 , Employee engagement; η_6 , Student-teacher relationships and interactions; ξ_1 , Emotional intelligence; ξ_2 , School climate; ξ_3 , Perceived workload.

In accordance with the ecological systems theory, the four nested and interconnected structures, as shown in Figure 4.3, range from proximal settings to settings that are more distal. Even though the qualitative results suggest that proximal (i.e. microsystem), as well as distal (i.e. exosystem and macrosystem), settings explain variance in employee engagement among public school teachers in the Western Cape Province, Bronfenbrenner (1977) highlighted the significance of proximal conditions and processes, which emanate from individuals' immediate setting, in producing and sustaining human development. By extrapolating from this notion, the researcher proposed that school-level determinants directly influence employee engagement among public school teachers. Events that occur in distal settings indirectly influence conditions and processes in schools and, in turn, employee engagement among public school teachers. In consideration of this, community- and societal-level determinants were excluded from the emerging structural model.

The researcher also decided to exclude school facilities and teaching resources from the emerging structural model. Even though the majority of participants expressed that school facilities and teaching resources equip them to perform their work tasks effectively, some participants remarked that other factors are more salient predictors of employee engagement. “Ek het al gewerk met baie en ek het al gewerk met min. Ek het besef dat al het ek 'n data projektor, as ek dit nie gebruik nie, is dit net daar. So, dit beïnvloed nie hoe opgewonde ek is om te skoolgee nie. Dit sou ongemaklik wees as ek moet skoolhou waar daar nie 'n toilet is nie, maar dit beïnvloed nie hoe entoesiasies en gemotiveerd ek is om skool te hou nie. (*I have worked with a lot and I have worked with little. I realised that even though I have a data projector, if I do not use it, it is just there. So, it does not influence how excited I am about teaching. It would be uncomfortable if I had to teach where there is no toilet, but it does not influence how enthusiastic and motivated I am about teaching.*)” “It (refers to school facilities and teaching resources) doesn't have as much of an impact as I thought it would.” “Jy kan die beste equipment hê. Dit kan on point wees, maar as jou ingesteldheid (refers to teaching motivation) nie reg is nie, help dit nie. (*You can have the best equipment. It can be on point, but if your attitude (refers to teaching motivation) is not right, it does not help.*)” “Om 'n fasiliteit te bou van tien biljoen is ook nie die oplossing nie. Dis die mense binne die instituut wat moet verander. Daai is wat moet verander. Sodra die mense en die mense se mindset en die mense se totale ingesteldheid (refers to teaching motivation) binne die setup kan verander, dan gaan die skool verander. (*Building a facility of ten billion is also not the solution. The people inside the institute need to change. That is what has to change. Once the people and the*

mindset of the people and the total attitude of the people (refers to teaching motivation) in the setup changes, then the school will change.)”

The researcher was confident that the above-mentioned exclusions would not compromise the substantive meaningfulness of the emerging structural model. She anticipated that the indirect effect of events that occur in distal settings would, to some extent, be accounted for by making a distinction between fee schools and no-fee schools in the quantitative phase of the study. Moreover, as mentioned in Chapter 1, the researcher was primarily interested in identifying positive attributes and strengths that can be measured, developed and effectively managed to foster employee engagement among public school teachers in the Western Cape Province. For this reason, the emerging structural model primarily concentrated on teacher-level determinants.

The propositions underlying the emerging structural model will be discussed below:

4.4.1. Teaching motivation and employee engagement

Research has consistently demonstrated that calling is positively related to the physical and psychological health outcomes of employees and organisational outcomes (e.g. Duffy, Bott, Allan, Torrey & Dik, 2012; Duffy & Dik, 2013). With reference to the context of the study, research has indicated that calling is positively related to employee engagement. As an illustration, a cross-sectional study conducted by Hirschi (2012) among 529 heterogeneous employees in Germany demonstrated that calling predicted employee engagement indirectly. Hirschi showed that calling was positively associated with career outcomes (i.e. work meaningfulness, occupational identity and occupational self-efficacy), which, in turn, mediated the relationship between calling and employee engagement. Similarly, a longitudinal study conducted by Xie, Xia, Xin and Zhou (2016) among 832 heterogeneous employees in China found that calling predicted employee engagement through career adaptability. Along the same lines, a cross-sectional study conducted by Ugwu and Onyishi (2018) among 207 primary and secondary school teachers in Nigeria indicated that calling predicted employee engagement directly.

By extrapolating from the above-mentioned studies and the qualitative results, the researcher argued that the extent to which teachers feel called to pursue a career in teaching determines the level of engagement that they experience. For this reason, it was proposed that teaching

motivation (i.e. calling orientation)²⁵ has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

Proposition 1: Teaching motivation has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

Hirschi (2012) and Xie et al. (2016) demonstrated that more research is needed to gain a comprehensive understanding of the relationship between calling and the physical and psychological health outcomes of employees and organisational outcomes, as other latent variables mediate it. The researcher supported this notion. She argued that individual differences in other teacher-level determinants that were identified during the initial interviews mediate the proposed relationship between teaching motivation (i.e. calling orientation) and employee engagement. These teacher-level determinants include teaching motivation, personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) and coping strategies.

Within the parameters of the JD-R model, the above-mentioned teacher-level determinants were operationalised as personal resources (Xanthopoulou et al., 2007) and effective coping strategies (Tims et al., 2013). It is important to recognise that research has focussed primarily on the direct relationship that exists between personal resources and employee engagement. For example, a cross-sectional study conducted by Joo, Lim and Kim (2016) among 599 knowledge workers from a conglomerate in South Korea showed that employees, who had positive psychological capital, were more engaged in their work. Gupta, Shaheen and Reddy (2017) reported comparable results among 293 employees from diverse service sector industries in India. Gupta and his colleagues showed that positive psychological capital was positively associated with employee engagement, which, in turn, mediated the relationship between positive psychological capital and organisational citizenship behaviour.

In response to the fact that research has focussed primarily on the direct relationship that exists between personal resources and employee engagement, Menguc, Auh, Fisher and Haddad

²⁵ As mentioned in Chapter 3, the majority of participants described teaching as something that is valuable as an end in itself and serves the greater good (i.e. calling orientation) during the initial interviews. In consideration of this, the researcher decided to operationalise calling orientation as teaching motivation in the quantitative phase. Job orientation and career orientation were excluded from the subsequent analyses.

(2013) recommended that future research should move from an additive model toward an interaction model, which explores the relationships that exist between personal resources themselves. For this reason, the researcher decided to explore the mediating role of personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) and coping strategies, as well as the relational dynamics that exist among these teacher-level determinants in the study.

Regrettably, the relational dynamics that exist among personal characteristics were not explored during the follow-up interviews. Psychological capital, emotional intelligence and work locus of control were subsumed under a single affinity, namely personal characteristics. The researcher acknowledged that this was a limitation of the qualitative phase. She addressed this limitation by operationalising psychological capital, emotional intelligence and work locus of control as separate latent variables in the emerging structural model.

4.4.2. Teaching motivation and psychological capital

By extrapolating from the above-mentioned studies and the qualitative results, the researcher contended that teaching motivation (i.e. calling orientation) has a significant positive influence on psychological capital among public school teachers in the Western Cape Province. She proposed that teachers, who feel called to pursue a career in teaching, would be more likely to exhibit positive psychological capital, especially self-efficacy, hope and resilience.

Although calling and self-efficacy are conceptually distinct, research has shown that these latent variables are theoretically and empirically related. For example, a cross-sectional study conducted by Hirschi (2012) among 529 heterogeneous employees in Germany showed that a positive association exists between calling and occupational self-efficacy. Employees, who felt called to pursue a career in their occupation, were more likely to invest time and effort in their work, as work goals were consistent with their calling. As a consequence, these employees were more likely to achieve work goals, which, in turn, strengthened their occupational self-efficacy beliefs.

The researcher proposed that employees, who experience a sense of competence in the domain of their calling, will be more likely to persevere toward work goals (i.e. hope) and sustain and bounce back when beset with adversity and problems at work (i.e. resilience). Research has shown partial support for this notion. As an illustration, a cross-sectional study conducted by Keye and Pidgeon (2013) among 141 university students in Australia found that academic self-

efficacy was positively related to resilience. Schwarzer and Warner (2013) supported this notion.

The researcher drew on the social cognitive theory (Bandura, 1999) to offer a theoretical explanation of the above-mentioned proposition. The social cognitive theory suggests that individuals' belief in their capability to produce desired effects through their behavioural efforts lay the foundation of human agency. To put it differently, self-efficacy beliefs regulate emotional well-being and human functioning through affective, motivational, cognitive and selective processes. In accordance with this, the researcher proposed that teachers, who feel called to pursue a career in teaching, would be more likely to exhibit self-efficacy. In turn, when beset with adversity and problems at work, these teachers will be more likely to persevere toward work goals (i.e. hope) and sustain and bounce back when beset with adversity and problems at work (i.e. resilience), as they believe in their capability to achieve work goals.

Proposition 2: Teaching motivation has a significant positive influence on psychological capital among public school teachers in the Western Cape Province.

4.4.3. Emotional intelligence and work locus of control

As mentioned in Chapter 2, based on the qualitative results and a review of the extant literature, the researcher decided to define emotional intelligence in accordance with Palmer et al. (2009). Three of the dimensions subsumed under their definition of emotional intelligence refer to a sense of mastery and perceived control over emotions. More specifically, these dimensions refer to the extent to which employees can effectively manage and control their emotions (i.e. emotional self-management and emotional self-control) and positively influence the emotions of others (i.e. emotional management of others).

The researcher suggested that it is plausible that the sense of mastery and perceived control associated with the above-mentioned dimensions of emotional intelligence extend to work matters. She proposed that teachers, who have high emotional intelligence, would be more likely to regulate and control their emotions and behaviours according to situational appropriateness. This will enable them to exercise personal control over work matters and, in turn, strengthen their belief that reinforcement or outcomes at work depend on their behaviour or personal characteristics. For this reason, it was proposed that emotional intelligence has a

significant positive influence on work locus of control among public school teachers in the Western Cape Province.

Research has shown that emotional intelligence and generalised, as well as domain-specific, locus of control are theoretically and empirically related. As an illustration, a cross-sectional study conducted by Singh (2006) among 178 social work professionals in India demonstrated that emotional intelligence and locus of control were related. Singh found that social work professionals, who had high emotional intelligence, believed that reinforcement or outcomes depend on their behaviour or personal characteristics (i.e. internal locus of control). In contrast, social work professionals, who had low emotional intelligence, believed that reinforcement or outcomes are beyond their control (i.e. external locus of control). Along the same lines, a cross-sectional study conducted by Ng, Ke and Raymond (2014) among 242 nurses in Malaysia demonstrated that high emotional intelligence was positively associated with internal work locus of control, which, in turn, mediated the relationship between high emotional intelligence and organisational citizenship behaviour.

Proposition 3: Emotional intelligence has a significant positive influence on work locus of control (i.e. internal work locus of control) among public school teachers in the Western Cape Province.

4.4.4. Psychological capital and work locus of control

As mentioned in Chapter 2, Luthans et al. (2007) directed attention to the underlying agentic capacity associated with each dimension of psychological capital. In accordance with Lefcourt (1966), the researcher proposed that teachers, who have an internal work locus of control, may be more likely to accept personal responsibility for reinforcement or outcomes at work. This, in turn, may strengthen their ability to make a positive attribution about achieving success in the present and the future (i.e. optimism); persevere toward work goals and, when needed, redirect paths to work goals to achieve success (i.e. hope); and, when beset by problems and adversity at their work, sustain and bounce back to achieve success (i.e. resilience). In addition, it may also strengthen their belief in their capability to achieve success (i.e. self-efficacy).

Even though “the link between psychological capital and personality is somehow implicit in academic writing” (Brandt, Gomes & Boyanova, 2011, p. 11), research has shown that psychological capital converges with established personality traits. For example, a cross-sectional study conducted by Choi and Lee (2014) among 373 employees in diverse industries

in South Korea demonstrated that a positive association exists between psychological capital and the big five personality factors. Along the same lines, research has shown that psychological capital converges with work locus of control. For example, a longitudinal study conducted by Shaik and Buitendach (2015) among 515 middle managers from the recruitment industry in South Africa demonstrated that work locus of control predicted psychological capital.

The researcher drew on Hobfoll's (1989) COR theory and Fredrickson's (2004) broaden-and-build theory to offer a theoretical explanation of the above-mentioned proposition. The broaden-and-build theory provides a framework that can be used to make sense of the functional importance of positive emotions, specifically when coping with negative emotional circumstances. It suggests that emotions have distinct and complementary adaptive functions and physiological effects. Negative emotions narrow employees' thought-action repertoires. In contrast, positive emotions broaden employees' thought-action repertoires and build their resources (Fredrickson, 2004).

The COR theory suggests that employees strive to acquire, maintain, preserve and accumulate tangible, as well as intangible, resources. Resources are "objects, personal characteristics, conditions, or energies that are valued by the employees or that serve as a means for the attainment of these objects, personal characteristics, conditions, or energies" (Hobfoll, 1989, p. 516). Resources generate each other, since a particular resource may be linked with or replace another resource. This linkage and interplay between resources are known as "resources caravans" (Hobfoll, 2001, p. 343).

Proposition 4: Work locus of control (i.e. internal work locus of control) has a significant positive influence on psychological capital among public school teachers in the Western Cape Province.

Research has shown that each of the above-mentioned personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) is positively related to the physical and psychological health outcomes of employees and organisational outcomes. With reference to the context of the study, research has demonstrated that each of the above-mentioned personal characteristics is positively related to employee engagement. As an illustration, a cross-sectional study conducted by Brunetto, Teo, Shacklock and Farr-Wharton (2012) among 193 police officers in Australia found that emotional intelligence had a

significant positive influence on well-being and job satisfaction, which, in turn, predicted employee engagement. Similarly, a cross-sectional study conducted by Toyama and Mauno (2017) among 489 eldercare nurses in Japan indicated that high emotional intelligence was positively related to employee engagement.

The qualitative results also suggested that each of the above-mentioned teacher-level determinants is associated with employee engagement among public school teachers in the Western Cape Province. Participants explained that psychological capital, emotional intelligence and work locus of control enables them to remain engaged in their work despite the demands that they encounter.

The researcher drew on Hobfoll's (1989) COR theory and Demerouti et al.'s (2001) JD-R model to offer a theoretical explanation of the above-mentioned proposition. The COR theory suggests "resource caravans" (Hobfoll, 2001, p. 343) are created when the number of resources that are available to employees increase. This, in turn, leads to favourable physical and psychological health outcomes among employees (Hobfoll, 1989). The researcher remarked that these favourable physical and psychological health outcomes might include employee engagement.

The above-mentioned notion of resource caravans corresponds with the motivational process proposed by the JD-R model. As mentioned in Chapter 2, job resources are believed to play an intrinsic, as well as an extrinsic, motivational role in the motivational process, which is associated with well-being, positive attitudes and employee engagement (Bakker & Demerouti, 2007). In addition to job resources, Xanthopoulou et al. (2007) proposed that personal resources are also related to employee engagement.

It is, however, important to note that the researcher proposed that the coping strategies that public school teachers in the Western Cape Province adopt mediate the association between the above-mentioned personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) and employee engagement. Research has also directed attention to the mediating effect that coping strategies have on the relationship between the above-mentioned personal characteristics and the physical and psychological health outcomes of employees. As an illustration, a cross-sectional study conducted by Zhou et al. (2017) among 538 nurses in China demonstrated that coping styles partially mediated the relationship between psychological capital and psychological distress. Zhou and his colleagues showed that

nurses, who had positive psychological capital, adopted positive coping, which, in turn, reduced the level of psychological distress that they experienced. In contrast, nurses, who had negative psychological capital, adopted negative coping, which, in turn, increased the level of psychological distress that they experienced. Along the same lines, a cross-sectional study conducted by Wilski et al. (2015) among 155 physiotherapists in Poland showed that emotion-focussed coping and problem-focussed coping mediated the relationship between external work locus of control and burnout.

4.4.5. Psychological capital and coping strategies

The researcher proposed that psychological capital is related to coping strategies among public school teachers in the Western Cape Province. As mentioned in Chapter 2, she advocated that teachers, who have positive psychological capital, would be more likely to respond positively to demands. The optimism that these teachers have about the present and the future, as well as their belief in their capacity to deal with demands, may enable them to appraise the demands that they encounter as challenges, as opposed to threats (Lazarus, 1991). As a consequence, teachers, who have positive psychological capital, will be more likely to actively deal with the source of job stress or related emotions by adopting engagement coping (i.e. active coping, turning to religion and seeking emotional support) (Carver & Connor-Smith, 2010).

Research has shown partial support for this notion. As an illustration, a cross-sectional study conducted by Karmakar (2016) among 310 executives from public and private sector banks in India found that psychological capital and coping strategies were related. Karmakar found that executives, who had positive psychological capital, adopted functional coping strategies (i.e. active coping, planning, positive reinterpretations, seeking social support for emotional reasons, seeking social support for instrumental reasons and suppression of competing activities) to master, manage or tolerate the demands that they encounter. In contrast, executives, who had negative psychological capital, adopted dysfunctional coping styles (i.e. behavioural disengagement, denial and mental disengagement) to master, manage or tolerate the demands that they encounter. Li and Xiangpei (2011) reported comparable results among 426 university graduates in China. Li and her colleague found that graduates, who had positive psychological capital, adopted mature, active coping styles (i.e. problem-solving, rationalisation and seeking help) to deal with difficulties and setbacks during job seeking, while graduates, who had negative psychological capital, adopted immature coping styles (i.e. avoidance, fantasising and self-blame).

Proposition 5: Psychological capital has a significant positive influence on coping strategies among public school teachers in the Western Cape Province.

4.4.6. Work locus of control and coping strategies

The researcher also proposed that work locus of control is related to coping strategies among public school teachers in the Western Cape Province. As mentioned in Chapter 2, she advocated that teachers, who have an internal work locus of control, will be more likely to believe that reinforcement or outcomes at work depend on their behaviour or personal characteristics (Spector, 1988). For this reason, these teachers may accept personal responsibility for reinforcement or outcomes at work (Lefcourt, 1966). As a consequence, teachers, who have an internal work locus of control, may be more likely to actively deal with the source of job stress or related emotions by adopting engagement coping (i.e. active coping, turning to religion and seeking emotional support) (Carver & Connor-Smith, 2010).

Research has shown partial support for this notion. For example, a cross-sectional study conducted by Brown, Mulhern and Joseph (2002) among 248 firefighters in Northern Ireland revealed that locus of control and coping strategies were related. Brown and her colleagues found that firefighters, who had an internal locus of control, adopted task-focussed or emotion-focussed coping to master, manage or tolerate the demands that they encounter. In contrast, firefighters, who had an external locus of control, adopted avoidance coping to master, manage or tolerate the demands that they encounter. Along the same lines, a cross-sectional study conducted by Dijkstra and Homan (2016) among 543 heterogeneous employees in the Netherlands demonstrated that perceived control was positively associated with engaged coping (i.e. active confronting and reassuring thoughts) and negatively associated with disengaged coping (i.e. avoidance, palliative reaction and passive reaction pattern).

Proposition 6: Work locus of control (i.e. internal work locus of control) has a significant positive influence on coping strategies among public school teachers in the Western Cape Province.

4.4.7. Emotional intelligence and coping strategies

In addition to Propositions 5 and 6, the researcher added that emotional intelligence is also related to coping strategies among public school teachers in the Western Cape Province. With

reference to Palmer et al.'s (2009) definition of emotional intelligence, she advocated that teachers, who have high emotional intelligence, will be more likely to regulate their emotional response to the demands that they encounter (i.e. emotional self-control and emotional self-management). This may enable them to appraise the demands that they encounter as challenges, as opposed to threats (Lazarus, 1991). As a consequence, teachers, who have high emotional intelligence, will be more likely to actively deal with the source of job stress or related emotions by adopting engagement coping (i.e. active coping, turning to religion and seeking emotional support) (Carver & Connor-Smith, 2010).

Research has shown partial support for this notion. As an illustration, a cross-sectional study conducted by King and Gardner (2006) among 157 heterogeneous employees in New Zealand revealed that emotional intelligence, specifically emotional self-management, play a pivotal role in managing job stress. King and her colleague found that emotional self-management was positively related to challenge appraisal and task-focussed coping, and negatively related to threat appraisal and avoidance coping. These results suggest that employees, who were able to manage their emotions, were more likely to appraise the demands that they encounter as challenges and adopt task-focussed coping. In contrast, employees, who were unable to manage their emotions, were more likely to appraise the demands that they encounter as threats and adopt avoidance coping.

Proposition 7: Emotional intelligence has a significant positive influence on coping strategies among public school teachers in the Western Cape Province.

The researcher drew on Lazarus' (1966) cognitive-transactional perspective to offer a theoretical explanation of Propositions 5 through 7. The cognitive-transactional perspective provides a framework for evaluating the processes of coping with stressors. As mentioned in Chapter 2, it suggests that job stress is a function of employees' cognitive appraisal of the significance of demands to their work goals and well-being (i.e. primary appraisal), as well as the perceived availability of resources to deal with demands (i.e. secondary appraisal). Lazarus distinguished between two forms of cognitive appraisal, namely primary appraisal and secondary appraisal. Both forms of cognitive appraisal occur simultaneously, but rely on different sources of information.

Primary appraisal, also known as demand appraisal, concerns the significance of demands to employees' work goals and well-being. During this appraisal, demands are categorised as either challenging, threatening or harmful. Challenging demands are experienced as pleasant, exciting and interesting. Employees feel confident in their ability to master these demands. In contrast, threatening demands are experienced negatively, as employees anticipate that these demands may incur harm. Harmful demands are also experienced negatively, as the harm that employees anticipated has already occurred. Secondary appraisal, on the other hand, also known as resource appraisal, concerns the availability of resources to deal with demands. These cognitive appraisals jointly determine employees' resultant action tendencies (Lazarus, 1991).

The researcher argued that teachers, who have positive psychological capital, an internal work locus of control and high emotional intelligence, will be more likely to appraise and interpret the demands that they encounter as challenges and, in turn, adopt engagement coping (i.e. active coping, turning to religion and seeking emotional support) (Carver & Connor-Smith, 2010).

4.4.8. Coping strategies and employee engagement

As mentioned in Chapter 2, job crafting and self-undermining are typically operationalised as coping strategies within the parameters of the JD-R model (Harju et al., 2016). Research has demonstrated that a positive association exists between job crafting (i.e. increasing social job resources, increasing structural job resources and increasing challenging job demands) and employee engagement. For example, a validation study conducted by Tims et al. (2012) among 95 dyads from heterogeneous organisations in the Netherlands demonstrated that crafting behaviour aimed at increasing job resources (i.e. social and structural resources) and challenging job demands was positively related to employee engagement. Consistent with this, a longitudinal study conducted by Tims et al. (2013) among 288 employees from a chemical plant in the Netherlands revealed that crafting behaviour aimed at increasing challenging job demands was positively related to employee engagement.

The qualitative results also directed attention to coping strategies. However, as mentioned in Chapter 3, the coping strategies that participants mentioned during the initial interviews could not be subsumed under the dimensions of job crafting (i.e. increasing social job resources, increasing structural job resources, increasing challenging job demands and decreasing hindering job demands) (Tims et al., 2012). Participants identified alternative cognitive and

behavioural efforts. This corresponds with the notion that the JD-R model may be adapted to include other individual strategies, apart from job crafting and self-undermining (Bakker & Demerouti, 2017).

The researcher decided to conceptualise the coping strategies that participants mentioned during the initial interviews in accordance with Pienaar and Rothmann (2003). As mentioned in Chapter 3, Pienaar and his colleague subjected Carver et al.'s (1989) COPE Questionnaire to PCA with varimax rotation. The results suggested that the COPE Questionnaire consists of four internally consistent factors (i.e. approach coping, seeking emotional support, turning to religion and avoidance coping). Mostert and Joubert (2005) reported comparable results. However, Mostert and her colleague subjected the internally consistent factors to a second PCA with varimax rotation. Based on the results obtained, Mostert and Joubert (2005) concluded that the internally consistent factors could be divided into two dimensions, namely approach coping (i.e. active coping, turning to religion and seeking emotional support) and avoidance coping. The researcher contended that these dimensions correspond with the distinction between engagement coping, or approach coping, and disengagement coping, or avoidance coping (e.g. Moos & Schaefer, 1993; Roth & Cohen, 1986) that was mentioned in Chapter 2.

In line with the above-mentioned studies, in addition to the positive association between job crafting and employee engagement, research has also demonstrated that a positive association exists between other coping strategies and employee engagement. As an illustration, a cross-sectional study conducted by Parker and Martin (2009) among 515 teachers from 18 schools in Australia found that teachers, who adopted direct coping strategies (i.e. mastery orientation and planning) to master, manage or tolerate the demands that they encounter, were more engaged in their work. In contrast, teachers, who adopted palliative coping strategies (i.e. failure avoidance and self-handicapping) to master, manage or tolerate the demands that they encounter, were less engaged in their work. It was, therefore, proposed that teachers, who adopt engagement approach coping (i.e. active coping, turning to religion and seeking emotional support), will be more likely to remain engaged in their work despite the demands that they encounter.

Proposition 8: Coping strategies have a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

The most consistent finding throughout the stress and coping literature is that coping strategies influence the physical and psychological health outcomes of employees. With reference to the context of the study, research has indicated that the subjective selection and use of coping strategies influence the level of engagement that employees experience. Interestingly, the reverse relationship has not received a great deal of attention (Hakanen, Peeters & Schaufeli, 2018). In consideration of this, the researcher argued that it would be valuable to determine whether the physical and psychological health outcomes of employees, specifically employee engagement, influence the coping strategies that employees adopt to master, manage or tolerate the demands that they encounter.

Bakker (2011, p. 265) remarked that employees, who are engaged in their work, “are bursting with energy, dedicated to their work, and immersed in their work activities”. Bakker added that these employees have high levels of energy and are happily engrossed in their work, which enables them to respond to the demands that they encounter actively. In consideration of this, the researcher suggested that employee engagement may have a significant positive influence on coping strategies (i.e. engagement coping) among public school teachers in the Western Cape Province. A longitudinal study conducted by Hakanen et al. (2018) among 1877 dentists in Finland demonstrated partial support for this notion. Hakanen and his colleagues found that dentists, who were engaged in their work, built a resourceful and challenging work environment for themselves through crafting behaviour. These dentists increased their job resources (i.e. social and structural) and challenging job demands.

Hobfoll's (1989) COR theory and Fredrickson's (2004) broaden-and-build theory offers a theoretical explanation of the reverse relationship between employee engagement and coping strategies. Nonetheless, it was not explored in the quantitative phase of the study. As mentioned, bidirectional interactions were excluded from the composite uncluttered SID, as well as the emerging structural model. In line with the primary objective of the study, the researcher decided to determine whether the subjective selection and use of coping strategies explain variance in the level of engagement that teachers experience, rather than whether employee engagement explains variance in the subjective selection and use of coping strategies among teachers. She recommended that future research should explore the reverse relationship between employee engagement and coping strategies.

4.4.9. Perceived workload and employee engagement

Perceived workload²⁶ was operationalised as a hindering job demand among public school teachers in the Western Cape Province. Based on the qualitative results, the researcher argued that teachers might appraise perceived workload as having the potential to harm personal growth or gains. Teachers will, therefore, be less willing to invest time and effort in response to hindering job demands in order to prevent further energy depletion and increased job stress (Bakker & Demerouti, 2007). This, in turn, may negatively influence the level of engagement that they experience. By implication, perceived workload has a significant negative influence on employee engagement among public school teachers in the Western Cape Province.

Research has shown that hindering job demands and employee engagement are negatively related. For example, a meta-analysis conducted by Crawford, LePine and Rich (2010) demonstrated that job demands that employees appraised as hindrances (i.e. hindering job demands) were negatively associated with employee engagement, while job demands that employees appraised as challenges (i.e. challenging job demands) were positively associated with employee engagement. Bakker and Sanz-Vergel (2013) reported comparable results among 63 home healthcare nurses in the Netherlands.

The researcher drew on the JD-R model (Demerouti et al., 2001) to offer a theoretical explanation of the above-mentioned proposition. As mentioned in Chapter 2, the basic premise of the JD-R model suggests that two parallel processes influence the level of strain (e.g. disengagement, health complaints or job burnout) or motivation (e.g. commitment, employee engagement or flourishing) that employees experience and, in turn, their behavioural outcomes (e.g. job performance) (Bakker & Demerouti, 2017). These processes are the health impairment process and the motivational process (Schaufeli & Bakker, 2004).

The health impairment process involves the physical and mental exhaustion related to chronic job demands or poorly designed jobs. Poorly designed jobs, characterised by a lack of job resources, make it difficult for employees to meet job demands and achieve work goals. In these instances, employees exhibit withdrawal behaviour to prevent further energy depletion

²⁶ As mentioned in Chapter 3, the researcher suggested that challenges associated with quantitative, as well as qualitative, workload or overload among public school teachers in the Western Cape Province are as a result of illegitimate tasks (Semmer et al., 2010). In view of the fact that little is known about this contemporary job stressor, she decided to operationalise illegitimate tasks as perceived workload in the quantitative phase.

and increased job stress (i.e. motivational component of job burnout). Chronic exposure to high job demands renders employees unable to recover from mobilising additional energy. Sustained activation eventually results in physical and mental exhaustion that leads to disengagement, health complaints or job burnout (i.e. energy component of job burnout) (Bakker & Demerouti, 2007).

Notably, the researcher acknowledged that research has found that job resources are involved in the health impairment process (in addition to the motivational process), while job demands are involved in the motivational process (in addition to the health impairment process). For example, a cross-sectional study conducted by Hakanen, Bakker and Schaufeli (2006) among 2038 teachers in Finland demonstrated cross-links between the health impairment process and the motivational process. Hakanen and his colleagues found that organisational commitment was affected by the availability of job resources, as well as the presence of job demands. Van Den Broeck et al. (2008) reported comparable results among 745 employees in Belgium.

Proposition 9: Perceived workload has a significant negative influence on employee engagement among public school teachers in the Western Cape Province.

Research has focussed primarily on identifying job demands that teachers encounter (e.g. Marais & Meier, 2010; Wolhuter & Russo, 2013). The researcher suggested that more research is needed to develop a comprehensive understanding of the motivational role and buffering effect of job resources among public school teachers in the Western Cape Province. Although some job resources are found in nearly all occupational settings, as mentioned in Chapter 2, there are demand and resource dimensions that are unique to particular occupational settings. For example, a cross-sectional study conducted by Hakanen et al. (2005) among 1919 dentists in Finland directed attention to the salience of positive patient contacts in dentistry. In accordance with this, the qualitative results highlighted two occupation-specific job resources, namely school climate and student-teacher relationships and interactions.

4.4.10. School climate and employee engagement

The researcher argued that school climate is an occupation-specific job resource that influences the physical and psychological health outcomes of teachers. More specifically, she proposed that school climate has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

Research has shown partial support for this notion. For example, a cross-sectional study conducted by Sisask et al. (2014) among 2485 teachers from 158 schools indicated that general school climate and the psychological well-being of teachers were related. Sisask and her colleagues found that teachers, who were satisfied with the general climate of their school, reported higher levels of psychological well-being compared to their counterparts. Grayson and Alvarez (2008) reported comparable results among 320 employees, mostly teachers ($n = 272$), from 17 public schools in the United States of America. Grayson and her colleague also found that school climate was related to job burnout.

The researcher drew on Blau's (1964) social exchange theory to offer a theoretical explanation of the above-mentioned proposition. As mentioned in Chapter 2, based on the norm of reciprocity (Gouldner, 1960), the social exchange theory suggests that social exchange relationships involve a series of interactions between two parties that generate a psychological contract of unspecified obligations. In other words, the support offered by one party in a social exchange relationship develops expectations of reciprocity by the other party. When a social exchange relationship conforms to the norm of reciprocity and patterns of exchange are perceived to be fair, both parties believe that the other party is not exploiting them. In these instances, both parties recognise that the support received in the present develops expectations that should be reciprocated in the future. In accordance with this, the researcher proposed that teachers would reciprocate the collegial leadership of principals and teacher professionalism of other teachers by being enthusiastic, energetic, motivated and passionate about their work - characteristic of engaged employees.

Proposition 10: School climate has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

4.4.11. Student-teacher relationships and interactions and employee engagement

In addition to school climate, student-teacher relationships and interactions were also operationalised as an occupation-specific job resource. Sutton and Harper (2009, p. 389) explained that, “teaching is an emotional endeavour”. Teachers experience various emotions daily. These emotions typically unfold in the interactions between themselves and the environment that surrounds them. Even though teachers interact with a number of individuals

(e.g. colleagues, students and the parents of students) on any given day at work, research has shown that the relationships and interactions between themselves and their students are the most salient antecedent of variance in the emotions of teachers (e.g. Frenzel, Goetz, Lüdtke, et al., 2009; Frenzel, Goetz, Stephens, et al., 2009). For this reason, it was proposed that student-teacher relationships and interactions are related to the physical and psychological health outcomes of teachers. More specifically, positive student-teacher relationships and interactions have a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

Research has shown partial support for this notion. As an example, a cross-sectional study conducted by Yoon (2002) among 113 teachers from elementary schools in the United States of America showed that negative teacher-student relationships and interactions are associated with negative affect and increased teacher stress. Along the same lines, Hamre, Pianta, Downer and Mashburn (2008) reported that negative teacher-student relationships and interactions are associated with depression and low self-efficacy among 597 teachers from pre-schools.

The researcher drew on the emotional contagion framework to offer a theoretical explanation of the above-mentioned proposition. The principle of emotional contagion suggests that the emotions of employees (i.e. positive emotions or negative emotions) produce corresponding changes in the emotional state of observers. Research has shown support for this principle. For example, a simulation study conducted by Hennig-Thurau, Groth, Paul and Gremler (2006) among 223 customer-employee dyads showed that service employees' affective displays (i.e. authenticity) influenced the emotional state of customers (i.e. positive affect), as well as customer outcomes (i.e. future loyalty intentions). Wang et al. (2017) reported comparable results based on 326 customer-employee dyadic transactions with 122 service employees.

Proposition 11: Student-teacher relationships and interactions have a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

Teacher enthusiasm has attracted a great deal of attention in education literature due to its association with student progression and achievement (e.g. Keller, Hoy, Goetz & Frenzel, 2016; Keller, Neumann & Fischer, 2013). Research has shown that teacher enthusiasm is related to the motivational, affective and behavioural characteristics of students. As an illustration, a cross-sectional study conducted by Cui, Yao and Zhang (2017) among 734

students in China revealed that a negative association exists between teacher enthusiasm and class-related boredom. Along the same lines, a longitudinal study conducted by Frenzel, Goetz, Lüdtke, et al. (2009) among 1542 students from 71 classrooms in Germany indicated that teacher enthusiasm mediated the positive association between teacher enjoyment and student enjoyment.

By extrapolating from the above-mentioned results, the researcher suggested that employee engagement among public school teachers in the Western Cape Province might have a significant positive influence on student-teacher relationships and interactions. She advocated that teachers, who are engaged in their work, would be more likely to cultivate positive student-teacher relationships and interactions. More specifically, the enthusiasm, energy, motivation and passion of these teachers will be transferred to students through social interaction. This corresponds with theories of academic interest (e.g. Hidi & Renninger, 2006).

Even though the above-mentioned emotional contagion framework offers a theoretical explanation of the reverse relationship between employee engagement and student-teacher relationships and interactions, it was not explored in the quantitative phase of the study. As mentioned, bidirectional interactions were excluded from the composite uncluttered SID, as well as the emerging structural model. In line with the primary objective of the study, the researcher decided to determine whether student-teacher relationships and interactions explain variance in the level of engagement that teachers experience, rather than whether employee engagement explains variance in student-teacher relationships and interactions. She recommended that future research should explore the reverse relationship between employee engagement and student-teacher relationships and interactions.

4.4.12. Emotional intelligence and student-teacher relationships and interactions

Research has directed attention to the salience of emotional intelligence among teachers and its influence on their physical and psychological health outcomes (e.g. Kang, Kim & Chung, 2016; Yin, 2015). The researcher, however, proposed that the emotional intelligence of public school teachers in the Western Cape Province has a significant positive influence on student-teacher relationships and interactions. She advocated that teachers, who have high emotional intelligence, would be more likely to cultivate positive student-teacher relationships and interactions. These teachers may develop encouraging and supportive relationships with

students, plan lessons that build on the strengths and abilities of students, and use behavioural guidelines that enhance the intrinsic motivation of students. This, in turn, promises to nurture the motivational, affective and behavioural characteristics of their students.

The researcher drew on Jennings and Greenberg's (2009) prosocial classroom model to offer a theoretical explanation of the above-mentioned proposition. The prosocial classroom model suggests that socially and emotionally competent teachers understand how students' emotions motivate their motivational, affective and behavioural characteristics. This enables them to demonstrate effective classroom management, as they can use emotional expression and verbal support to respond to the needs of students, promote enthusiasm and enjoyment among students, and guide and manage student behaviour.

Proposition 12: Emotional intelligence among public school teachers in the Western Cape Province has a significant positive influence on student-teacher relationships and interactions.

4.4.13. Student-teacher relationships and interactions and teaching motivation

Traditionally, researchers considered calling to be stable over time. Recent research has, however, directed attention to the dynamic model of calling, which suggests that calling is malleable. To take a case in point, a longitudinal study conducted by Dobrow (2013) among 450 amateur musicians in the United States of America showed support for this notion. Dobrow found that amateur musicians, who displayed behavioural involvement and social comfort in the domain of their calling (i.e. music), were more likely to feel called to pursue a career in music at the beginning of their career. These amateur musicians' sense of calling, however, decreased over time.

Based on the qualitative results and a review of the extant literature, the researcher argued that the dynamic model of calling could be applied to public school teachers in the Western Cape Province. She proposed that teachers either develop a deepening sense of ownership and understanding of their calling to pursue a career in teaching or lose sight of it. As their sense of ownership and understanding of their calling to pursue a career in teaching change, the quality of teaching and learning processes may be affected. The researcher suggested that it is, therefore, imperative to understand what influences teacher motivation.

During the initial and follow-up interviews participants, who developed a deepening sense of ownership and understanding of their calling to pursue a career in teaching, explained that they derive rewards from the activities involved in teaching, specifically the positive social components of their work (e.g. positive student-teacher relationships and interactions). These rewards validate their decision to pursue a career in teaching despite the demands that they encounter. Research has shown partial support for this notion. As mentioned in Chapter 2, a cross-sectional study conducted by Klassen et al. (2012) among 455 teachers from elementary, middle and high schools in Canada demonstrated that relatedness with students was positively related to workplace engagement and teaching enjoyment. Along the same lines, a qualitative study conducted by Hargreaves (2000) among 53 teachers from 15 elementary and high schools found that student-teacher relationships and interactions were a source of motivation and enjoyment among teachers.

In view of the above-mentioned results, the researcher suggested that the salience of student-teacher relationships and interactions should not be underestimated. Positive student-teacher relationships and interactions are a source of motivation and enjoyment among teachers, as it satisfies their need for relatedness and meaningfulness at work. This, in turn, validates their decision to pursue a career in teaching despite the demands that they encounter. Negative student-teacher relationships and interactions, on the other hand, are a source of disappointment, sadness and, in some instances, anger, as teachers' need for relatedness at work remains unmet. This, in turn, invalidates their decision to pursue a career in teaching. For this reason, she proposed that student-teacher relationships and interactions have a significant positive influence on teaching motivation (i.e. calling orientation) among public school teachers in the Western Cape Province.

The researcher drew on Ryan and Deci's (2000) social determination theory and Bowlby's (1969) attachment theory to offer a theoretical explanation of the above-mentioned proposition. The social determination theory suggests that individuals' motivation to carry out particular activities vary along a self-determination continuum, where intrinsic motivation and amotivation (i.e. lack of motivation) are extremes. Intrinsic motivation or the internalisation of self-determined forms of extrinsic motivation are determined by the satisfaction of three inherent psychological needs, namely autonomy (i.e. need to self-initiate and self-regulate own behaviour), competence (i.e. need to feel competent in achieving desired outcomes) and

relatedness (i.e. need to feel connected to other individuals). The satisfaction of these needs is a prerequisite for well-being and healthy development.

Along the same lines, the attachment theory suggests that an inherent psychological need motivates affectional bonding between two individuals. The psychological aim of developing an affectional bond between individuals and their attachment figure (e.g. student-teacher relationship) is to achieve or maintain emotional security (Bowlby, 1969).

Proposition 13: Student-teacher relationships and interactions have a significant positive influence on teaching motivation among public school teachers in the Western Cape Province.

4.4.14. Perceived workload and teaching motivation

In addition to Proposition 13, the researcher proposed that perceived workload has a significant negative influence on the teaching motivation (i.e. calling orientation) among public school teachers in the Western Cape Province. She advocated that teachers, who are routinely expected to perform unreasonable and unnecessary tasks, would be less likely to feel called to pursue a career in teaching. These work tasks send an implicit message of disrespect to teachers, which, in turn, invalidates their decision to pursue a career in teaching.

Teaching is considered to be a vocation (Roness, 2011). Teachers typically provide intrinsic or altruistic reasons for their decision to pursue a career in teaching (e.g. helping students or making a meaningful contribution to society) (Struyven, Jacobs & Dochy, 2013). Considering that intrinsic or altruistic reasons are typically the central motivational force behind teachers' decision to pursue a career in teaching, the researcher remarked that it is to be expected that unreasonable and unnecessary tasks, which detract from the core of teaching, may be experienced as burdens.

The researcher drew on Semmer, Jacobshagen, Meier and Elfering's (2007) Stress-as-Offense-to-Self (SOS) theory to offer a theoretical explanation of the above-mentioned proposition. The SOS theory is concentrated on the fact that all individuals strive to maintain a positive self-image (Sedikides & Strube, 1997). It suggests that any threat to individuals' self-image may incur stress. Similarly, any threat to employees' professional self-image may incur job stress. In accordance with this, Semmer et al. (2015) proposed that work tasks contain social messages for employees. Illegitimate tasks denote work tasks that violate the norms of what can

reasonably be expected from employees in a particular occupational role. These work tasks pose a threat to employees' professional self-image by sending an implicit message of disrespect.

Proposition 14: Perceived workload has a significant negative influence on teaching motivation among public school teachers in the Western Cape Province.

4.5. Summary

In Chapter 4, Part 2 of the qualitative phase was discussed. This part of the qualitative phase was intended to explore the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. theoretical coding). To achieve this objective, follow-up interviews were conducted with 28 teachers from fee schools (n = 14 (70 percent)) and no-fee schools (n = 14 (82 percent)).

Based on the information gathered during the follow-up interviews, the composite IRD (Table 4.2) and resultant SID were created to explain public school teachers in the Western Cape Province's experiences with the engagement phenomenon. Additionally, she also enquired about the stability of the perceived causal relationships (i.e. direction and intensity) and teachers' level of engagement (i.e. within-person variance) over time. This provided valuable insight into the complexity of the engagement phenomenon among teachers.

The researcher proposed that the affinities that were identified during the qualitative phase include latent variables that emanate from teachers themselves and those that emanate from the environment that surrounds them. This notion corresponds with Bronfenbrenner's (1977) ecological systems theory. It was, therefore, used as a conceptual framework to frame teacher-, school-, community- and societal-level determinants that explain variance in the engagement phenomenon among public school teachers in the Western Cape Province (Figure 4.3).

Based on the qualitative results and a review of the extant literature, the emerging structural model was presented (Figure 4.4). Four affinities were excluded from the emerging structural model in the interest of model parsimony (i.e. social context of the neighbourhood, parental attitudes, perceived organisational justice and school facilities and teaching resources). The

researcher was, however, confident that the exclusion of these affinities would not compromise the substantive meaningfulness of the emerging structural model.

In Chapters 5 and 6, the quantitative phase (i.e. Part 3) will be discussed. As opposed to the qualitative phase (i.e. Parts 1 and 2), the quantitative phase was predictive - not descriptive. It was aimed at evaluating the above-mentioned structural model quantitatively to verify exploratory results of the qualitative phase. This enabled the researcher to verify exploratory results concerning between-person variance in employee engagement and make generalisations to the broader population of public school teachers in the Western Cape Province.

CHAPTER 5: RESEARCH METHODOLOGY OF THE QUANTITATIVE PHASE (PART 3)

5.1. Introduction

In Chapter 5, the research methodology of the quantitative phase that was used to evaluate the emerging structural model quantitatively (i.e. Part 3) will be discussed. As mentioned in Chapter 1, the exploratory results concerning within-person variance in employee engagement were not subjected to quantitative data analyses due to foreseeable practical constraints. Only results concerning between-person variance in employee engagement among public school teachers in the Western Cape Province was verified using a cross-sectional approach based on a self-report web-based survey in the quantitative phase.

5.2. Introduction to the Quantitative Phase (Part 3)

The quantitative approach to research “tests a theory by specifying narrow hypotheses and the collection of data to support or refute the hypotheses” (Creswell, 2003, p. 16). In a mixed-methods exploratory sequential design (when preceded by a qualitative phase), the quantitative phase is used to test the theory that has been derived from the qualitative phase. In line with this, the quantitative phase of the study was used to evaluate the emerging structural model in order to verify exploratory results regarding between-person variance in employee engagement that were obtained during the qualitative phase (i.e. Parts 1 and 2) and make generalisations to the broader population of public school teachers in the Western Cape Province. Based on the quantitative results, human resource practices and interventions were identified that might be developed and implemented to foster employee engagement among public school teachers in the Western Cape Province. These interventions will be discussed in Chapter 7.

5.2.1. Research approach to the quantitative phase: Cross-sectional approach

The most common research approach to quantitative data collection is the cross-sectional approach based on self-report measures. In accordance with this, the researcher used a cross-sectional approach based on a self-report web-based survey, which participants completed independently, for the purpose of the quantitative phase. Although this research approach can

be used to collect data for higher order units of analysis (e.g. teams or organisations), individuals were the unit of analyses in the study. This enabled the researcher to perform statistical analyses on between-person differences that exist among public school teachers in the Western Cape Province.

The researcher acknowledges that the cross-sectional approach is not without limitations. The fundamental limitation associated with the cross-sectional approach is its somewhat static model of human behaviour. The researcher was, therefore, unable to conduct statistical analyses on within-person variance in employee engagement among public school teachers in the Western Cape Province in the quantitative phase.

Despite the above-mentioned limitation, the researcher was confident that the cross-sectional approach would still provide valuable insights into the engagement phenomenon. She did, however, recommend that future researchers should consider using research approaches that account for within-person variance in employee engagement (e.g. diary approach) to develop a comprehensive understanding of the dynamic nature of the causal relationships that were identified in the study (Ohly, Sonnentag, Niessen & Zapf, 2010).

5.2.2. Research setting of the quantitative phase

The quantitative phase of the study took place at public schools in the Western Cape Province. The Western Cape Province consists of eight education districts (i.e. Cape Winelands, Eden and Central Karoo, Metro Central, Metro East, Metro North, Metro South, Overberg and West Coast). Public schools from each of these education districts were included in the quantitative phase.

In accordance with the national quintile system (Henderson, 2016), the researcher distinguished between no-fee schools (i.e. quintiles 1 and 2) and fee schools (i.e. quintiles 4 and 5). In line with the qualitative phase of the study, public schools in quintile 3 from the quantitative phase.

5.2.3. Sampling design and participants of the quantitative phase

Sampling determines the extent to which researchers may generalise observations to the entire target population. Its purpose is to obtain a representative indication of the attitudes and opinions regarding phenomena that are reflective of the target population. According to Fowler (2013, p. 14), "How well a sample represents a population depends on the sample frame, the

sample size, and the specific design of selection procedures". Fowler explained that the above-mentioned details, as well as the response rate, are used to evaluate the representativeness of a sample. For this reason, the researcher carefully selected the sample frame, sample size and design of selection procedures of the quantitative phase.

The sample frame denotes the probability that members of the target population have to be selected as members of the sample population. From a statistical perspective, the sample population is only representative of the sample frame (Fowler, 2013). Most sampling approaches exclude at least a few members of the target population. One of the aspects that determine the sample frame is the inclusion criteria that researchers adopt. The researcher adopted inclusion criteria that were similar to the inclusion criteria used in the qualitative phase to delineate the sample frame in the quantitative phase. Only secondary school teachers, who had been teaching full-time for six months or more in a mainstream public school in the Western Cape Province, were selected as members of the sample population.

Another aspect that determines the sample frame is the method used to select the sample population. Researchers are often required to decide between an accessible or less expensive method of selecting the sample population (e.g. web-based surveys) and a more comprehensive, but expensive strategy (e.g. paper-and-pencil questionnaires). In consideration of foreseeable practical constraints associated with data collection (e.g. logistical and financial implications of distributing a paper-pencil questionnaire), a web-based survey was distributed among public school teachers in the Western Cape Province to gather primary data for the purpose of the quantitative phase. Although a web-based survey is not without limitations, the researcher directed attention to the advantages associated with this method (e.g. minimising interviewer bias and protecting the anonymity of participants) (Nicholls, Baker & Martin, 1997).

As Fowler (2013) mentioned, sample size also influences how well the sample population represents the target population. The quantitative approach to research highlights the importance of administering a psychometric test battery to a relatively large sample (depending on the number of instruments that have been included in the test battery) (Babbie & Mouton, 2001). Although disagreement exists about the general guidelines concerning sample size, researchers agree that it is more probable for larger samples to produce stable correlations between variables and display replicability of outcomes compared to smaller samples. The researcher, therefore, took reasonable steps to ensure that the sample size of the quantitative

phase was representative of the target population. There are approximately 1 458 mainstream public schools in the Western Cape Province (Department of Basic Education, 2013). She established contact with the principals of one hundred and fifty-two mainstream secondary public schools in the Western Cape Province (10.43 percent). Seventy-six principals agreed to participate in the quantitative phase (50 percent response rate).

The third aspect that influences the representativeness of the sample is the design of selection procedures. Once the researcher determined the sample frame and sample size of the quantitative phase, she considered how to select the sample population. As mentioned in Chapter 3, there are two distinct sampling designs, namely probability and non-probability sampling. Fowler (2013) remarked that probability sampling is an important criterion for the quality of empirical research using the cross-sectional approach based on self-report measures. In consideration of this, the researcher used a multi-stage sampling process in the quantitative phase to select a probability sample. More specifically, she used stratified simple random sampling.

Stratification is used to ensure that the sample population represents the characteristics of the target population. When using simple random sampling to select the sample population, these characteristics may or may not be represented (Fowler, 2013). The Western Cape Province consists of eight education districts (i.e. Cape Winelands, Eden and Central Karoo, Metro Central, Metro East, Metro North, Metro South, Overberg and West Coast). To ensure that each of the above-mentioned education districts was represented in the sample population, education districts were used to stratify the sample population. By implication, the researcher divided the target population into eight strata.

The researcher also intended to stratify the sample population in accordance with the national quintile system to ensure that fee schools (i.e. quintiles 4 and 5) and no-fee schools (i.e. quintiles 1 and 2) were represented in the sample population. However, she was unable to obtain access to the information that was required to stratify the sample population in accordance with the national quintile system. As a result, the distinction between fee schools and no-fee schools was only made after data collection had been completed.

Once the target population was divided into eight strata, the researcher used simple random sampling to select the sample population. Fowler (2013, p. 18) explained that, "Simple random sampling approximates drawing a sample out of a hat: Members of a population are selected

one at a time, independent of one another and without replacement; once a unit is selected, it has no further chance to be selected". The researcher made a numbered list of public schools in each stratum on a spreadsheet in Microsoft Excel and selected a simple random sample (of approximately 19 public schools) from each stratum by randomising the order of each list.

The researcher recognised that the above-mentioned selection procedures would lead to a form of statistical dependence known as clustering. Clustered data is typically generated when data can be classified into a number of clusters (Abe & Gee, 2014). To put it differently, clustering occurs when members of a sample population can be clustered into higher units of analysis. With reference to the context of the study, teachers are employed in a particular public school (i.e. school-level clustering). Each public school forms part of an education district (i.e. district-level clustering) and is classified as a fee school or a no-fee school in accordance with the national quintile system (i.e. quintile-level clustering).

The fundamental challenge associated with the analysis of clustered data is that observations within a cluster (i.e. school-, district- or quintile-level clustering) are not independent. The failure to account for within-cluster effects in the analysis of data may lead to the incorrect interpretation of associations between variables (Abe & Gee, 2014). To account for within-cluster effects associated with the hierarchical nature of the sample population, the researcher selected a simple random sample (of approximately 19 public schools) from each education district (or stratum) to participate in the quantitative phase. What is more, she took reasonable steps to ensure that a relatively large number of schools participated in the quantitative phase.

Zyzanski, Flocke and Dickinson (2004) pointed out that researchers often overlook the unique opportunities inherent to clustered data. The researcher supported this notion. Even though she was unable to explore the causal relationships that exist among the latent variables at multiple levels (i.e. group-specific and global tendencies) in the quantitative phase, the researcher anticipated that the appropriate analysis of clustered data would yield valuable insights into the engagement phenomenon. Specifically, insights in terms of group-specific, as well as global, tendencies that must be taken into consideration during the development and implementation of human resource practices and interventions to foster employee engagement among all public school teachers.

5.2.4. Ethical considerations of the quantitative phase

The researcher carefully considered any potential ethical risks that were associated with the quantitative phase and whether the purpose of the study justified any compromises that were made in this regard (Engelbrecht, 2012).

There were no serious ethical risks or discomfort associated with participation in the quantitative phase, apart from the time spent completing the self-report web-based survey (approximately 20 minutes). Part 3 did not impose on the dignity, rights, safety or well-being of participants. The researcher dealt with any potential ethical risks in accordance with the *Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act No. 56 of 1974)* (Department of Health, 2006).

The quantitative phase commenced once the Western Cape Department of Education approved it and the DESC and the REC: Human Research (Humanities) of Stellenbosch University ethically cleared it.

Participation in the quantitative phase was voluntary. Participating public schools and teachers were able to withdraw at any time without being subjected to any harmful consequences.

The researcher obtained institutional permission from the principals of participating public schools before distributing the web-based survey. Principals were asked to complete the institutional permission form. This document offered a detailed explanation of the study and the nature of participation in the quantitative phase (i.e. research purpose, data collection procedure, benefits, potential risks and discomforts, compensation, confidentiality and anonymity, participation and withdrawal and rights of participants). Principals were afforded the opportunity and encouraged to ask questions and raise concerns regarding the participation of their school. The institutional permission form was in English. Supplementary telephonic correspondence was in either English or Afrikaans, depending on their preference.

Informed consent was obtained from participants. Teachers, who were interested in participating in the study, were asked to open the link to the web-based survey in their internet browser. Teachers, who opened the link, were presented with the informed consent form. The informed consent form offered a detailed explanation of the study and the nature of participation in the quantitative phase. Participants were encouraged to contact the researcher if they had any questions or concerns regarding their participation. Teachers were required to

complete the informed consent form before the commencement of the web-based survey. The informed consent form was in English. Supplementary telephonic correspondence was in either English or Afrikaans, depending on their preference.

Participants completed the self-report web-based survey at a time and place that was comfortable and convenient for them. This prevented any interference with time spent teaching. Participants were not forced to respond to each question in the web-based survey.

The researcher did not offer participants any inappropriate or excessive financial or other inducements for their participation in the quantitative phase. With their consent, participants were eligible for ten cash prizes. The value of cash prizes were R 2 000 (1), R 1 000 (3) and R 500 (6). A random selection process determined the winners of the cash prizes. The principals of participating public schools did not receive any form of financial or other inducements for their participation in the quantitative phase. The researcher undertook to make composite results available to principals in a feedback report.

Participants were assured of anonymity. Participants, who completed the web-based survey and gave their consent to be eligible for cash prizes, were asked to provide their email address in a separate web-based survey²⁷. This protected participants' right to anonymity by ensuring that their personal data (i.e. email address) could not be linked to their responses.

Participants were assured of confidentiality. The personally identifiable information (i.e. email address) obtained in connection with the quantitative phase remained strictly confidential. It was not disclosed to participants' principals, other teachers, students or the parents of students. Only the researcher had access to this information. She captured it on a spreadsheet in Microsoft Excel and stored it in a password-protected format on her personal computer. Once the winners of cash prizes were determined, the researcher deleted the list of email addresses. No further personally identifiable information was obtained in connection with the quantitative phase.

It was explained to principals and teachers that the information obtained in connection with the quantitative phase was to be used for research purposes and that the study was intended for a doctoral thesis in Industrial Psychology. A published copy of the thesis will be made available

²⁷ Winners of cash prizes were notified by email. Participants, who gave their consent to be eligible for cash prizes, were, therefore, asked to provide their email address.

on SunScholar for academic purposes. The names of participating public schools will not be published. In the event that results are published in academic journals or presented at conferences, the same measures will be used to protect their right to anonymity.

None of the instruments that were used in the quantitative phase was classified as psychological tests in terms of the *Health Professions Act (Act No. 56 of 1974)* (Department of Health, 2006). All the instruments were available in the public domain.

5.3. Evaluation of the Emerging Structural Model (Part 3)

When using the cross-sectional approach based on self-report measures, researchers must decide how data will be collected. Kerlinger and Lee (2000) mentioned that there are various forms of self-report measures, ranging from a paper-and-pencil questionnaire to a web-based survey. The researcher decided to distribute a web-based survey among public school teachers in the Western Cape Province to gather primary data for the purpose of the quantitative phase. This decision was informed by foreseeable practical constraints associated with data collection (e.g. logistical and financial implications of distributing a paper-pencil questionnaire).

The researcher established contact with the principals of selected public schools telephonically. During the telephonic discussion, she introduced herself and provided a brief explanation of the study and the nature of participation in the quantitative phase. Thereafter, principals received a follow-up email that comprised of the formal letter of proposal and the institutional permission form.

The researcher distributed the above-mentioned documents by email, as it was less probable that principals would feel pressurised to participate in the quantitative phase of the study. This approach respected their right to make an informed decision about the participation of their school, without any external influence. Principals, who expressed an interest in participating in the quantitative phase, were asked to return a signed copy of the institutional permission form by email.

Following this, the researcher sent two emails to the principals or secretaries of participating public schools, depending on their preference. The first email was addressed to teachers. This email contained a brief description of participation in the quantitative phase and a link to the web-based survey. The second email was addressed to principals or secretaries. This email contained instructions regarding the distribution of the web-based survey. Principals or

secretaries were asked to send the first email to all the teachers who were employed at their school at that point in time. Teachers were given five working days (i.e. Monday through Friday) to participate in the quantitative phase. Principals or secretaries were asked to remind teachers to participate in the quantitative phase once during the five-day period.

Pilot study results indicated that the self-report web-based survey took approximately 20 minutes to complete.

5.3.1. Research objective of the quantitative phase

Part 3 was intended to evaluate the emerging structural model quantitatively, making specific reference to contextual, organisational, job and individual antecedents that explain between-person variance in employee engagement among public school teachers in the Western Cape Province. To put it differently, it was intended to evaluate the propositions (i.e. Propositions 1 through 14) that were formulated based on a review of the extant literature and the relational dynamics that were identified among the most salient antecedents that explain variance in employee engagement among public school teachers in the Western Cape Province (i.e. Parts 1 and 2).

5.3.2. Demographic and employment information of participants

As mentioned, the researcher established contact with the principals of one hundred and fifty-two mainstream secondary public schools in the Western Cape Province (10.43 percent). Seventy-six principals agreed to participate in the quantitative phase (50 percent response rate). The web-based survey was, therefore, distributed among teachers ($n =$ approximately 1 824) employed in 76 public schools.

Five hundred and fifteen teachers responded to the web-based survey. After the deletion of incomplete responses ($n = 165$), the realised sample comprised of 353 teachers from fee schools ($n = 321$ (91 percent)) and no-fee schools ($n = 31$ (9 percent))²⁸. The response rate was 19 percent.

²⁸ As mentioned, participants were not forced to respond to each question in the web-based survey. The demographic and employment information of participants in the quantitative phase is, therefore, presented based on the responses obtained.

Table 5.1 depicts the demographic and employment information of participants in Part 3.

Table 5.1

Frequency distribution: Demographic and employment information (Part 3)

Description	Category	Frequency
Race	African	19
	Coloured	59
	White	272
	Missing values	3
Gender	Female	222
	Male	131
	Missing values	0
Tenure	≤ 5 years	93
	6 - 15 years	106
	16 - 25 years	49
	≥ 26 years	102
	Missing values	3
Job title	Class teacher	240
	Head of department	47
	Other positions	65
	Missing values	1
Highest level of educational attainment	Bachelor's degree in education	110
	Postgraduate diploma in education	102
	Honours degree	67
	Master's degree	30
	Other qualifications	42
	Missing values	2

Table 5.1 shows that the majority of the sample comprised of white participants ($n = 272$ (77 percent)) in Part 3. Fifty-nine participants (17 percent) were coloured, and 19 participants (5 percent) were African.

Table 5.1 also indicates that the majority of the sample comprised of female participants ($n = 222$ (63 percent)) in Part 3. One hundred and thirty-one participants (37 percent) were male.

Table 5.1 shows that the tenure of the majority of the sample was between six and 15 years ($n = 106$ (30 percent)) in Part 3. The tenure of the remaining participants was either equal to or less than five years ($n = 93$ (26 percent)), between 16 and 25 years ($n = 49$ (14 percent)) or equal to or more than 26 years ($n = 102$ (29 percent)).

Table 5.1 also indicates that the majority of the sample was appointed as class teachers ($n = 240$ (68 percent)) in Part 3. The remaining participants were appointed as heads of departments ($n = 47$ (13 percent)) or in other positions ($n = 65$ (18 percent)).

Table 5.1 shows that the highest level of educational attainment of the majority of the sample was a bachelor's degree in education ($n = 110$ (31 percent)) in Part 3. The highest level of educational attainment of the remaining participants was either a postgraduate diploma in education ($n = 102$ (29 percent)), honours degree ($n = 67$ (19 percent)) or master's degree ($n = 30$ (9 percent)). Forty-two participants had other qualifications (12 percent).

Before proceeding to discuss the quantitative results, the researcher suggested that it was important to address two issues concerning the data gathered during the quantitative phase.

The first issue relates to the distinction between fee schools and no-fee schools. Although the researcher intended to compare the results obtained from fee schools and no-fee schools in order to identify group-specific, as well as global, tendencies that must be taken into consideration during the development and implementation of human resource practices and interventions to foster employee engagement among all public school teachers, she was unable to perform such an analysis (i.e. Multi-Group Structural Equation Modelling (MSEM)). As demonstrated by the above-mentioned demographic and employment information of participants, the majority of the participants were employed in fee schools ($n = 321$ (91 percent)). A comparison between fee schools and no-fee schools was, therefore, not possible in Part 3. She recommended that future research is required to address this limitation.

The second issue that the researcher would like to address pertains to the response rate of the quantitative phase. As mentioned, the response rate was 19 percent. While this response rate may engender concern at first glance, the researcher suggested that it is satisfactory within the context of the study. As Nulty (2008) remarked, in some instances, assertions concerning the adequacy of response rates are made without reference to any theoretical justification. Nulty advised that various matters must be taken into account when deciding whether it is valid to extrapolate findings. The researcher supported this notion.

As an example, different types of administration yield different response rates. Yun and Trumbo (2000) pointed out that response rates to self-report web-based surveys have decreased significantly since the late 1980s. Yun and his colleague reported that response rates to self-report web-based surveys typically vary from 25 percent to 30 percent, without follow-up

reinforcements. Comparable results have been reported by Dommeyer, Baum, Hanna, and Chapman (2004) and Nulty (2008). Yun and Trumbo's (2000) findings can be used to offer an explanation for the response rate of the quantitative phase.

Nulty (2008) recommended several strategies that researchers may use to increase response rates. These approaches range from offering participants incentives in the form of prizes to sending participants reminders. In acknowledgement of the above-mentioned studies, which have shown that self-report web-based surveys typically yield low response rates, the researcher offered participants incentives in the form of ten cash prizes. What is more, she asked the principals or secretaries to remind teachers to participate in the quantitative phase once during the five-day period. The response rate, however, remained low. This may negatively affect the representativeness of the realised sample and, in turn, the validity of the results obtained during the quantitative phase. The results obtained during the quantitative phase should be interpreted in light of this limitation.

The researcher anticipates that restricted access to a secure and stable internet connection and computer facilities in some participating public schools may also have negatively influenced the response rate of the quantitative phase. She recommends that future researchers should consider using a paper-and-pencil questionnaire to collect data among public school teachers, as opposed to a web-based survey, in order to yield a higher response rate. Research has shown some support for this notion. For example, a cross-sectional study conducted by Redelinghuys, Rothmann and Botha (2018) among secondary school teachers in the Gauteng Province obtained a response rate of approximately 32 percent using a paper-and-pencil questionnaire.

5.3.3. Web-based survey of the quantitative phase

The self-report web-based survey consisted of two sections. The first section gathered the demographic (e.g. age and gender) and employment information (e.g. job title and tenure) of participants in order to describe the sample. The second section comprised of valid and reliable instruments that were used to capture the characteristics of public school teachers in the Western Cape Province and their work environment. The instruments were selected based on the affinities that were identified during Part 1 of the qualitative phase.

5.3.3.1. *Utrecht Work Engagement Scale*

Employee engagement was assessed using the UWES-9 (Schaufeli et al., 2006).

Even though there is an ongoing debate on how to define and measure employee engagement (Saks & Gruman, 2014), the three-factor model that was introduced by Schaufeli et al. (2002) has become the most influential and commonly used paradigm. As mentioned in Chapter 2, the researcher adopted this paradigm in the study.

The three-factor model suggests that employee engagement is a higher order construct, which consists of three dimensions, namely vigour, dedication and absorption. These dimensions are operationalised in the UWES-9 and assessed by its subscales.

Schaufeli and Bakker (2003) introduced the UWES-17 (17 items). Following this, Schaufeli et al. (2006) proposed the UWES-9 (9 items). Research has shown that the shortened version of the UWES explains 80 percent of variance in the UWES-17 (Mills, Culbertson & Fullagar, 2012) and is more stable over time (Seppälä et al., 2015). In consideration of this, the researcher decided to use the UWES-9 to assess vigour (three items; “When I get up in the morning I feel like going to work”), dedication (three items; “I am enthusiastic about my job”) and absorption (three items; “I am immersed in my work”) among public school teachers in the Western Cape Province. Items were assessed by using a seven-point Likert scale with response options ranging from zero (never) to six (always). None of the items was reverse scored.

Even though critical comments have been voiced concerning the methodology that was used to develop the UWES-9 (e.g. Mills et al., 2012), Schaufeli et al. (2006) reported that the reliability coefficients of the UWES-9 and each of its subscales were mostly satisfactory ($\alpha > .70$) across ten countries (i.e. Australia, Belgium, Canada, Finland, France, Germany, the Netherlands, Norway, South Africa and Spain). Schaufeli and his colleagues reported that the reliability coefficient of the UWES-9 varied between .85 and .92. In addition, they revealed reliability coefficients ranging from .60 to .88 for the vigour subscale, .75 to .90 for the dedication subscale and .66 to .86 for the absorption subscale. Schaufeli et al. (2006) also demonstrated that the three-factor structure of the UWES-9 fitted the data well, and evidence of criterion validity (i.e. concurrent validity) was provided. Schaufeli and his colleagues specifically showed that the UWES-9 was related to the UWES-17.

The UWES-9 has been used in South Africa with satisfactory results (e.g. Schaufeli et al., 2006; Van Der Westhuizen, 2014).

5.3.3.2. *Calling and Vocation Questionnaire*

Teaching motivation was assessed using the Calling and Vocation Questionnaire (Dik, Eldridge, Steger & Duffy, 2012).

The majority of instruments that are used to assess calling have been developed on an ad hoc basis in accordance with the needs of specific studies. Measurement strategies range from categorising participants into different work orientations (i.e. career, calling or job orientation) (e.g. Wrzesniewski et al., 1997) to developing scales for specific occupational groups (e.g. Bunderson & Thompson, 2009). However, these measurement strategies are not without limitations. The categorisation of participants into different work orientations may restrict researchers' ability to assess variance in terms of calling, while instruments that have been developed for specific occupational groups may not be useful in other samples. To address such limitations, Dik et al. (2012) introduced the Calling and Vocation Questionnaire based on Dik and Duffy's (2009) definition of calling. As mentioned in Chapter 3, the researcher adopted their definition of calling in the study.

Dik and Duffy's (2009) definition suggests that calling is a higher order construct, which consists of three dimensions, namely transcendence summons, purposeful work and prosocial orientation. These dimensions are operationalised in the Calling and Vocation Questionnaire and assessed by its subscales.

The Calling and Vocation Questionnaire consists of two primary subscales, namely the presence of calling and the search for calling. Each primary subscale consists of three secondary subscales (i.e. transcendence summons, purposeful work and prosocial orientation). Only the presence of calling primary subscale, which consists of the presence of transcendence summons (four items; "I believe that I have been called to my current line of work"), purposeful work (four items; "My work helps me live out my life's purpose") and prosocial orientation (four items; "Making a difference for others is the primary motivation in my career") secondary subscales, was used to assess teaching motivation among public school teachers in the Western Cape Province. This decision was informed by the fact that the researcher wanted to examine the role of positive attributes and strengths (i.e. personal resources) in the study, in accordance with the principles of the positive psychology approach (Seligman & Csikszentmihalyi, 2000).

Items were assessed by using a four-point Likert scale with response options ranging from one (not at all true of me) to four (absolutely true of me). One item was reverse scored.

Dik et al. (2012) reported that the reliability coefficients of the primary, as well as the secondary, subscales of the Calling and Vocation Questionnaire were satisfactory ($\alpha > .70$). Dik and his colleagues reported that the reliability coefficient of the presence of calling primary subscale was .90 and of the search of calling primary subscale was .91. In addition, they revealed that the reliability coefficients of the secondary subscales varied between .85 and .92. Dik et al. (2012) also demonstrated that the two-factor structure of the Calling and Vocation Questionnaire fitted the data well, and evidence of construct validity (i.e. convergent validity and discriminant validity) was provided. Dik and his colleagues specifically showed that the presence of calling primary subscale was related to career decision self-efficacy, extrinsic work motivation, intrinsic work motivation and life satisfaction.

The Calling and Vocation Questionnaire, specifically the presence of calling primary subscale, has been used in South Africa with satisfactory results (e.g. Willemse & Deacon, 2015).

5.3.3.3. *PsyCap Questionnaire*

Psychological capital was assessed using the PsyCap Questionnaire (Luthans et al., 2007).

As mentioned in Chapter 2, psychological capital is a higher order construct that consists of four dimensions, namely optimism, self-efficacy, resilience and hope. These dimensions are operationalised in the PsyCap Questionnaire and assessed by its subscales. With consultation and input from their colleagues, Luthans et al. (2007) selected valid and reliable instruments that had relevance to the workplace for optimism (Scheier & Carver, 1985), self-efficacy (Parker, 1998), resilience (Wagnild & Young, 1993) and hope (Snyder et al., 1996) to develop items for the PsyCap Questionnaire.

The PsyCap Questionnaire consists of 24 items and was used to assess optimism (six items; “I am optimistic about what will happen to me in the future as it pertains to my work”), self-efficacy (six items; “I feel confident representing my work area in meetings with management”), resilience (six items; “I usually take stressful things at work in my stride”) and hope (six items; “At the present time I am energetically pursuing my goals”) among public school teachers in the Western Cape Province. Items were assessed by using a six-point Likert

scale with response options ranging from one (strongly disagree) to six (strongly agree). Three items were reverse scored.

Luthans et al. (2007) reported that the reliability coefficients of the PsyCap Questionnaire and each of its subscales were mostly satisfactory ($\alpha > .70$) across four samples. Luthans and his colleagues reported that the reliability coefficient of the PsyCap Questionnaire varied between .88 and .89. In addition, they revealed reliability coefficients ranging from .72 to .80 for the hope subscale, .66 to .71 for the resilience subscale, .75 to .85 for the self-efficacy subscale and .69 to .79 for the optimism subscale. Luthans et al. (2007) also demonstrated that the four-factor structure of the PsyCap Questionnaire fitted the data well, and evidence of construct validity (i.e. discriminant validity), as well as criterion validity (i.e. predictive validity) with job satisfaction, was provided.

The PsyCap Questionnaire has been used in South Africa with satisfactory results (e.g. Görgens-Ekermans & Herbert, 2013; Shaik & Buitendach, 2015).

5.3.3.4. *Work Locus of Control Scale*

Work locus of control was assessed using the Work Locus of Control Scale (Spector, 1988).

As mentioned in Chapter 2, work locus of control is a higher order construct that consists of two dimensions, namely internal work locus of control and external work locus of control. Although Rotter's (1966) Internal-External Control Scale was initially used to assess locus of control, the majority of researchers use modified versions of this scale to assess domain-specific conceptualisations of locus of control. Similarly, the researcher decided to use Spector's (1988) Work Locus of Control Scale, as the above-mentioned dimensions of work locus of control are operationalised in this instrument and assessed by its subscales. Spector (1988) performed a conceptual analysis of the locus of control construct and its association with work behaviour in order to develop items for the Work Locus of Control Scale.

As mentioned, the Work Locus of Control Scale consists of two subscales, namely internal work locus of control and external work locus of control. Only the internal work locus of control subscale (eight items; “On most jobs, people can pretty much accomplish whatever they set out to accomplish”) was used to assess work locus of control among public school teachers in the Western Cape Province. This decision was informed by the fact that the researcher wanted to examine the role of positive attributes and strengths (i.e. personal

resources) in the study, in accordance with the principles of the positive psychology approach (Seligman & Csikszentmihalyi, 2000). Items were assessed by using a six-point Likert scale with response options ranging from one (disagree very much) to six (agree very much). None of the items was reverse scored.

Spector (1988) reported that the reliability coefficient of the Work Locus of Control Scale was satisfactory ($\alpha > .70$) across six samples. He reported that the reliability coefficient of the Work Locus of Control Scale varied between .75 and .85. Spector (1988) also demonstrated evidence of the Work Locus of Control Scale's criterion validity (i.e. predictive validity). He specifically showed that the internal work locus of control subscale was related to intention of quitting, job satisfaction, perceived influence at work, perceptions of supervisory style and role stress.

The Work Locus of Control Scale, specifically the internal work locus of control subscale, has been used in South Africa with satisfactory results (e.g. Pienaar & De Witte, 2016; Shaik & Buitendach, 2015).

5.3.3.5. *Genos Emotional Intelligence Inventory*

Emotional intelligence was assessed using the Genos Emotional Intelligence Inventory (Palmer et al., 2009).

There are various instruments that can be used to assess emotional intelligence, such as the Self-Report Emotional Intelligence Test (SREIT) (Schutte et al., 1998), the Emotional Quotient Inventory (EQ-i) (Bar-On, 1997) and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Mayer, Salovey & Caruso, 2002). The researcher decided to use the Genos Emotional Intelligence Inventory (Palmer et al., 2009) to assess how often public school teachers demonstrate emotionally intelligent behaviour at their school.

The Genos Emotional Intelligence Inventory was initially introduced as the Swinburne University Emotional Intelligence Test (SUEIT) (Palmer & Stough, 2001). It was designed as an aid for human resource officers and industrial and organisational psychologists that are involved in the recruitment, selection and development of employees.

The Genos Emotional Intelligence Inventory consists of seven subscales, namely emotional self-awareness (“I am aware of how my feelings influence the decisions I make at work”), emotional expression (“When someone upsets me at work I express how I feel effectively”),

emotional awareness of others (“I understand the things that make people feel optimistic at work”), emotional reasoning (“I demonstrate to others that I have considered their feelings in decisions I make at work”), emotional self-management (“I appropriately respond to colleagues who frustrate me at work”), emotional management of others (“I am effective in helping others feel positive at work”) and emotional self-control (“When upset at work I still think clearly”). The extended version of the Genos Emotional Intelligence Inventory consists of 70 items. The researcher used the shortened version of the Genos Emotional Intelligence Inventory, which consists of 14 items, in the study. This version of the Genos Emotional Intelligence Inventory is not divided into subscales. Items were assessed by using a five-point Likert scale with response options ranging from one (almost never) to five (almost always). Six items were reverse scored.

Palmer et al. (2009) reported that the reliability coefficients of the extended, as well as the shortened, version of the Genos Emotional Intelligence Inventory were satisfactory ($\alpha > .70$). Palmer and his colleagues reported that the reliability coefficient of the extended version of the Genos Emotional Intelligence Inventory was .96 and of the shortened version of the Genos Emotional Intelligence Inventory was .87. Palmer et al. (2009) also demonstrated evidence of construct validity (i.e. discriminant validity), as well as criterion validity (i.e. concurrent validity and predictive validity). Palmer and his colleagues specifically showed that the Genos Emotional Intelligence Inventory was related to organisational commitment, transformational leadership and the SUEIT (Palmer & Stough, 2001).

The extended version of the Genos Emotional Intelligence Inventory has been used in South Africa by Gignac and Ekermans (2010). Gignac and his colleague reported that the reliability coefficients of the extended version of the Genos Emotional Intelligence Inventory were satisfactory and relatively similar across African and White South Africans. However, based on differential item functioning analyses, Gignac and Ekermans (2010) concluded that three of its items are biased. None of these items is included in the shortened version of the Genos Emotional Intelligence Inventory that was used in the study. Nonetheless, the researcher undertook to interpret participants’ responses with care.

5.3.3.6. *COPE Questionnaire*

Coping strategies were assessed using a revised version of the COPE Questionnaire (Carver et al., 1989).

The COPE Questionnaire was introduced by Carver et al. (1989). This instrument consists of 53 items that are used to assess 13 coping strategies. As mentioned in Chapter 3, Pienaar and Rothmann (2003) directed attention to its underlying four-factor structure. Based on PCA with varimax rotation, Pienaar and his colleague concluded that the COPE Questionnaire consists of four internally consistent factors. These factors are approach coping, seeking emotional support, turning to religion and avoidance coping. Mostert and Joubert (2005) reported comparable results. In accordance with Pienaar and Rothmann (2003) and Mostert and Joubert (2005), the researcher adopted the underlying four-factor structure of the COPE Questionnaire in the study. However, only items that are subsumed under the active coping²⁹ (20 items; “I do what has to be done, one step at a time”), seeking emotional support (four items; “I talk to someone about how I feel”) and turning to religion (four items; “I put my trust in God”) dimensions were used to assess coping strategies among public school teachers in the Western Cape Province. Items that are subsumed under the avoidance coping dimension were excluded from the web-based survey. This decision was informed by the fact that the researcher wanted to examine the role of positive attributes and strengths (i.e. engagement coping) in the study, in accordance with the principles of the positive psychology approach (Seligman & Csikszentmihalyi, 2000). Items were assessed by using a four-point Likert scale with response options ranging from one (I usually don't do this at all) to four (I usually do this a lot). None of the items was reverse scored.

Pienaar and Rothmann (2003) and Mostert and Joubert (2005) reported that the reliability coefficients of each of the above-mentioned dimensions were satisfactory in South Africa ($\alpha > .70$). Pienaar and Rothmann (2003) reported that the reliability coefficient of the approach coping subscale was .92, of the turning to religion subscale was .83, of the seeking emotional support subscale was .80 and of the avoidance coping subscale was .86. Similarly, Mostert and Joubert (2005) revealed that the reliability coefficient of the active coping subscale was .90, of the turning to religion subscale was .87, of the seeking emotional support subscale was .85 and

²⁹ As mentioned in Chapter 3, Mostert and Joubert (2005) referred to active coping in order to describe Pienaar and Rothmann's (2003) internally consistent factor of approach coping.

of the avoidance coping subscale was .80. Pienaar and Rothmann (2003) and Mostert and Joubert (2005) also demonstrated that the proposed four-factor structure of the COPE Questionnaire fitted the data well.

5.3.3.7. Bern Illegitimate Tasks Scale

Perceived workload was assessed using the Bern Illegitimate Tasks Scale (Jacobshagen, 2006).

Jacobshagen (2006) developed the Bern Illegitimate Tasks Scale in response to contemporary research that highlighted the salience of illegitimate tasks. As mentioned in Chapter 3, illegitimate tasks is a higher order construct that consists of two dimensions, namely unreasonable tasks and unnecessary tasks. These dimensions are operationalised in the Bern Illegitimate Tasks Scale and assessed by its subscales.

The Bern Illegitimate Tasks Scale that was developed by Jacobshagen (2006) consists of nine items and was used to assess unreasonable tasks (four items; “I have work tasks to take care of, which I believe put me into an awkward position”) and unnecessary tasks (five items; “I have work tasks to take care of, which keep me wondering if they have to be done at all”) among public school teachers in the Western Cape Province. Items were assessed by using a five-point Likert scale with response options ranging from one (never) to five (frequently). None of the items was reverse scored.

The researcher acknowledges that an item in the unnecessary tasks subscale (“I have work tasks to take care of, which keep me wondering if they would not exist (or could be done with less effort), if some other people made less mistakes”) is typically excluded from the Bern Illegitimate Tasks Scale (e.g. Semmer et al., 2010; Vermaak, 2016). In these instances, the Bern Illegitimate Tasks Scale consists of eight items (i.e. unreasonable tasks: four items; unnecessary tasks: four items). Even though Jacobshagen (2006, p. 79) reported a lower factor loading for this item, based on the results obtained from additional analyses she concluded that “its removal did not result in an overall better fit of the model”. In accordance with this, the researcher decided to retain this item in the study.

Jacobshagen (2006) reported that the reliability coefficients of the Bern Illegitimate Tasks Scale and each of its subscales were satisfactory ($\alpha > .70$) across seven samples (i.e. associates, information technology specialists, diverse professions, junior managers and public service). She reported that the reliability coefficient of the Bern Illegitimate Tasks Scale varied between

.78 and .88. In addition, Jacobshagen revealed reliability coefficients ranging from .74 to .84 for the unreasonable tasks subscale and .76 to .85 for the unnecessary tasks subscale. She also demonstrated that the two-factor structure of the Bern Illegitimate Tasks Scale fitted the data well, and evidence of criterion validity (i.e. concurrent validity) was provided. Jacobshagen specifically showed that the Bern Illegitimate Tasks Scale was related to a number of constructs, including feelings of exhaustion, irritation and resentment.

The eight-item version of the Bern Illegitimate Tasks Scale has been used in South Africa with satisfactory results (e.g. Abrahams, 2014; Vermaak, 2016). The researcher was, however, unable to identify research that used the nine-item version of the Bern Illegitimate Tasks Scale in South Africa. In consideration of this, she undertook to interpret participants' responses with care.

5.3.3.8. *Organisational Climate Index*

School climate was assessed using the Organisational Climate Index (Hoy, Smith & Sweetland, 2002).

As mentioned in Chapter 3, disagreement exists throughout literature about the definition, dimensions and unit of analysis (e.g. parents, students or teachers) of school climate. It is, therefore, to be expected that the organisational climate of schools has been conceived and measured in a number of ways. While most researchers have focussed on the assessment of organisational climate in elementary schools, Hoy et al. (2002) extended the concept to high schools through the introduction of the Organisational Climate Index.

The development of the Organisational Climate Index involved several phases, ranging from the developing a conceptual framework to evaluating the reliability of each dimension. Hoy et al. (2002) drew on existing instruments, including the Organisational Climate Descriptive Questionnaire (OCDQ) (Halpin & Croft, 1963) and the Organisational Health Inventory (OHI) (Hoy & Tarter, 1997), to develop items for the Organisational Climate Index.

The Organisational Climate Index consists of 27 items that are used to assess the four dimensions of school climate, namely institutional vulnerability, collegial leadership, professional teacher behaviour and achievement press. Only the collegial leadership (seven items; "The principal is friendly and approachable") and professional teacher behaviour (seven items; "Teachers help and support each other") subscales were used to assess organisational

climate among public school teachers in the Western Cape Province. This decision was informed by the results obtained during Part 2 of the qualitative phase. As mentioned, participants from both constituencies listed ideas and concepts that relate to collegial leadership and teacher professionalism. Items were assessed by using a five-point Likert scale with response options ranging from one (strongly disagree) to five (strongly agree). None of the items was reverse scored.

Hoy et al. (2002) reported that the reliability coefficients of the subscales of the Organisational Climate Index were satisfactory ($\alpha > .70$). Hoy and his colleagues reported that the reliability coefficient of the institutional vulnerability subscale was .87, of the collegial leadership subscale was .94, of the professional teacher behaviour subscale was .88 and of the achievement press subscale was .92. Hoy et al. (2002) also demonstrated that the four-factor structure of the Organisational Climate Index fitted the data well, and evidence of construct validity, as well as criterion validity (i.e. predictive validity), was provided. Hoy and his colleagues specifically showed that the Organisational Climate Index was related to aspects of faculty trust.

The Organisational Climate Index, specifically the collegial leadership and professional teacher behaviour subscales, has been used in South Africa with satisfactory results (e.g. Milner & Khoza, 2008).

5.3.3.9. School Ethical Climate Index

Student-teacher relationships and interactions were assessed using the School Ethical Climate Index (Schulte et al., 2002).

The majority of instruments that can be used to assess student-teacher relationships and interactions are designed for teachers' relationships and interactions with younger students from preschool to Grade 3 (e.g. Pianta & Stuhlman, 2004). Researchers typically measure students' perception of relationships and interactions with teachers among older students (e.g. Murray & Greenberg, 2001). In response to the fact that there are limited instruments that can be used to assess teachers' perception of relationships and interactions with older students, Schulte et al. (2002) introduced the School Ethical Climate Index.

The development of the School Ethical Climate Index involved several phases, ranging from the item development to checking the reliability of each dimension. Schulte et al. (2002)

reworded and adapted items from the Ethical Climate Index for graduate and professional school programmes (Schulte, Brown & Wise, 1991) to apply to middle and high schools for the purpose of the School Ethical Climate Index.

The School Ethical Climate Index consists of 54 items that are used to assess three dimensions, namely student-to-teacher interactions, student-to-student interactions and teacher-to-student interactions. Only the student-to-teacher subscale (9 items; “Students are respectful to teachers”) was used to assess student-teacher relationships and interactions among public school teachers in the Western Cape Province. This decision was informed by the fact that the items subsumed under the student-to-teacher subscale assess the nature of teachers’ interpersonal relationships and interactions with their students. Items were assessed by using a five-point Likert scale with response options ranging from one (rarely or never true) to five (usually or always true). None of the items was reverse scored.

Schulte et al. (2002) reported that the reliability coefficients of the subscales of the School Ethical Climate Index were satisfactory ($\alpha > .70$). Schulte and her colleagues reported that the reliability coefficient of the student-to-teacher subscale was .86, of the student-to-student subscale was .89, and of the teacher-to-student subscale was .95. Schulte et al. (2002) also demonstrated that the three-factor structure of the School Ethical Climate Index fitted the data well, and evidence of construct validity, as well as content validity, was provided.

The researcher was unable to identify research that used the School Ethical Climate Index, specifically student-to-teacher subscale, in South Africa. In consideration of this, she undertook to interpret participants’ responses with care.

5.3.4. Data cleaning and analysis of the quantitative phase

The researcher used PLS to analyse data gathered in the quantitative phase. Before proceeding to verify exploratory results concerning between-person variance in employee engagement that were obtained during the qualitative phase (i.e. Parts 1 and 2) and make generalisations to the broader population of public school teachers in the Western Cape Province, the researcher dealt with missing values. Following this, she determined whether the latent variable scales that were used in the self-report web-based survey were valid and reliable (i.e. item analysis, CFA and EFA). Once the researcher determined that the instruments were valid and reliable, she proceeded to perform PLS.

5.3.4.1. *Missing Values*

Irrespective of the precautions researchers take to ensure that participants respond to all the items of self-report measures, missing values are a common occurrence in multivariate datasets (Du Toit & Mels, 2002). In an attempt to minimise this problem, the written instructions encouraged participants to respond to all the items that were included in the web-based survey. Nonetheless, the researcher anticipated that missing values would occur, as participants were not forced to respond to each question in the web-based survey.

Missing values may negatively influence the empirical results obtained from multivariate datasets (Du Toit & Mels, 2002). It was, therefore, imperative to deal with it in fitting ways before the commencement of data analyses. As mentioned, the researcher deleted 165 incomplete responses before the commencement of data analyses.

5.3.4.2. *Item Analysis*

A number of latent variable scales were used to operationalise the latent variables in the study. Each latent variable scale comprised of indicator variables, also known as manifest variables (i.e. items), that were used to record relevant behaviour. Indicator variables functioned as the stimuli that were used to elicit responses from participants regarding the behaviour that underlies each latent variable.

The researcher acknowledged that some of the indicator variables subsumed under the latent variable scales that were used to operationalise the latent variables might be poor at eliciting responses from participants. These indicator variables may be either insensitive or inconsistent. For this reason, item analysis was conducted to evaluate the quality and internal consistency reliability of all the indicator variables that were used to record relevant behaviour.

5.3.4.3. *Confirmatory Factor Analysis*

CFA was performed to confirm the factor structure of each latent variable that was used to operationalise the latent variables in the study. The results of this statistical procedure demonstrated whether the latent variables were adequately defined in terms of the common variance among its indicator variables (MacKenzie, Podsakoff & Jarvis, 2005).

When performing CFA, researchers must postulate the number of factors that exist within a set of latent variables and on which factor each indicator variable must load prior to calculating

the results. This is determined by their pre-conceived theoretical and conceptual understanding of the factor structures associated with each construct. By implication, CFA is used to confirm the theoretical structure of each latent variable.

5.3.4.4. *Exploratory Factor Analysis*

EFA is performed when CFA results suggest poor fit between the observed data and researchers' pre-conceived theoretical and conceptual understanding of the factor structures associated with a particular construct. This statistical procedure determines the interrelationships that exist among indicator variables subsumed under the latent variable scales (Fletcher, 2007).

Hair, Black, Babin, Anderson and Tatham (2006) and Kerlinger and Lee (2000) explained that EFA involves a four-stage process. During the first stage of the process, researchers must decide which factor analysis method will be used to extract factors. Thereafter, they must identify an appropriate factor rotation method. During the third stage of the process, researchers must determine how many factors will be extracted. Finally, if necessary, they must calculate the factor loadings.

5.3.4.5. *Structural Equation Modelling*

SEM refers to a number of statistical techniques. These techniques can be performed on diverse datasets (e.g. cross-sectional or longitudinal data and experimental or non-experimental data) to evaluate the hypothesised relationships that exist between latent variables (Salkind, 2007).

There are two approaches to SEM, namely covariance-based structural equation modelling (CB-SEM) and variance-based structural equation modelling (VB-SEM). CB-SEM, also known as hard-based modelling, is primarily concerned with testing theory, while VB-SEM, also known as soft-based modelling, concentrates on exploring and predicting (Henseler, Ringle & Sinkovics, 2009). Both approaches to SEM offer a robust framework for estimating the parameters of conceptual models.

Although the researcher intended to use MSEM to analyse data gathered during the quantitative phase, she opted to perform a soft modelling approach to SEM for two reasons. Firstly, as mentioned, the majority of participants in the quantitative phase were employed in fee schools (n = 321 (91 percent)). A comparison between fee schools and no-fee schools was, therefore,

not possible in Part 3 of the study. Secondly, the researcher was unable to estimate all the parameters in a CB-SEM structural model due to the sample size ($n = 353$). VB-SEM enabled her to avoid challenges associated with the sample size.

As opposed to the hard modelling approach to SEM, which predominately involves the use of maximum likelihood estimations, the soft modelling approach to SEM uses PLS. Two sets of linear equations are used to formally define PLS models. These sets of linear equations are the outer model and the inner model. In terms of the hard-based modelling approach, the outer model is comparable to the measurement model. It postulates the relationships that exist between latent variables and indicator variables. In terms of the hard-based modelling approach, the inner model, on the other hand, is comparable to the structural model. It postulates the hypothesised relationships that exist between the latent variables (Henseler et al., 2009).

5.4. Summary

In Chapter 5, the research methodology of the quantitative phase that was used to evaluate the emerging structural model quantitatively (i.e. Part 3) was discussed. As mentioned in Chapter 1, only results concerning between-person variance in employee engagement among public school teachers in the Western Cape Province was verified using a cross-sectional approach based on a self-report web-based survey in the quantitative phase.

A multi-stage sampling process was used to select a probability sample in the quantitative phase. More specifically, stratified simple random sampling was used. The researcher adopted inclusion criteria that were similar to the inclusion criteria used in the qualitative phase to delineate the sample frame.

In consideration of foreseeable practical constraints associated with data collection (e.g. logistical and financial implications of distributing a paper-pencil questionnaire), a web-based survey was distributed among approximately 1 824 teachers employed in 76 public schools in the Western Cape Province to gather primary data for the purpose of the quantitative phase. After the deletion of incomplete responses ($n = 165$), the sample comprised of 353 teachers from fee schools ($n = 321$ (91 percent)) and no-fee schools ($n = 31$ (9 percent)).

The researcher decided to perform VB-SEM, also known as soft-based modelling, which concentrates on exploring and predicting in the quantitative phase (Henseler et al., 2009). As

mentioned, the soft modelling approach to SEM uses PLS. This enabled her to avoid challenges associated with the above-mentioned sample size.

In Chapter 6, the results of the quantitative phase will be discussed. Firstly, item analysis, CFA and EFA will be performed to determine whether the latent variable scales that were used in the self-report web-based survey were valid and reliable. Thereafter, PLS will be performed. As mentioned, two sets of linear equations are used to formally define PLS models, namely the outer model and the inner model. Both sets of linear equations will be evaluated in Chapter 6.

CHAPTER 6: RESULTS OF THE QUANTITATIVE PHASE (PART 3)

6.1. Introduction

In Chapter 6, the results of the quantitative phase will be discussed. Firstly, item analysis, CFA and EFA will be performed to determine whether the latent variable scales that were used in the self-report web-based survey were valid and reliable. Thereafter, PLS will be performed. As mentioned in Chapter 5, two sets of linear equations are used to formally define PLS models, namely the outer model and the inner model. Both sets of linear equations will be evaluated in Chapter 6.

6.2. Item Analysis

Cronbach's alpha (α) obtained during item analysis measures the internal consistency reliability of latent variable scales (Cronbach & Meehl, 1955). This reliability coefficient indicates which items, if any, in a particular latent variable scale has a negative effect on its overall reliability. In the event that the overall reliability of a latent variable scale improves after the deletion of such items they are considered for exclusion in the subsequent statistical analysis (Hair et al., 2006). Cronbach's α values typically range from .00 to +1.00, with +1.00 being perfect estimated reliability.

Nunnally (1978) proposed that Cronbach's α values of .70 or higher are satisfactory during the early stages of research regarding predictor tests. It is, however, important to mention that Nunnally advised that Cronbach's α values of .80 are not considered high enough in many applied settings. In these settings, Cronbach's α values of .90 are the minimum that should be accepted. The researcher adopted Nunnally's (1978) guidelines in the study. Cronbach's α values of .70 or higher were considered satisfactory.

Clark and Watson (1995, p. 316) remarked, "The average inter-item correlation (which is a straightforward measure of internal consistency) is a much more useful index than coefficient alpha per se". In consideration of this, the researcher decided to examine the average inter-item correlation of each latent variable scale in addition to Cronbach's α values.

Clark and Watson (1995) proposed that average inter-item correlations of between .15 and .50 are satisfactory. Clark and her colleague proposed such a wide range, as the cut-off value is largely dependent on the generality or specificity of a particular latent variable scale. Robinson, Shaver and Wrightsman (1991, p. 13) suggested that average inter-item correlations of .30 or higher are satisfactory or “exemplary”. Robinson and his colleagues added that average inter-item correlations between .20 and .29, .10 and .19 and .00 and .09 are “extensive”, “moderate” and “minimal” (Robinson et al., 1991, p. 13). The researcher adopted Robinson and his colleagues’ guidelines in the study. Average inter-item correlations of .30 or higher were considered satisfactory.

The results obtained from the item analysis will be reported below.

6.2.1. Utrecht Work Engagement Scale

Table 6.1 presents the results obtained from the item analysis of the three subscales of the UWES-9 (Schaufeli et al., 2006).

Table 6.1
Reliability statistics of the UWES-9

Scale	Number of items	α	M	SD	Inter-item correlation
UWES-9	9	.80	38.81	8.87	.59
VS	3	.89	11.87	3.37	.72
DS	3	.83	13.99	2.91	.63
AS	3	.67	12.95	2.59	.41

Note: M, Mean; SD, Standard deviation; VS, Vigour subscale; DS, Dedication subscale; AS, Absorption subscale.

Table 6.1 shows that the reliability coefficients of the UWES-9 (.80), as well as the vigour (.89) and dedication (.83) subscales, were satisfactory ($\alpha > .70$). The Cronbach’s α value of the absorption subscale showed only marginally satisfactory reliability (.67).

The inter-item correlation matrix of the UWES-9 (.59) indicated that its average inter-item correlation was satisfactory ($> .30$). The vigour subscale obtained exemplary inter-item correlations, which ranged from .74 (item EE-9) to .82 (item EE-4). Similarly, the inter-item correlations of the dedication and absorption subscales were also exemplary. The inter-item correlations of the dedication subscale varied between .61 (item EE-2) and .76 (item EE-6). The inter-item correlations of the absorption subscale ranged from .42 (item EE-3) to .54 (item EE-5).

6.2.2. Calling and Vocation Questionnaire

Table 6.2 displays the results obtained from the item analysis of the presence of transcendence summons, prosocial orientation and purposeful work subscales of the Calling and Vocation Questionnaire (Dik et al., 2012).

Table 6.2
Reliability statistics of the Calling and Vocation Questionnaire

Scale	Number of items	α	M	SD	Inter-item correlation
CVQ	12	.78	37.93	7.71	.51
PTSS	4	.70	12.01	2.86	.41
PPOS	4	.77	13.10	2.19	.45
PPWS	4	.88	12.82	2.66	.66

Note: M, Mean; SD, Standard deviation; CVQ, Calling and Vocation Questionnaire; PTSS, Presence of transcendence summons subscale; PPOS, Presence of prosocial orientation subscale; PPWS, Presence of purposeful work subscale.

Table 6.2 indicates that the reliability coefficients of the Calling and Vocation Questionnaire (.78), as well as the presence of transcendence summons (.70), prosocial orientation (.77) and purposeful work (.88) subscales, were satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the Calling and Vocation Questionnaire (.51) indicated that its average inter-item correlation was satisfactory ($> .30$). The presence of purposeful work and prosocial orientation subscales obtained exemplary inter-item correlations. The inter-item correlations of the presence of purposeful work subscale ranged from .72 (item TM-9) to .79 (item TM-4). The inter-item correlations of the presence of prosocial orientation subscale varied between .53 (item TM-2) and .63 (item TM-8). The presence of transcendence summons subscale, on the other hand, obtained minimal to exemplary inter-item correlations, which ranged from .08 (item TM-6) to .65 (item TM-11).

The researcher decided to retain all the items in the presence of transcendence summons subscale. Although the deletion of item TM-6 would have led to a .15 increase in the Cronbach's α value of the presence of transcendence summons subscale from .70 to .85, she argued that this was not warranted, as its Cronbach's α value was already satisfactory ($\alpha > .70$). What is more, the deletion of item TM-6 in the presence of transcendence summons subscale would change the nature of the well-researched instrument.

Notably, the researcher suggested that it is plausible the results obtained regarding item TM-6 may be due to its wording or the fact that it was the only reversed scored item in the Calling and Vocation Questionnaire. She recognised that this is a limitation of the study and undertook to interpret participants' responses with care.

6.2.3. PsyCap Questionnaire

Table 6.3 presents the results obtained from the item analysis of the four subscales of the PsyCap Questionnaire (Luthans et al., 2007).

Table 6.3
Reliability statistics of the PsyCap Questionnaire

Scale	Number of items	α	M	SD	Inter-item correlation
PCQ	24	.73	111.75	15.92	.33
HS	6	.81	27.52	4.07	.41
RS	6	.65	28.30	3.65	.24
SS	6	.77	29.06	3.90	.36
OS	6	.70	26.87	4.30	.29

Note: M, Mean; SD, Standard deviation; PCQ, PsyCap Questionnaire; HS, Hope subscale; RS, Resilience subscale; SS, Self-efficacy subscale; OS, Optimism subscale.

Table 6.3 shows that the reliability coefficients of the PsyCap Questionnaire (.73), as well as the hope (.81), self-efficacy (.77) and optimism (.70) subscales, were satisfactory ($\alpha > .70$). The Cronbach's α value of the resilience subscale showed only marginally satisfactory reliability (.65).

The inter-item correlation matrix of the PsyCap Questionnaire (.33) indicated that its average inter-item correlation was satisfactory ($> .30$). The hope and self-efficacy subscales obtained exemplary inter-item correlations. The inter-item correlations of the hope subscale ranged from .47 (item PSYCAP-13) to .64 (item PSYCAP-20). The inter-item correlations of the self-efficacy subscale varied between .44 (item PSYCAP-16) and .59 (item PSYCAP-11). The resilience subscale obtained moderate to exemplary inter-item correlations, which ranged from .16 (item PSYCAP-22) to .55 (item PSYCAP-24). The optimism subscale obtained extensive to exemplary inter-item correlations, which varied between .24 (item PSYCAP-18) and .57 (item PSYCAP-14).

The researcher decided to retain all the items in the resilience and optimism subscales. This decision was informed by the fact that the deletion of none of the items in either of the subscales

would have led to an increase in the above-mentioned Cronbach's α values, apart from item PSYCAP-18 in the optimism subscale. The deletion of item PSYCAP-18 would have led to a .01 increase in the Cronbach's α value of the optimism subscale from .70 to .71. The researcher argued that the deletion of item PSYCAP-18 in the optimism subscale was not warranted, as its Cronbach's α value was already satisfactory ($\alpha > .70$). What is more, the deletion of item PSYCAP-18 in the optimism subscale would change the nature of the well-researched instrument.

6.2.4. Work Locus of Control Scale

Table 6.4 displays the results obtained from the item analysis of the Work Locus of Control Scale (Spector, 1988).

Table 6.4
Reliability statistics of the Work Locus of Control Scale

Scale	Number of items	α	M	SD	Inter-item correlation
WLCS	8	.76	35.88	6.26	.30

Note: M, Mean; SD, Standard deviation; WLCS, Work Locus of Control Scale.

Table 6.4 indicates that the reliability coefficient of the Work Locus of Control Scale (.76) was satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the Work Locus of Control Scale (.30) indicated that its average inter-item correlation was satisfactory ($> .30$). The inter-item correlations of the Work Locus of Control Scale were either extensive or exemplary, ranging from .20 (item WLC-8) to .59 (items WLC-3 and WLC-6).

The researcher decided to retain all the items in the Work Locus of Control Scale. This decision was informed by the fact that the deletion of none of its items would have led to an increase in the above-mentioned Cronbach's α value.

6.2.5. Genos Emotional Intelligence Inventory

Table 6.5 presents the results obtained from the item analysis of the Genos Emotional Intelligence Inventory (Palmer et al., 2009). As mentioned in Chapter 5, the shortened version of the Genos Emotional Intelligence Inventory was used in the study. This version of the Genos Emotional Intelligence Inventory is not divided into subscales. For this reason, composite scores will be reported in Table 6.5.

Table 6.5
Reliability statistics of the Genos Emotional Intelligence Inventory

Scale	Number of items	α	M	SD	Inter-item correlation
GEII	14	.79	54.06	6.21	.21

Note: M, Mean; SD, Standard deviation; GEII, Genos Emotional Intelligence Inventory.

Table 6.5 shows that the reliability coefficient of the Genos Emotional Intelligence Inventory (.79) was satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the Genos Emotional Intelligence Inventory (.21) indicated that its average inter-item correlation was only marginally satisfactory ($> .30$). Its inter-item correlations were either extensive or exemplary, ranging from .29 (item EI-13) to .53 (item EI-10).

The researcher decided to retain all the items in the Genos Emotional Intelligence Inventory. This decision was informed by the fact that the deletion of none of its items would have led to an increase in the above-mentioned Cronbach's α value.

6.2.6. COPE Questionnaire

Table 6.6 displays the results obtained from the item analysis of the revised version of the COPE Questionnaire (Carver et al., 1989). As mentioned in Chapter 5, in accordance with Pienaar and Rothmann (2003) and Mostert and Joubert (2005), the researcher adopted the underlying four-factor structure of the COPE Questionnaire in the study. Only items that are subsumed under the active coping, turning to religion and seeking emotional support dimensions were used to assess coping strategies among public school teachers in the Western Cape Province. Item analysis was, therefore, conducted on the active coping, turning to religion and seeking emotional support subscales.

Table 6.6
Reliability statistics of the revised version of the COPE Questionnaire

Scale	Number of items	α	M	SD	Inter-item correlation
RVCQ	28	.87	83.58	15.25	.49
ACS	20	.88	61.02	8.48	.26
TRS	4	.88	11.48	3.67	.65
SESS	4	.84	11.08	3.10	.57

Note: M, Mean; SD, Standard deviation; RVCQ, Revised version of the COPE Questionnaire; ACS, Active coping subscale; TRS, Turning to religion subscale; SESS, Seeking emotional support subscale.

Table 6.6 indicates that the reliability coefficients of the COPE Questionnaire (.87), as well as the active coping (.88), turning to religion (.88) and seeking emotional support (.84) subscales, were satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the COPE Questionnaire (.49) indicated that its average inter-item correlation was satisfactory ($> .30$). The turning to religion and seeking emotional support subscales obtained exemplary inter-item correlations. The inter-item correlations of the turning to religion subscale ranged from .67 (item CS-4) to .81 (item CS-25). The inter-item correlations of the seeking emotional support subscale varied between .60 (item CS-1) and .79 (item CS-21). The active coping subscale, on the other hand, obtained moderate to exemplary inter-item correlations. The inter-item correlations of the active coping subscale ranged from .19 (item CS-3) to .60 (items CS-9 and CS-18).

The researcher decided to retain all the items in the active coping subscale. This decision was informed by the fact that the deletion of none of its items would have led to an increase in the above-mentioned Cronbach's α value.

6.2.7. Bern Illegitimate Tasks Scale

Table 6.7 presents the results obtained from the item analysis of the two subscales of the Bern Illegitimate Tasks Scale (Jacobshagen, 2006).

Table 6.7
Reliability statistics of the Bern Illegitimate Tasks Scale

Scale	Number of items	α	M	SD	Inter-item correlation
BITS	9	.86	24.26	8.00	.57
UNTS	5	.87	14.27	4.47	.57
URTS	4	.84	9.99	3.53	.57

Note: M, Mean; SD, Standard deviation; BITS, Bern Illegitimate Tasks Scale; UNTS, Unnecessary tasks subscale; URTS, Unreasonable tasks subscale.

Table 6.7 shows that the reliability coefficients of the Bern Illegitimate Tasks Scale (.86), as well as the unnecessary tasks (.87) and unreasonable tasks (.84) subscales, were satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the Bern Illegitimate Tasks Scale (.57) indicated that its average inter-item correlation was satisfactory ($> .30$). The unnecessary tasks and unreasonable tasks subscales obtained exemplary inter-item correlations. The inter-item correlations of the unnecessary tasks subscale ranged from .56 (item PW-1) to .78 (item PW-4). The inter-item correlations of the unreasonable tasks subscale varied between .57 (item PW-8) and .75 (item PW-6).

6.2.8. Organisational Climate Index

Table 6.8 displays the results obtained from the item analysis of the collegial leadership and professional teacher behaviour subscales of the Organisational Climate Index (Hoy et al., 2002).

Table 6.8
Reliability statistics of the Organisational Climate Index

Scale	Number of items	α	M	SD	Inter-item correlation
OCI	14	.88	56.14	8.83	.51
CLS	7	.87	28.64	4.57	.50
PTBS	7	.88	27.50	4.26	.52

Note: M, Mean; SD, Standard deviation; OCI, Organisational Climate Index; CLS, Collegial leadership subscale; PTBS, Professional teacher behaviour subscale.

Table 6.8 indicates that the reliability coefficients of the Organisational Climate Index (.88), as well as the collegial leadership (.87) and professional teacher behaviour (.88) subscales, were satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the Organisational Climate Index (.51) indicated that its average inter-item correlation was satisfactory ($> .30$). The collegial leadership and professional teacher behaviour subscales obtained exemplary inter-item correlations. The inter-item correlations of the collegial leadership subscale ranged from .56 (item SC-9) to .76 (item SC-1). The inter-item correlations of the professional teacher behaviour subscale varied between .55 (item SC-7) and .76 (item SC-13).

6.2.9. School Ethical Climate Index

Table 6.9 presents the results obtained from the item analysis of the School Ethical Climate Index (Schulte et al., 2002).

Table 6.9
Reliability statistics of the School Ethical Climate Index

Scale	Number of items	α	M	SD	Inter-item correlation
SECI	9	.89	35.41	7.01	.47

Note: M, Mean; SD, Standard deviation; SECI, School Ethical Climate Index.

Table 6.9 shows that the reliability coefficient of the School Ethical Climate Index (.89) was satisfactory ($\alpha > .70$).

The inter-item correlation matrix of the School Ethical Climate Index (.47) indicated that its average inter-item correlation was satisfactory ($> .30$). Its inter-item correlations were exemplary, ranging from .55 (item STRI-4) to .73 (items STRI-5).

6.2.10. Concluding remarks regarding the item analysis results

No excessively poor items were identified during item analysis. The researcher concluded that the quality and internal consistency reliability of the indicator variables, subsumed under each latent variable scale that was used in the self-report web-based survey, were satisfactory. As a result, the items subsumed under each latent variable scale were retained in the subsequent statistical analysis.

As mentioned in Chapter 5, an item in the unnecessary tasks subscale (“I have work tasks to take care of, which keep me wondering if they would not exist (or could be done with less effort), if some other people made less mistakes”) is typically excluded from the Bern Illegitimate Tasks Scale (e.g. Semmer et al., 2010; Vermaak, 2016). Interestingly, item analysis showed support for Jacobshagen's (2006) decision to retain this item.

6.3. Confirmatory Factor Analysis

A number of goodness-of-fit statistics that were obtained during CFA were used to evaluate the quality of latent variable scales (i.e. measurement model). These goodness-of-fit statistics are the Satorra-Bentler chi-square (S-B χ^2) (Satorra & Bentler, 1994), Root Mean Square Error

of Approximation (RMSEA) (Steiger & Lind, 1980, as cited by Steiger, 1990), Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI).

It is necessary to point out that it was not possible to test all the model parameters in a single measurement model. Due to restrictions in the sample size ($n = 353$), the researcher constructed a separate measurement model for each latent variable scale that comprised of subscales (i.e. UWES-9, Calling and Vocation Questionnaire, PsyCap Questionnaire, revised version of the COPE Questionnaire, Bern Illegitimate Tasks Scale and Organisational Climate Index).

6.3.1. Employee engagement measurement model

Table 6.10 presents the goodness-of-fit statistics of the employee engagement measurement model.

Table 6.10
Goodness-of-fit statistics of the employee engagement measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
UWES-9	36.90	.75	.04	1.00	1.00

The Satorra-Bentler χ^2 value³⁰ of the employee engagement measurement model was 36.90 ($p = .05$). The null hypothesis of the exact fit (RMSEA = .00) was, therefore, rejected. The p-value for the test of close fit was .75. In consideration of this, the null hypothesis of close fit (RMSEA < .05) was accepted.

The RMSEA value³¹ (.04) revealed good fit (RMSEA < .05). This result was supported by the GFI value³² (1.00) and AGFI value³³ (1.00), which also showed good fit (> .95).

³⁰ The S-B χ^2 is the traditional measure that is used to evaluate overall model fit. It “assesses the magnitude of discrepancy between the sample and fitted covariance matrices” (Hu & Bentler, 1999, p. 2).

³¹ Diamantopoulos and Sigauw (2000, p. 85) remarked that the RMSEA “is one of the most informative fit indices”. It is used to measure the amount of variance that exists between the estimated population covariance matrix and the observed population covariance matrix (Hooper, Coughlan & Mullen, 2008). RMSEA values that are smaller than .05 show good fit, values that are between .05 and .08 show reasonable fit, values that are greater than .08, but smaller than .10, show mediocre fit, and values that are greater than .10 show poor fit (Hair et al., 2006).

³² The GFI is used to measure the goodness-of-fit between the observed covariance matrix and the hypothesised model. GFI values that are closer to 1.00 and greater than .95 show good fit (Hooper et al., 2008).

³³ The AGFI is used to correct the GFI value, which is influenced by the number of indicator variables subsumed under each latent variable scale. AGFI values that are closer to 1.00 and greater than .95 show good fit (Hooper et al., 2008).

Each of the t-values³⁴ was satisfactory ($-1.96 < t\text{-value} < +1.96$). Each of the p-values³⁵ was significant ($p > .05$). Item EE-6 had the highest t-value (53.71) and regression coefficient (.91). Item EE-3 had the lowest t-value (8.93) and regression coefficient (.53).

The amount of variance extracted by two subscales of the UWES-9 was satisfactory ($> .50$). The vigour subscale extracted the highest amount of variance (.77). The absorption subscale extracted the smallest amount of variance (.48). The researcher suggested that this did not warrant concern, as it was just below the .50 cut-off value.

Each subscale of the UWES-9 had excellent construct reliability ($> .70$). The vigour subscale had the highest construct reliability (.91). The absorption subscale had the lowest construct reliability (.73).

The correlation between the three subscales of the UWES-9 varied between .90 and .95. This suggested that its subscales were highly correlated with each other.

6.3.2. Teaching motivation measurement model

Table 6.11 displays the goodness-of-fit statistics of the teaching motivation measurement model.

Table 6.11
Goodness-of-fit statistics of the teaching motivation measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
CVQ	155.33	.00	.08	.99	.99

Note: CVQ, Calling and Vocation Questionnaire.

The Satorra-Bentler χ^2 value of the teaching motivation measurement model was 155.33 ($p = .00$). For this reason, the null hypothesis of the exact fit ($RMSEA = .00$) was rejected. This result was echoed by the p-value for the test of close fit (.00). The null hypothesis of close fit ($RMSEA < .05$) was, therefore, also rejected.

³⁴ The t-value is calculated by dividing the regression coefficient by its standard error. When using a 95 percent confidence level, t-values between -1.96 and +1.96 are satisfactory.

³⁵ The p-value is used to measure the likelihood of obtaining a test statistic (t-value) that is equal to or greater than the test statistic that was actually observed. When using a 95 percent confidence level, p-values smaller than .05 indicate that the null hypothesis should be rejected.

The RMSEA value (.08) revealed reasonable fit ($.05 < \text{RMSEA} < .08$). It is necessary to point out that this result was not supported by the GFI value (.99) and the AGFI value (.99). These values showed good fit ($> .95$).

Each of the t-values was satisfactory ($-1.96 < \text{t-value} < +1.96$), with the exception of the t-value of item TM-6. Each of the p-values was significant ($p > .05$), with the exception of the p-value of item TM-6. Item TM-12 had the highest t-value (39.79) and regression coefficient (.90). Item TM-6 had the lowest t-value (.43) and regression coefficient (.03).

The amount of variance extracted by the presence of transcendence summons, prosocial orientation and purposeful work subscales of the Calling and Vocation Questionnaire were satisfactory ($> .50$). The presence of purposeful work subscale extracted the highest amount of variance (.77). The presence of prosocial orientation subscale extracted the smallest amount of variance (.56).

The presence of transcendence summons, prosocial orientation and purposeful work subscales of the Calling and Vocation Questionnaire had excellent construct reliability ($> .70$). The presence of purposeful work subscale had the highest construct reliability (.93). The presence of transcendence summons subscale had the lowest construct reliability (.80).

The correlation between the presence of transcendence summons, prosocial orientation and purposeful work subscales of the Calling and Vocation Questionnaire ranged from .72 to .84. This suggested that the presence of transcendence summons, prosocial orientation and purposeful work subscales were highly correlated with each other.

6.3.3. Psychological capital measurement model

Table 6.12 presents the goodness-of-fit statistics of the psychological capital measurement model.

Table 6.12
Goodness-of-fit statistics of the psychological capital measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
PCQ	750.85	.00	.08	.97	.96

Note: PCQ, PsyCap Questionnaire.

The Satorra-Bentler χ^2 value of the psychological capital measurement model was 750.85 ($p = .00$). For this reason, the null hypothesis of the exact fit ($RMSEA = .00$) was rejected. This result was echoed by the p-value for the test of close fit ($.00$). The null hypothesis of close fit ($RMSEA < .05$) was, therefore, also rejected.

The RMSEA value (.08) revealed reasonable fit ($.05 < RMSEA < .08$). It is necessary to point out that this result was not supported by the GFI value (.97) and the AGFI value (.96). These values showed good fit ($> .95$).

Each of the t-values was satisfactory ($-1.96 < t\text{-value} < +1.96$). Each of the p-values was significant ($p > .05$). Item PSYCAP-14 had the highest t-value (26.95) and regression coefficient (.80). Item PSYCAP-18 had the lowest t-value (4.45) and regression coefficient (.30).

The amount of variance extracted by none of the subscales of the PsyCap Questionnaire was satisfactory ($> .50$). The amount of variance extracted by the hope (.49), resilience (.33), self-efficacy (.46) and optimism (.38) subscales was smaller than the 0.50 cut-off value. The hope and self-efficacy subscales were, however, still marginally satisfactory.

Each subscale of the PsyCap Questionnaire had excellent construct reliability ($> .70$). The hope subscale had the highest construct reliability (.85). The resilience subscale had the lowest construct reliability (.73).

The correlation between the four subscales of the PsyCap Questionnaire varied between .75 and .95. This suggested that its subscales were highly correlated with each other.

6.3.4. Coping strategies measurement model

Table 6.13 displays the goodness-of-fit statistics of the coping strategies measurement model.

Table 6.13
Goodness-of-fit statistics of the coping strategies measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
RVCQ	852.44	.00	.06	.96	.95

Note: RVCQ, Revised version of the COPE Questionnaire.

The Satorra-Bentler χ^2 value of the coping strategies measurement model was 852.44 ($p = .00$). For this reason, the null hypothesis of the exact fit (RMSEA = .00) was rejected. This result was echoed by the p-value for the test of close fit (.00). The null hypothesis of close fit (RMSEA < .05) was, therefore, also rejected.

The RMSEA value (.06) revealed reasonable fit (.05 < RMSEA < .08). It is necessary to point out that this result was not supported by the GFI value (.96) and the AGFI value (.95). These values showed good fit (> .95).

Each of the t-values was satisfactory ($-1.96 < t\text{-value} < +1.96$). Each of the p-values was significant ($p > .05$). Item CS-6 had the highest t-value (38.67) and regression coefficient (.95). Item CS-3 had the lowest t-value (3.51) and regression coefficient (.23).

The amount of variance extracted by the subscales of the revised version of the COPE Questionnaire was satisfactory (> .50), apart from the active coping subscale. The turning to religion subscale extracted the highest amount of variance (.75). The active coping subscale extracted the smallest amount of variance (.35).

The active coping, turning to religion and seeking emotional support subscales of the revised version of the COPE Questionnaire had excellent construct reliability (> .70). The turning to religion subscale had the highest construct reliability (.92). The seeking emotional support subscale had the lowest construct reliability (.88).

The correlation between the active coping, turning to religion and seeking emotional support subscales of the revised version of the COPE Questionnaire ranged from .17 to .33. This suggested that its subscales were only slightly correlated.

6.3.5. Perceived workload measurement model

Table 6.14 presents the goodness-of-fit statistics of the perceived workload measurement model.

Table 6.14
Goodness-of-fit statistics of the perceived workload measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
BITS	82.64	.01	.08	1.00	.99

Note: BITS, Bern Illegitimate Tasks Scale.

The Satorra-Bentler χ^2 value of the perceived workload measurement model was 82.64 ($p = .00$). For this reason, the null hypothesis of the exact fit ($RMSEA = .00$) was rejected. This result was echoed by the p-value for the test of close fit (.01). The null hypothesis of close fit ($RMSEA < .05$) was, therefore, also rejected.

The RMSEA value (.08) revealed reasonable fit ($.05 < RMSEA < .08$). It is necessary to point out that this result was not supported by the GFI value (1.00) and the AGFI value (.99). These values showed good fit ($> .95$).

Each of the t-values was satisfactory ($-1.96 < t\text{-value} < +1.96$). Each of the p-values was significant ($p > .05$). Item PW-4 had the highest t-value (47.97) and regression coefficient (.89). Item PW-8 had the lowest t-value (15.49) and regression coefficient (.66).

The amount of variance extracted by the subscales of the Bern Illegitimate Tasks Scale was satisfactory ($> .50$). Both subscales extracted the same amount of variance (.64).

Each subscale of the Bern Illegitimate Tasks Scale had excellent construct reliability ($> .70$). The unnecessary tasks subscale had the highest construct reliability (.90). The unreasonable tasks subscale had the lowest construct reliability (.87).

The correlation between the two subscales of the Bern Illegitimate Tasks Scale was .92. This suggested that its subscales were highly correlated with each other.

6.3.6. School climate measurement model

Table 6.15 displays the goodness-of-fit statistics of the school climate measurement model.

Table 6.15
Goodness-of-fit statistics of the school climate measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
OCI	307.80	.00	.09	.98	.97

Note: OCI, Organisational Climate Index.

The Satorra-Bentler χ^2 value of the school climate measurement model was 307.80 ($p = .00$). For this reason, the null hypothesis of the exact fit ($RMSEA = .00$) was rejected. This result was echoed by the p-value for the test of close fit (.00). The null hypothesis of close fit ($RMSEA < .05$) was, therefore, also rejected.

The RMSEA value (.09) revealed mediocre fit ($.08 < \text{RMSEA} < .10$). It is necessary to point out that this result was not supported by the GFI value (.98) and the AGFI value (.97). These values showed good fit ($> .95$).

Each of the t-values was satisfactory ($-1.96 < t\text{-value} < +1.96$). Each of the p-values was significant ($p > .05$). Item SC-13 had the highest t-value (33.43) and regression coefficient (.84). Item SC-7 had the lowest t-value (14.60) and regression coefficient (.62).

The amount of variance extracted by the collegial leadership and teacher professional behaviour subscales of the Organisational Climate Index was satisfactory ($> .50$). Both subscales extracted the same amount of variance (.61).

The collegial leadership and teacher professional behaviour subscales of the Organisational Climate Index had excellent construct reliability ($> .70$). Both subscales had the same construct reliability (.92).

The correlation between the collegial leadership and teacher professional behaviour subscales of the Organisational Climate Index was .59. This suggested that the collegial leadership and teacher professional behaviour subscales were correlated with each other.

6.3.7. Concluding remarks regarding the confirmatory factor analysis results

The researcher concluded that each of the above-mentioned measurement models reproduced the empirical data reasonably well. The employee engagement measurement model showed good fit ($\text{RMSEA} < .05$) and the teaching motivation, psychological capital, coping strategies and perceived workload measurement models showed reasonable fit ($.05 < \text{RMSEA} < .08$). Although the school climate measurement model showed mediocre fit ($.08 < \text{RMSEA} < .10$), the GFI values and the AGFI values obtained for each measurement model supported good fit ($> .95$).

Notably, the correlation between the subscales of the revised version of the COPE Questionnaire ranged from .17 to .33. This suggested that its subscales were only slightly correlated. Upon revisiting the original version of the COPE Questionnaire (Carver et al., 1989), the researcher concluded that coping strategies is probably a formative construct, rather than a reflective construct.

The principles underlying reflective constructs are fundamentally different from formative constructs. Reflective constructs consist of a representative set of all possible items within the conceptual domain of a particular construct. In other words, indicator variables of reflective constructs are interchangeable and highly correlated. Indicator variables of formative constructs, on the other hand, are distinct and uncorrelated (Diamantopoulos & Winklhofer, 2001).

Although the subscales of the revised version of the COPE Questionnaire measure three engagement coping strategies (i.e. active coping, turning to religion and seeking emotional support), from a theoretical and conceptual point of view, public school teachers in the Western Cape Province may not necessarily exhibit each of these coping strategies. As an illustration, teachers may exhibit active coping and turn to their religion when faced with demands, but refrain from seeking emotional support.

The researcher decided to conduct an EFA on the revised version of the COPE Questionnaire to demonstrate additional statistical support for the above-mentioned notion and establish its factor structure.

6.4. Exploratory Factor Analysis

PCA and oblique rotation were used to perform an EFA on the revised version of the COPE Questionnaire. PCA is used to reduce the number of factors that may be correlated with one another into a smaller number of uncorrelated factors. These factors are the principal components (Hair et al., 2006).

The oblique rotation assumes that the principal components are correlated. It is suitable “if the ultimate goal of the factor analysis is to obtain several theoretically meaningful factors or constructs” (Hair et al., 2006, p. 110).

According to Thompson and Daniel (1996, p. 200), “simultaneous use of multiple decision rules is appropriate and often desirable” during factor extraction. Hair, Anderson, Tatham and Black (1995) supported this notion. For this reason, the researcher used multiple criteria to inform factor extraction in the study. Her decision regarding the number of factors to extract was determined based on the results obtained from Cattell's (1966) scree plot, Kaiser's (1960) criteria (eigenvalues > 1.00), the cumulative percentage of variance extracted and parallel analysis (Horn, 1965).

6.4.1. Cattell's scree plot

When inspecting and evaluating Cattell's (1966) scree plot, researchers must draw two lines. A horizontal line through smaller eigenvalues and a vertical line through larger eigenvalues. The point where these two lines cross is known as the elbow of the scree plot. Only the factors that fall to the left of the elbow are considered for inclusion in the subsequent statistical analysis.

Figure 6.1 depicts the scree plot of the revised version of the COPE Questionnaire.

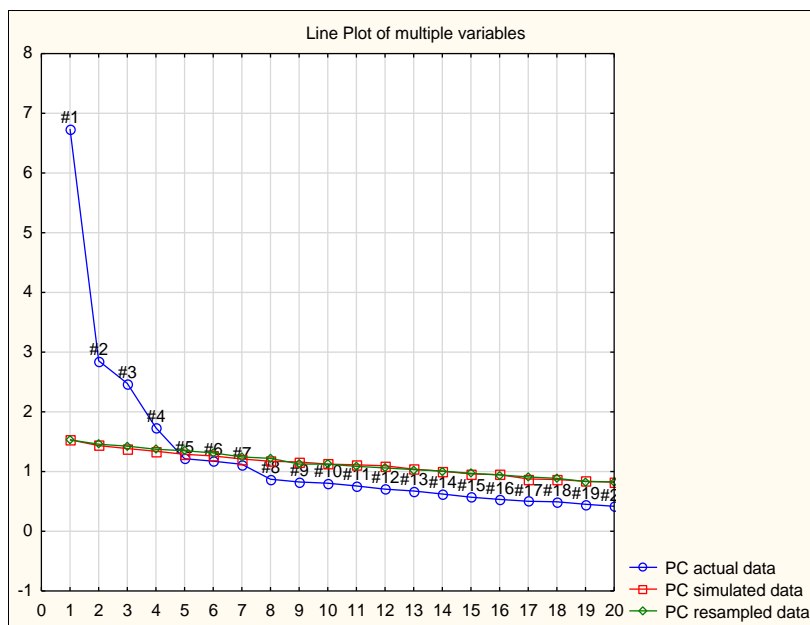


Figure 6.1 Scree plot of the revised version of the COPE Questionnaire

Figure 6.1 indicates that the scree plot and eigenvalues produced a departure from linearity that coincides with a four-factor solution. By implication, the scree plot suggested that a four-factor solution should be used to analyse data.

It is important to recognise that the interpretation of Cattell's (1966) scree plot is inherently subjective, as it requires researchers' subjective judgement (Tabachnick & Fidell, 2007). In consideration of this, the researcher supplemented the above-mentioned results with Kaiser's (1960) criteria, the cumulative percentage of variance extracted and parallel analysis (Horn, 1965).

6.4.2. Kaiser's criteria

Eigenvalues are used to measure the amount of variance in all the variables that each factor explains. To put it differently, these values reveal the explanatory importance of each factor. Factors with a low eigenvalue do not contribute to the explanation of variance in the variables. These factors are considered for exclusion in the subsequent statistical analysis. Factors with a high eigenvalue, on the other hand, contribute to the explanation of variance in the variables. These factors are considered for inclusion in the subsequent statistical analysis.

According to Kaiser (1960), eigenvalues greater than 1.00 are satisfactory. The researcher adopted Kaiser's (1960) criteria in the study. Eigenvalues greater than 1.00 were considered satisfactory.

Table 6.16 presents the eigenvalues of the revised version of the COPE Questionnaire.

Table 6.16
Eigenvalues of the revised version of the COPE Questionnaire

Identified factors	Eigenvalues
Factor 1	6.74
Factor 2	2.86
Factor 3	2.48
Factor 4	1.73

Table 6.16 shows that four factors had the eigenvalues greater than 1.00. Factor 1 had the highest eigenvalue (6.74). Factor 4 had the lowest eigenvalue (1.73).

6.4.3. Cumulative percentage of variance extracted

The percentage of variance measures the percentage of variance in all the variables that each factor explains. The cumulative percentage, on the other hand, measures the total percentage of variance in all the variables that are jointly explained by the factors.

Although there are no fixed cut-off values for cumulative percentage of variance, some researchers have proposed guidelines that can be used to interpret these values. To take a case in point, Hair et al. (1995) advised that factors should be stopped when at least 95 percent of variance in all the variables are explained. In humanities, however, Hair and his colleagues recommended that cumulative percentage of variance values typically range from 50 percent to 60 percent. The researcher adopted Hair et al.'s (1995) guidelines for research in humanities

in the study. A cumulative percentage of variance value greater than 50 percent was considered satisfactory.

Table 6.17 presents the total percentage of variance and cumulative percentage of variance of the four-factor solution.

Table 6.17
Percentage of variance and cumulative percentage of variance of the four-factor solution

Identified factors	Total percentage of variance	Cumulative percentage of variance
Factor 1	24.07	24.07
Factor 2	10.20	34.27
Factor 3	8.84	43.11
Factor 4	6.19	49.30

Table 6.17 shows that the four-factor solution explained 49.30 percent of the shared variance. Factor 1, Factor 2, Factor 3 and Factor 4 explained 24.07 percent, 10.20 percent, 8.84 percent and 6.19 percent of variance respectively.

6.4.4. Parallel analysis

“Parallel analysis appears to be among the best methods for deciding how many factors to extract or retain” (Thompson, 2004, p. 34). During parallel analysis, actual eigenvalues are compared to eigenvalues from random data with the same number of variables and sample size. Factors are retained when the actual eigenvalues are greater than the eigenvalues from the random data (Fletcher, 2007).

As an illustration, in terms of coping strategies, the original dataset comprised of 353 observations. A series of random correlation matrices of this size (353 x 28³⁶) were generated. Eigenvalues were calculated from the correlation matrices of the original dataset and the random dataset.

Table 6.18 presents the results obtained from parallel analysis of the revised version of the COPE Questionnaire. The factor loadings illustrate the correlations that exist between the items and the factors.

³⁶ Twenty-eight items were used, as the revised version of the COPE Questionnaire comprised of 28 items.

Table 6.18
Parallel analysis of the revised version of the COPE Questionnaire

Items	Factor 1	Factor 2	Factor 3	Factor 4
Item CS-2	-.63	.04	-.07	.02
Item CS-3	.14	-.13	.01	.54
Item CS-5	-.04	-.09	.06	.51
Item CS-7	-.07	-.06	.05	-.08
Item CS-8	-.64	-.21	.05	-.11
Item CS-9	-.80	.04	.03	-.10
Item CS-10	-.40	-.08	.01	.38
Item CS-11	-.47	-.07	-.07	.19
Item CS-12	-.44	.15	.01	.48
Item CS-13	-.50	.07	.02	.29
Item CS-15	-.59	.02	-.17	-.14
Item CS-17	-.62	.04	-.10	.06
Item CS-18	-.59	.05	-.04	.24
Item CS-19	.09	.09	-.13	.67
Item CS-20	-.35	.08	-.04	.43
Item CS-22	-.31	-.05	.06	.34
Item CS-23	-.57	-.19	.06	-.14
Item CS-24	-.70	-.00	-.04	-.05
Item CS-26	-.47	-.01	.12	.17
Item CS-28	-.02	-.11	-.01	.62
Item CS-1	-.09	.07	-.77	-.10
Item CS-14	.06	-.06	-.81	.05
Item CS-16	-.04	-.12	-.76	.02
Item CS-21	.03	-.03	-.90	.06
Item CS-4	-.11	-.75	-.06	.05
Item CS-6	.03	-.88	.02	.05
Item CS-25	-.01	-.90	-.03	-.02
Item CS-27	-.01	-.81	-.10	.09

Table 6.18 shows that four factors were generated. These factors only partially corresponded with the three factors that Pienaar and Rothmann (2003) and Mostert and Joubert (2005) proposed, namely active coping³⁷ (i.e. items CS-2, CS-3, CS-5, CS-7, CS-8, CS-9, CS-10, CS-11, CS-12, CS-13, CS-15, CS-17, CS-18, CS-19, CS-20, CS-22, CS-23, CS-24, CS-26 and CS-28), seeking emotional support (i.e. items CS-1, CS-14, CS-16 and CS-21) and turning to religion (i.e. items CS-4, CS-6, CS-25 and CS-27).

³⁷ As mentioned in Chapter 3, Mostert and Joubert (2005) referred to active coping in order to describe Pienaar and Rothmann's (2003) internally consistent factor of approach coping.

6.4.5. Concluding remarks regarding the exploratory factor analysis results

The results obtained from Cattell's (1966) scree plot, Kaiser's (1960) criteria, the cumulative percentage of variance extracted and parallel analysis (Horn, 1965) all pointed to a four-factor solution. The researcher recognised that the four-factor solution also had to make sense from a theoretical and conceptual point of view. In fact, she proposed that the theoretical and conceptual understanding of the four-factor solution was more important than the statistical understanding.

To develop a theoretical and conceptual understanding of the four-factor solution, the researcher once again revisited the original version of the COPE Questionnaire (Carver et al., 1989). The subscales of the original version of the COPE Questionnaire corresponded with Factors 1 through 4. These subscales are the active coping, positive reinterpretation and growth, planning (i.e. Factor 1), seeking social support for emotional reasons (i.e. Factor 2), turning to religion (i.e. Factor 3) and acceptance (i.e. Factor 4) subscales. In other words, the original version of the COPE Questionnaire verified the above-mentioned results.

Factor 1 had moderate to high factor loadings on all the items of the active coping, growth and planning and positive reinterpretation subscales, which ranged from - 0.47 (item CS-26) to - 0.80 (item CS-9). One item of the active coping subscale also loaded onto Factor 4 with a small secondary factor loading (item CS-10, 0.38). One item of the suppression of competing activities subscale (item CS-20, - 0.35) and the acceptance subscale (item CS-12, - 0.44) loaded onto Factor 1. These items, however, loaded onto Factor 4 with higher primary factor loadings (suppression of competing activities subscale: item CS-20, 0.43; acceptance subscale: item CS-12, 0.48).

Factor 2 had high factor loadings on all the items of the turning to religion subscale. Factor loadings varied between - 0.75 (item CS-4) and - 0.90 (item CS-25).

Factor 3 had high factor loadings on all the items of the seeking social support for emotional reasons subscale. Factor loadings ranged from - 0.76 (item CS-16) to - 0.90 (item CS-21).

Factor 4 had moderate factor loadings on all the items of the acceptance subscale, varying between 0.51 (item CS-5) and 0.67 (item CS-19). One item of the acceptance subscale also loaded onto Factor 1 with a small secondary factor loading (item CS-12, - 0.44). One item of

the active coping subscale (item CS-10, 0.38) loaded onto Factor 4. This item, however, loaded onto Factor 1 with a higher primary factor loading (item CS-10, - 0.40).

It is necessary to mention that one item of the restraint coping subscale (item CS-22) loaded on Factor 1 (- 0.31) and Factor 4 (0.34). Both of these factor loadings were, however, small secondary factor loadings. In consideration of this, the researcher decided to exclude this item from the subsequent statistical analysis.

In addition to the exclusion of item CS-22, the researcher also decided to exclude items from the suppression of competing activities subscale (items CS-20 and CS-26) and the restraint coping subscale (CS-5) from a theoretical and conceptual point of view.

6.5. Supplementary Item Analysis of the COPE Questionnaire

Table 6.19 displays the results obtained from supplementary item analysis of the revised version of the COPE Questionnaire (Carver et al., 1989). As mentioned, the subscales of the original version of the COPE Questionnaire corresponded with Factors 1 through 4 that were identified during EFA. These subscales are active coping, positive reinterpretation and growth, planning (i.e. Factor 1), seeking social support for emotional reasons (i.e. Factor 2), turning to religion (i.e. Factor 3) and acceptance (i.e. Factor 4). Supplementary item analysis was, therefore, conducted on the direct action³⁸, turning to religion, seeking emotional support³⁹ and acceptance subscales.

Table 6.19
Supplementary reliability statistics of the revised version of the COPE Questionnaire

Subscale	Number of items	α	M	SD	Inter-item correlation
RVCQ	24	.78	71.45	14.92	.45
DAS	12	.87	37.64	5.78	.35
TRS	4	.88	11.47	3.69	.66

³⁸ The researcher decided to refer to direct action in order to describe Factor 1 (i.e. active coping, growth and planning and positive reinterpretation subscales) that was identified during EFA. This decision was informed by the fact that the items that are subsumed under the active coping, growth and planning and positive reinterpretation subscales of the original version of the COPE Questionnaire describe direct actions that public school teachers in the Western Cape Province may take to address the demands that they encounter.

³⁹ The researcher decided to continue referring to seeking emotional support, as opposed to seeking social support for emotional reasons, to avoid any confusion among readers.

Table 6.19
Supplementary reliability statistics of the revised version of the COPE Questionnaire (Continued)

Subscale	Number of items	α	M	SD	Inter-item correlation
SESS	4	.84	11.10	3.13	.57
ACS	4	.54	11.24	2.32	.23

Note: M, Mean; SD, Standard deviation; RVCQ, Revised version of the COPE Questionnaire; DAS, Direct action subscale; TRS, Turning to religion subscale; SESS, Seeking emotional support subscale; ACS, Acceptance subscale.

Table 6.19 indicates that the reliability coefficients of the revised version of the COPE Questionnaire (.78), as well as the direct action (.87), turning to religion (.88) and seeking emotional support (.84) subscales, were satisfactory ($\alpha > .70$). The Cronbach's α value of the acceptance subscale showed only marginally satisfactory reliability (.54).

The inter-item correlation matrix of the revised version of the COPE Questionnaire (.45) indicated that its average inter-item correlation was satisfactory ($> .30$). The direct action, turning to religion and seeking emotional support subscales obtained exemplary inter-item correlations. The inter-item correlations of the direct action subscale varied between .46 (item CS-15) and .66 (item CS-9). The inter-item correlations of the turning to religion subscale ranged from .67 (item CS-4) to .81 (item CS-25). The inter-item correlations of the seeking emotional support subscale varied between .60 (item CS-1) and .80 (item CS-21). The inter-item correlations of the acceptance subscale were either extensive or exemplary, ranging from .21 (item CS-5) to .45 (item CS-28).

The researcher decided to retain all the items in the acceptance subscale. Although the deletion of item CS-5 would have led to a .02 increase in the Cronbach's α value of the acceptance subscale from .54 to .56, she argued that this was not warranted, as its Cronbach's α value would remain only marginally satisfactory ($\alpha < .70$). What is more, the deletion of item CS-5 in the acceptance subscale would change the nature of the well-researched instrument.

No excessively poor items were identified during supplementary item analysis. The researcher concluded that all the items that are subsumed under the direct action, turning to religion and seeking emotional support subscales of the revised version of the COPE Questionnaire should be retained in the subsequent statistical analysis.

6.6. Supplementary Confirmatory Factor Analysis of the Coping Strategies Measurement Model

Table 6.20 displays the goodness-of-fit statistics of the coping strategies measurement model that were obtained during supplementary CFA.

Table 6.20
Supplementary goodness-of-fit statistics of the coping strategies measurement model

Scale	Satorra-Bentler χ^2	p-value	RMSEA	GFI	AGFI
RVCQ	502.06	.00	.05	.97	.97

Note: RVCQ, Revised version of the COPE Questionnaire.

The Satorra-Bentler χ^2 value of the coping strategies measurement model was 502.06 ($p = .00$). For this reason, the null hypothesis of the exact fit (RMSEA = .00) was rejected. This result was echoed by the p-value for the test of close fit (.00). The null hypothesis of close fit (RMSEA < .05) was, therefore, also rejected.

The RMSEA value (.05) revealed good fit (RMSEA < .05). This was supported by the GFI value (.97) and AGFI value (.97), which also showed good fit (> .95).

Each of the t-values was satisfactory ($-1.96 < t\text{-value} < +1.96$). Each of the p-values was significant ($p > .05$). Item CS-6 had the highest t-value (38.35) and regression coefficient (.88). Item CS-3 had the lowest t-value (4.57) and regression coefficient (.38).

The amount of variance extracted by the turning to religion and seeking emotional support subscales of the revised version of the COPE Questionnaire was satisfactory (> .50). The amount of variance extracted by the direct action and acceptance subscales of the revised version of the COPE Questionnaire was unsatisfactory (< .50). The turning to religion subscale extracted the highest amount of variance (.75). The acceptance subscale extracted the smallest amount of variance (.30).

The direct action, turning to religion and seeking emotional support subscales of the revised version of the COPE Questionnaire had excellent construct reliability (> .70). The acceptance subscale of the revised version of the COPE Questionnaire had only marginally satisfactory construct reliability. The turning to religion subscale had the highest construct reliability (.92). The acceptance subscale had the lowest construct reliability (.61).

The correlation between the direct action, turning to religion, seeking emotional support and acceptance subscales of the revised version of the COPE Questionnaire ranged from .12 to .48. This suggested that its subscales were only slightly correlated. This result showed additional support for the researcher's conclusion that coping strategies is a formative construct, rather than a reflective construct.

6.7. Partial Least Squares

As opposed to the hard-based modelling approach, PLS does not provide for a global goodness-of-fit criterion. Chin (1998) recommended a two-stage process that can be used to evaluate PLS models using a list of criteria.

The first stage of the process that can be used to evaluate PLS models involves evaluating the outer model fit (i.e. measurement model) in order to determine the reliability and validity of outer model estimations. This is achieved by assessing the validity and reliability of reflective constructs and the validity of formative constructs. The results obtained offer an initial indication of the value of the subsequent statistical analysis (Chin, 1998).

Reliable and valid outer model estimations permit the commencement of the second stage. The second stage of the process that can be used to evaluate PLS models involves evaluating the inner model fit (i.e. structural model). This is achieved by assessing the amount of variance explained in reflective constructs and the effect sizes of path coefficients (Chin, 1998).

6.7.1. Evaluation of the measurement model or outer model

The CFA and EFA results revealed that the outer model consists of eight reflective constructs (i.e. employee engagement, teaching motivation, psychological capital, work locus of control, emotional intelligence, perceived workload, school climate and student-teacher relationships and interactions) and one formative construct (i.e. coping strategies).

Although PLS can be used to evaluate the fit of outer models that include formative constructs, Hair, Sarstedt, Pieper and Ringle (2012) remarked that many researchers do not evaluate these outer models correctly. Hair and his colleagues advised that the content validity of latent variable scales used to operationalise formative constructs must be evaluated through expert assessment. Expert assessment is used to determine whether the primary dimensions of a particular formative construct are captured by its indicator variables.

Even though coping strategies was operationalised as a composite latent variable in the emerging structural model (Figure 4.4), the researcher decided to operationalise direct action, turning to religion, seeking emotional support and acceptance as separate latent variables in the PLS path model. By implication, these latent variables were operationalised as reflective constructs. She anticipated that this would provide her with valuable insight into the effectiveness of each coping strategy. As mentioned in Chapter 2, the identification of effective coping strategies may be used to develop and implement human resource practices and interventions aimed at empowering public school teachers in the Western Cape Province with effective coping strategies.

The researcher will evaluate the validity and reliability of twelve reflective constructs (i.e. employee engagement, teaching motivation, psychological capital, work locus of control, emotional intelligence, perceived workload, school climate, student-teacher relationships and interactions, direct action, turning to religion, seeking emotional support and acceptance) below.

6.7.1.1. Variance Inflation Factor

The variance inflation factor (VIF) is also used to measure divergent validity or multicollinearity. It reflects the amount of variance, in indicator variables, that a common factor explains. VIF values closer to 1.00 indicate that problematic multicollinearity exists. In other words, two or more latent variables are highly correlated.

Garson (2016) suggested that VIF values smaller than 4.00 are satisfactory. Although other researchers have used a more lenient cut-off value of 5.00, the researcher adopted Garson's (2016) guidelines in the study. VIF values smaller than 4.00 were considered satisfactory.

Table 6.21 presents the VIF values of the latent variables.

Table 6.21
Variance inflation factor values of the latent variables

Scale	EE	PSYCAP	TM	DA	TR	SES	AC
EE							
TM	1.38	1.28					
PSYCAP				2.05	2.05	2.05	2.05
WLC		1.28		1.45	1.45	1.45	1.45
EI				1.84	1.84	1.84	1.84

Table 6.21
Variance inflation factor values of the latent variables (Continued)

Scale	EE	PSYCAP	TM	DA	TR	SES	AC
PW	1.16		1.05				
SC	1.43						
STRI	1.31		1.05				
DA	1.49						
SES	1.06						
TR	1.17						
AC	1.17						

Note: EE, Employee engagement; TM, Teaching motivation; PSYCAP, Psychological capital; WLC, Work locus of control; EI, Emotional Intelligence; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions; DA, Direct action; SES, Seeking emotional support; TR, Turning to religion; AC, Acceptance.

Table 6.21 shows that the VIF value of each latent variable was satisfactory (< 4.00). VIF values varied between 1.05 and 2.05. This suggested that each latent variable was distinct.

6.7.1.2. *Heterotrait-Monotrait Ratio*

Discriminant validity denotes the extent to which a particular construct is empirically distinct from other constructs. Although the Fornell-Larcker criterion (Fornell & Larcker, 1981) and cross-loadings can be used to measure discriminant validity, these methods are not without limitations (Henseler et al., 2009). Garson (2016) recommended that the Heterotrait-Monotrait (HTMT) ratio is a more sophisticated measure of discriminant validity. In accordance with this, the researcher decided to use the HTMT ratio to measure the discriminant validity of constructs in the study. HTMT ratio values greater than 1.00 indicate that two or more latent variables are highly correlated.

Even though Garson (2016) suggested that HTMT ratio values smaller than 1.00 are satisfactory, Henseler, Ringle and Sarstedt (2015) recommended that HTMT ratio values smaller than .90 indicate that discriminant validity has been established between two or more latent variables. Gold, Malhotra and Segars (2001) and Teo, Srivastava and Jiang (2008) recommended similar guidelines. The researcher adopted Henseler et al.'s (2015) guidelines to interpret HTMT ratio values in the study. HTMT ratio values smaller than .90 were considered satisfactory.

All the HTMT ratio values were smaller than the .90 cut-off value and ranged from .05 to .80. This suggested that each latent variable was distinct.

6.7.1.3. Composite Reliability

Composite reliability is used to measure the internal consistency reliability of latent variable scales. According to Garson (2016) and Hair, Sarstedt, Hopkins and Kuppelwieser (2014), it is the preferred measure of internal consistency reliability compared to Cronbach's α (Cronbach & Meehl, 1955). These researchers explained that Cronbach's α either overestimate or underestimate the reliability of latent variable scales. Composite reliability values typically range from .00 to +1.00, with +1.00 being perfect estimated reliability.

The cut-off value for composite reliability values is the same as for any measure of reliability, including Cronbach's α (Cronbach & Meehl, 1955). Hair, Ringle and Sarstedt (2011) suggested that composite reliability values greater than .60 are satisfactory in exploratory research. Chin (1998) and Höck and Ringle (2006) recommended similar guidelines. The researcher adopted Hair et al.'s (2011) guidelines to interpret composite reliability values in the study. Composite reliability values greater than .60 were considered satisfactory.

Table 6.22 depicts the composite reliability values of the latent variables.

Table 6.22
Composite reliability values of the latent variables

Scale	Composite reliability
EE	.93
TM	.89
PSYCAP	.90
WLC	.82
EI	.83
PW	.95
SC	.86
STRI	.93
DA	.89
TR	.92
SES	.89
AC	.70

Note: EE, Employee engagement; TM, Teaching motivation; PSYCAP, Psychological capital; WLC, Work locus of control; EI, Emotional Intelligence; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions; DA, Direct action; TR, Turning to religion; SES, Seeking emotional support; AC, Acceptance.

Table 6.22 indicates that the composite reliability value of each latent variable was satisfactory (> .60). Perceived workload had the highest composite reliability value (.95). Acceptance had the lowest composite reliability value (.70).

6.7.1.4. Average Variance Extracted

Average Variance Extracted (AVE) is a measure of convergent validity. Hair et al. (2014) explained that AVE is the same as the communality of a construct. It reflects the amount of variance, in indicator variables, that a common factor explains. AVE values typically range from .00 to +1.00. AVE values closer to zero indicate that the indicator variables of two or more latent variables are highly correlated.

Hair et al. (2011) suggested that support is provided for convergent validity when AVE values are greater than .50. Chin (1998) and Höck and Ringle (2006) recommended similar guidelines. The researcher adopted Hair et al.'s (2011) guidelines in the study. AVE values greater than .50 were considered satisfactory.

Table 6.23 presents the AVE values of the latent variables.

Table 6.23
Average variance extracted values of the latent variables

Scale	AVE
EE	.82
TM	.72
PSYCAP	.70
WLC	.39
EI	.27
PW	.90
SC	.75
STRI	.58
DA	.40
TR	.73
SES	.67
AC	.39

Note: EE, Employee engagement; TM, Teaching motivation; PSYCAP, Psychological capital; WLC, Work locus of control; EI, Emotional Intelligence; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions; DA, Direct action; TR, Turning to religion; SES, Seeking emotional support; AC, Acceptance.

Table 6.23 shows that the AVE values of eight latent variables were satisfactory (> .50). Perceived workload had the highest AVE value (.90). The AVE values of work locus of control (.39), emotional intelligence (.27), acceptance (.39) and direct action (.40) were smaller than the .50 cut-off value. Upon investigating the path coefficients, the researcher concluded that the AVE values of these latent variables did not necessarily influence the results obtained. A

number of the hypothesised relationships concerning these latent variables were statistically significant.

6.7.1.5. Concluding Remarks Regarding the Outer Model Fit

The researcher concluded that the validity and reliability of each construct were satisfactory. The above-mentioned results revealed that the VIF value (< 4.00), HTMT ratio value ($< .90$) and composite reliability value ($> .60$) of each latent variable were satisfactory. The AVE values of eight latent variables were satisfactory ($> .50$). Although the AVE values of four latent variables were smaller than the $.50$ cut-off value, the researcher concluded that it did not necessarily influence the results obtained. A number of the hypothesised relationships concerning these latent variables were statistically significant.

6.7.2. Evaluation of the structural model or inner model

After establishing the reliability and validity of the outer model estimations, the researcher evaluated the inner model fit. The R Square (R^2) values and R^2 adjusted values of the endogenous (η) latent variables and path coefficients of the hypothesised relationships were used as criteria.

6.7.2.1. Coefficient of Determination

The coefficient of determination, also known as R^2 , is used to measure the amount of variance observed in endogenous latent variables that the total structural model accounts for. R^2 values typically range from $.00$ to $+1.00$. R^2 values closer to zero indicate that the total structural model accounts for a limited amount of variance in a particular endogenous latent variable. R^2 values closer to 1.00 , on the other hand, indicate predictive accuracy.

R^2 adjusted values are comparable to the R^2 values. However, these coefficients of determination are calculated before predictors have been added to the regression model. Adding predictors to a regression model may increase R^2 values. To account for such bias, the researcher also calculated R^2 adjusted values.

Chin (1998, p. 323) suggested that R^2 values smaller than $.67$, $.33$ and $.19$ are “substantial”, “moderate” and “weak” respectively. Höck and Ringle (2006) recommended similar guidelines. The researcher adopted Chin's (1998) guidelines to interpret the R^2 values (and R^2 adjusted values) in the study.

Table 6.24 presents the R^2 values and R^2 adjusted values of nine endogenous latent variables. Notably, the R^2 values and R^2 adjusted values of the emotional intelligence (.00), perceived workload (.00) and school climate (.00), have been excluded from Table 6.24, as these latent variables were exogenous (ξ).

Table 6.24
R² values and R² adjusted values of the endogenous latent variables

Endogenous latent variables	R^2	R^2 adjusted
EE	.56	.55
TM	.12	.12
PSYCAP	.38	.37
WLC	.21	.21
STRI	.16	.15
DA	.36	.36
SES	.04	.03
TR	.01	.00
AC	.02	.01

Note: EE, Employee engagement; TM, Teaching motivation; PSYCAP, Psychological capital; WLC, Work locus of control; STRI, Student-teacher relationships and interactions; DA, Direct action; SES, Seeking emotional support; TR, Turning to religion; AC, Acceptance.

Table 6.24 shows that the R^2 values and R^2 adjusted values of four endogenous latent variables were satisfactory ($> .19$). Employee engagement had the highest R^2 value (.56) and R^2 adjusted value (.55). Turning to religion had the lowest R^2 value (.01) and R^2 adjusted value (.00).

The primary objective of the study was to identify the most salient antecedents of variance in employee engagement. For this reason, the weak R^2 values and R^2 adjusted values that were reported for teaching motivation (.12 and .12), student-teacher relationships and interactions (.16 and .15), seeking emotional support (.04 and .03), turning to religion (.01 and .00) and acceptance (.02 and .01) did not warrant concern. The total structural model accounts for between 55 and 56 percent of the variance observed in employee engagement among public school teachers in the Western Cape Province.

6.7.2.2. Path Coefficients

Path coefficients are standardised regression coefficients that indicate the strength of the hypothesised relationship between latent variables. Path coefficients typically range from .00 to +1.00 or -1.00, as data is standardised. Path coefficients closer to zero in the 95 percent confidence interval indicate the absence of a relationship between latent variables. Path

coefficients closer to + 1.00 or – 1.00 in the 95 percent confidence interval, on the other hand, indicate the presence of a relationship between latent variables.

Although path coefficients close to + 1.00 or – 1.00 are almost always statistically significant, Tenenhaus, Vinzi, Chatelin and Lauro (2005) advised that researchers use the nonparametric bootstrap procedure to determine the confidence intervals of the parameter estimates in order to build a basis for statistical inference. For this reason, the researcher used the bootstrap procedure to determine the confidence intervals of the parameter estimates.

The bootstrap procedure is used to determine the spread, shape and bias of the sampling distribution of a particular statistic. During this procedure, the observed sample is treated as if it is the population. The results obtained indicate the mean value and standard error of each path coefficient, which, in turn, is used to perform the t-test in order to determine the statistical significance of the hypothesised relationships (Hair et al., 2014).

Table 6.25 presents the factor loadings of the hypothesised relationships.

Table 6.25 shows that zero fell within the 95 percent confidence interval on thirteen occasions. This showed that the hypothesised impact of psychological capital on turning to religion (Proposition 5b: PLS path coefficient = .02), of psychological capital on seeking emotional support (Proposition 5c: PLS path coefficient = -.12), of psychological capital on acceptance (Proposition 5d: PLS path coefficient = .10), of work locus of control on direct action (Proposition 6a: PLS path coefficient = .06), of work locus of control on turning to religion (Proposition 6b: PLS path coefficient = -.07), of work locus of control on seeking emotional support (Proposition 6c: PLS path coefficient = -.06), of work locus of control on acceptance (Proposition 6d: PLS path coefficient = .03), of emotional intelligence on turning to religion (Proposition 7b: PLS path coefficient = .07), of emotional intelligence on acceptance (Proposition 7d: PLS path coefficient = .03), of turning to religion on employee engagement (Proposition 8b: PLS path coefficient = -.02), of seeking emotional support on employee engagement (Proposition 8c: PLS path coefficient = -.07), of acceptance on employee engagement (Proposition 8d: PLS path coefficient = -.04) and of school climate on employee engagement (Proposition 10: PLS path coefficient = .07) were not supported.

Table 6.25 also shows that zero did not fall within the 95 confidence interval of the remaining thirteen hypothesised relationships. This showed that the hypothesised impact of teaching motivation on employee engagement (Proposition 1: PLS path coefficient = .41), of teaching

motivation on psychological capital (Proposition 2: PLS path coefficient = .33), of emotional intelligence on work locus of control (Proposition 3: PLS path coefficient = .46), of work locus of control on psychological capital (Proposition 4: PLS path coefficient = .39), of psychological capital on direct action (Proposition 5a: PLS path coefficient = .27), of emotional intelligence on direct action (Proposition 7a: PLS path coefficient = .36), of emotional intelligence on seeking emotional support (Proposition 7c: PLS path coefficient = .26), of direct action on employee engagement (Proposition 8a: PLS path coefficient = .12), of perceived workload on employee engagement (Proposition 9: PLS path coefficient = -.14), of student-teacher relationships and interactions on employee engagement (Proposition 11: PLS path coefficient = .34), of emotional intelligence on student-teacher relationships and interactions (Proposition 12: PLS path coefficient = .40), of student-teacher relationships and interactions on teaching motivation (Proposition 13: PLS path coefficient = .27) and of perceived workload on teaching motivation (Proposition 14: PLS path coefficient = -.18) were supported.

Table 6.25
Factor loadings of the hypothesised relationships

Path	Path coefficient	95% lower	95% upper	Description	P-value from T-test
Proposition 1: TM → EE	.41	.31	.49	S	.00
Proposition 2: TM → PSYCAP	.33	.21	.43	S	.00
Proposition 3: EI → WLC	.46	.38	.55	S	.00
Proposition 4: WLC → PSYCAP	.39	.29	.49	S	.00
Proposition 5a: PSYCAP → DA	.27	.14	.37	S	.00
Proposition 5b: PSYCAP → TR	.02	-.19	.20	NS	.88
Proposition 5c: PSYCAP → SES	-.12	-.27	.02	NS	.12
Proposition 5d: PSYCAP → AC	.10	-.17	.30	NS	.40
Proposition 6a: WLC → DA	.06	-.05	.15	NS	.27
Proposition 6b: WLC → TR	-.07	-.21	.12	NS	.37
Proposition 6c: WLC → SES	-.06	-.18	.06	NS	.31
Proposition 6d: WLC → AC	.03	-.15	.19	NS	.72
Proposition 7a: EI → DA	.36	.25	.49	S	.00
Proposition 7b: EI → TR	.07	-.21	.26	NS	.56
Proposition 7c: EI → SES	.26	.13	.41	S	.00
Proposition 7d: EI → AC	.03	-.29	.29	NS	.87
Proposition 8a: DA → EE	.12	.03	.20	S	.01
Proposition 8b: TR → EE	-.02	-.11	.07	NS	.69
Proposition 8c: SES → EE	-.07	-.15	.00	NS	.05
Proposition 8d: AC → EE	-.04	-.11	.07	NS	.43
Proposition 9: PW → EE	-.14	-.22	-.05	S	.00
Proposition 10: SC → EE	.07	-.03	.16	NS	.17

Table 6.25
Factor loadings of the hypothesised relationships (Continued)

Path	Path coefficient	95% lower	95% upper	Description	P-value from T-test
Proposition 11: STRI → EE	.34	.26	.42	S	.00
Proposition 12: EI → STRI	.40	.32	.49	S	.00
Proposition 13: STRI → TM	.27	.16	.36	S	.00
Proposition 14: PW → TM	-.18	-.28	-.08	S	.00

Note: S, Significant; NS, Non-significant; TM, Teaching motivation; EE, Employee engagement; PSYCAP, Psychological capital; EI, Emotional intelligence; WLC, Work locus of control; DA, Direct action; TR, Turning to religion; SES, Seeking emotional support; AC, Acceptance; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions.

After using the bootstrap procedure to verify whether the hypothesised relationships were statistically significant, the researcher concluded that even though the hypothesised impact of direct action on employee engagement (Proposition 8a: PLS path coefficient = .12) and of perceived workload on employee engagement (Proposition 9: PLS path coefficient = -.14) was statistically significant, weak relationships exist between the latent variables of interest.

6.7.2.3. Concluding Remarks Regarding Inner Model Fit

Figure 6.2 illustrates the path diagram of the emerging structural model, which summarises the results concerning the inner model fit.

As illustrated in Figure 6.2, the R^2 value and R^2 adjusted value that was reported for employee engagement suggest that the total structural model accounts for between 55 and 56 percent of the variance observed in employee engagement among public school teachers in the Western Cape Province. In consideration of the primary objective of the study, the researcher concluded that this was satisfactory.

Figure 6.2 also illustrates the significant and non-significant path coefficients in the emerging structural model. The statistical significance of all the path coefficients was evaluated at the 95 percent confidence level. Propositions 1, 2, 3, 4, 5a, 7a, 7c, 8a, 9, 11, 12, 13 and 14 were supported, while Propositions 5b, 5c, 5d, 6a, 6b, 6c, 6d, 7b, 7d, 8b, 8c, 8d and 10 were not supported.

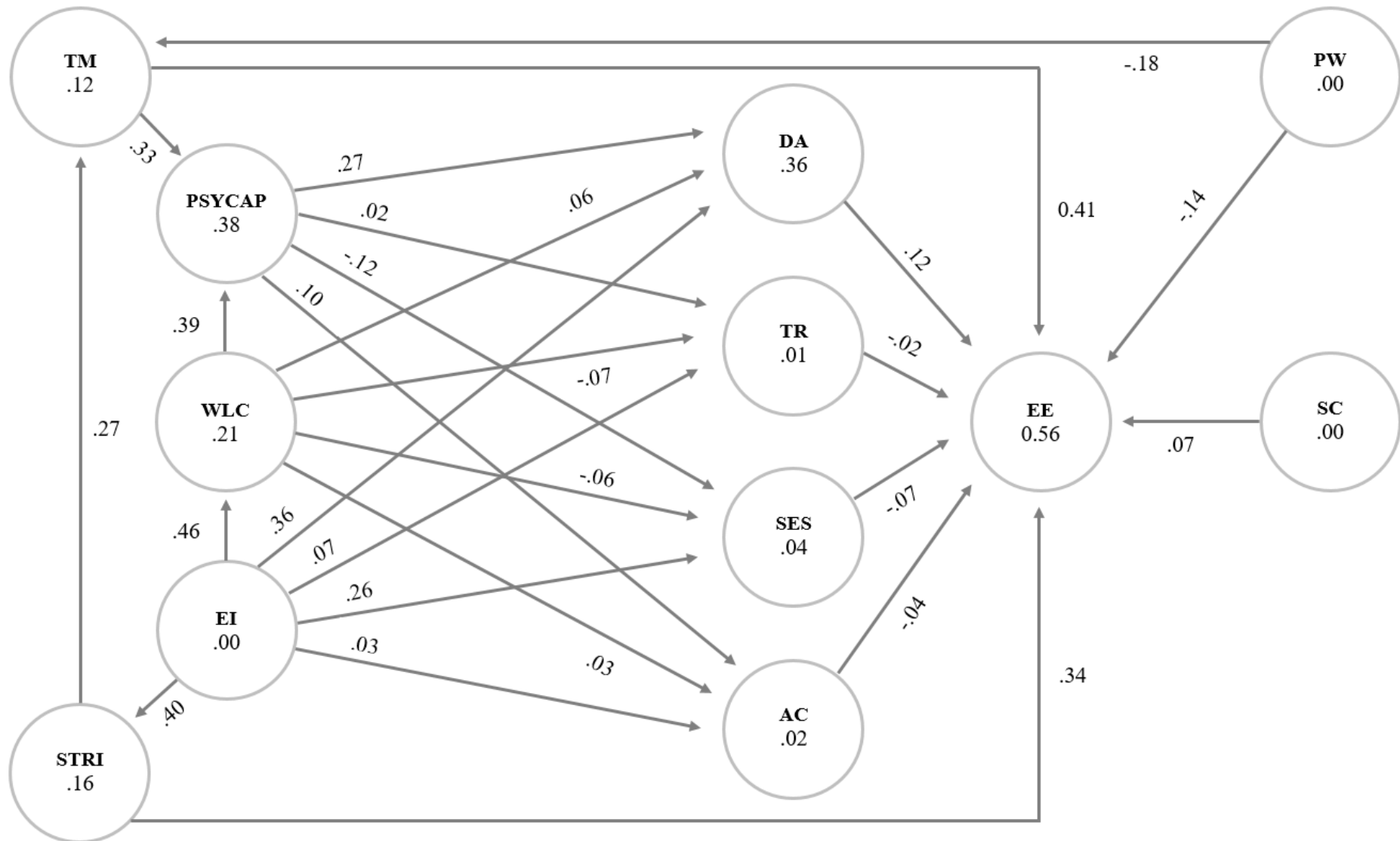


Figure 6.2 Path diagram of the emerging structural model

Note: TM, Teaching motivation; STRI, Student-teacher relationships and interactions; PSYCAP, Psychological capital; WLC, Work locus of control; EI, Emotional intelligence; DA, Direct action; TR, Turning to religion; SES, Seeking emotional support; AC, Acceptance; EE, Employee engagement; PW, Perceived workload; SC, School climate.

Researchers may remove weak relationships from structural models, or for reasons of theoretical importance, retain weak paths. Notably, the removal of weak relationships may influence the strength of the remaining hypothesised relationships. The researcher decided to retain the weak paths that exist between direct action and employee engagement (Proposition 8a) and perceived workload on employee engagement (Proposition 9) in Figure 6.2 for reasons of theoretical importance.

6.8. Interpreting the Final Employee Engagement Score

The UWES-9 was used to determine the extent to which public school teachers in the Western Cape Province are engaged in their work. Schaufeli and Bakker (2003) suggested that the scoring template presented in Table 6.26 might be used to interpret the meaning of the score obtained from any version of the UWES.

Table 6.26
UWES scoring template

Description	Mean score
1 - Once a year or less	0.00 to 0.99
2 - At least once a year	1.00 to 1.99
3 - At least once a month	2.00 to 2.99
4 - At least a couple of times a month	3.00 to 3.99
5 - At least once a week	4.00 to 4.99
6 - A couple of time per week or daily	5.00 to 6.00

Note: Adapted from *Utrecht Work Engagement scale: Preliminary manual* (p. 34), by W. B. Schaufeli and A. B. Bakker, 2003, Utrecht, the Netherlands: Occupational Health Psychology Unit, Utrecht University.

The average total mean score obtained for employee engagement was 4.31 (SD = 0.99). This indicates that public school teachers in the Western Cape Province exhibit a relatively high level of engagement. More specifically, it suggests that public school teachers feel engaged in their work at least once a week.

The following mean scores were obtained for the three subscales of the UWES-9:

- **Vigour:** The average mean score of the vigour subscale was 3.96 (SD = 1.12). This suggests that public school teachers in the Western Cape Province exhibit high levels of energy and mental resilience while working and the willingness to invest effort in their work at least a couple of times a month.

- **Dedication:** The average mean score of the dedication subscale was 4.66 (SD = 0.97). This suggests that public school teachers in the Western Cape Province feel actively involved in their work at least once a week.
- **Absorption:** The average mean score of the absorption subscale was 4.32 (SD = 0.98). This suggests that public school teachers in the Western Cape Province feel fully immersed and happily engrossed in their work at least once a week.

Schaufeli and Bakker (2003) compared the level of engagement that employees from diverse professions experience. Schaufeli and his colleague found that the mean scores obtained for employee engagement among farmers (4.24) and managers (4.14) were relatively high, whereas the mean scores obtained among blue-collar workers (3.63) and physicians (3.10) were relatively low. Upon comparing the average total mean score (4.31) obtained for employee engagement in the study to those reported by Schaufeli and Bakker (2003), the researcher concluded that public school teachers in the Western Cape Province are among the high-scoring professions.

It is, however, important to mention that the researcher recommended that the above-mentioned results should be interpreted with caution. She anticipated that public school teachers in the Western Cape Province, who are engaged in their work, were more likely to participate in the study compared to their counterparts. As a consequence, the above-mentioned average mean scores may have been inflated.

6.9. Interpreting the Hypothesised Relationships

Based on qualitative results propositions (i.e. Propositions 1 through 14) were formulated in Chapter 4. With reference to the above-mentioned path coefficients, each of the hypothesised relationships will be discussed below.

6.9.1. Teaching motivation and employee engagement

Proposition 1: Teaching motivation has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

The hypothesised positive impact of teaching motivation on employee engagement was found to be statistically significant in PLS (PLS path coefficient = .41). This suggests that the extent

to which teachers feel called to pursue a career in teaching (i.e. teaching motivation) influences the level of engagement that they experience. Teachers, who feel called to pursue a career in teaching, will be more likely to remain engaged in their work.

As mentioned in Chapter 4, research has demonstrated support for Proposition 1. It has indicated that calling predicts employee engagement directly (e.g. Ugwu & Onyishi, 2018). The researcher suggests that it is plausible that favourable career outcomes, such as work meaningfulness, occupational identify and occupational self-efficacy (e.g. Hirschi, 2012; Xie et al., 2016), mediate the positive association between teaching motivation and employee engagement. Future research should examine this notion.

6.9.2. Teaching motivation and psychological capital

Proposition 2: Teaching motivation has a significant positive influence on psychological capital among public school teachers in the Western Cape Province.

The hypothesised positive impact of teaching motivation on psychological capital was found to be statistically significant in PLS (PLS path coefficient = .33). This implies that the extent to which teachers feel called to pursue a career in teaching (i.e. teaching motivation) influences their psychological capital. Teachers, who feel called to pursue a career in teaching, will be more likely to exhibit positive psychological capital, especially self-efficacy, hope and resilience. More specifically, teachers, who feel called to pursue a career in teaching, will be more likely to exhibit self-efficacy. In turn, when beset with adversity and problems at work, these teachers will be more likely to persevere toward work goals (i.e. hope) and sustain and bounce back when beset with adversity and problems at work (i.e. resilience), as they believe in their capability to achieve work goals.

As mentioned in Chapter 4, research has shown partial support for Proposition 2. It has revealed that calling is positively related to self-efficacy (e.g. Hirschi, 2012) and, in turn, resilience (e.g. Keye & Pidgeon, 2013; Schwarzer & Warner, 2013). This corresponds with the social cognitive theory (Bandura, 1999), which suggests that individuals' belief in their capability to produce desired effects through their behavioural efforts lay the foundation of human agency.

6.9.3. Emotional intelligence and work locus of control

Proposition 3: Emotional intelligence has a significant positive influence on work locus of control (i.e. internal work locus of control) among public school teachers in the Western Cape Province.

The hypothesised positive impact of emotional intelligence on work locus of control was found to be statistically significant in PLS (PLS path coefficient = .46). This suggests that teachers' emotional intelligence influences their work locus of control. With reference to Palmer et al.'s (2009) definition of emotional intelligence, teachers, who have high emotional intelligence, will be more likely to regulate and control their emotions and behaviours according to situational appropriateness. This enables them to exercise personal control over work matters and, in turn, strengthen their belief that reinforcement or outcomes at work depend on their behaviour or personal characteristics (i.e. internal work locus of control).

As mentioned in Chapter 4, research has demonstrated support for Proposition 3. It has indicated that emotional intelligence and generalised, as well as domain-specific, locus of control are theoretically and empirically related (e.g. Ng et al., 2014; Singh, 2006).

6.9.4. Psychological capital and work locus of control

Proposition 4: Work locus of control (i.e. internal work locus of control) has a significant positive influence on psychological capital among public school teachers in the Western Cape Province.

The hypothesised positive impact of work locus of control on psychological capital was found to be statistically significant in PLS (PLS path coefficient = .39). This implies that teachers' work locus of control influences their psychological capital. As mentioned in Chapter 2, Luthans et al. (2007) directed attention to the underlying agentic capacity associated with each dimension of psychological capital. In view of this, teachers, who accept personal responsibility for reinforcement or outcomes at work (i.e. internal work locus of control) (Lefcourt, 1966), will be more likely to exhibit self-efficacy, optimism, hope and resilience. These teachers believe in their capability to achieve success (i.e. self-efficacy); make a positive attribution about achieving success in the present and the future (i.e. optimism); persevere toward work goals and, when needed, redirect paths (i.e. hope); and, when beset by problems and adversity at their work, sustain and bounce back to achieve success (i.e. resilience).

As mentioned in Chapter 4, research has shown support for Proposition 4. It has revealed that work locus of control is positively related to psychological capital (e.g. Shaik & Buitendach, 2015). This corresponds with the COR theory's notion of "resource caravans" (Hobfoll, 2001, p. 343), which suggests that resources generate each other. It also corresponds with the broaden-and-build theory, which suggests that positive emotions broaden employees' thought-action repertoires (i.e. broaden hypothesis) and build their resources (i.e. build hypothesis) (Fredrickson, 2004).

6.9.5. Psychological capital and coping strategies

Proposition 5a: Psychological capital has a significant positive influence on direct action as a coping strategy among public school teachers in the Western Cape Province.

Proposition 5b: Psychological capital has a significant positive influence on turning to religion as a coping strategy among public school teachers in the Western Cape Province.

Proposition 5c: Psychological capital has a significant positive influence on seeking emotional support as a coping strategy among public school teachers in the Western Cape Province.

Proposition 5d: Psychological capital has a significant positive influence on acceptance as a coping strategy among public school teachers in the Western Cape Province.

The hypothesised positive impact of psychological capital on direct action was found to be statistically significant in PLS (PLS path coefficient = .27). The hypothesised positive impact of psychological capital on turning to religion (PLS path coefficient = .02), seeking emotional support (PLS path coefficient = -.12) and acceptance (PLS path coefficient = .10), on the other hand, was found to be statistically non-significant in PLS. As mentioned in Chapter 4, research has demonstrated partial support for Propositions 5a through 5d. It has indicated that psychological capital and coping strategies are related (e.g. Karmakar, 2016; Li & Xiangpei, 2011). However, unexpectedly, the results obtained regarding Propositions 5b through 5d during the quantitative phase of the study suggest teachers, who have positive psychological

capital, will not be more likely to adopt turning to religion, seeking emotional support or acceptance as a coping strategy.

The results obtained regarding Proposition 5a during the quantitative phase of the study suggest teachers, who have positive psychological capital, will be more likely to adopt direct action as a coping strategy.

6.9.6. Work locus of control and coping strategies

Proposition 6a: Work locus of control (i.e. internal work locus of control) has a significant positive influence on direct action as a coping strategy among public school teachers in the Western Cape Province.

Proposition 6b: Work locus of control (i.e. internal work locus of control) has a significant positive influence on turning to religion as a coping strategy among public school teachers in the Western Cape Province.

Proposition 6c: Work locus of control (i.e. internal work locus of control) has a significant positive influence on seeking emotional support as a coping strategy among public school teachers in the Western Cape Province.

Proposition 6d: Work locus of control (i.e. internal work locus of control) has a significant positive influence on acceptance as a coping strategy among public school teachers in the Western Cape Province.

The hypothesised positive impact of work locus of control on direct action (PLS path coefficient = .06), turning to religion (PLS path coefficient = -.07), seeking emotional support (PLS path coefficient = -.06) and acceptance (PLS path coefficient = .03) was found to be statistically non-significant in PLS. As mentioned in Chapter 4, research has demonstrated partial support for Propositions 6a through 6d. It has indicated that locus of control and coping strategies are related (e.g. Brown et al., 2002; Dijkstra & Homan, 2016). However, unexpectedly, the results obtained regarding Propositions 6a through 6d during the quantitative phase of the study suggest teachers, who have an internal work locus of control, will not be more likely to adopt direct action, turning to religion, seeking emotional support or acceptance as a coping strategy.

6.9.7. Emotional intelligence and coping strategies

- Proposition 7a:** Emotional intelligence has a significant positive influence on direct action as a coping strategy among public school teachers in the Western Cape Province.
- Proposition 7b:** Emotional intelligence has a significant positive influence on turning to religion as a coping strategy among public school teachers in the Western Cape Province.
- Proposition 7c:** Emotional intelligence has a significant positive influence on seeking emotional support as a coping strategy among public school teachers in the Western Cape Province.
- Proposition 7d:** Emotional intelligence has a significant positive influence on acceptance as a coping strategy among public school teachers in the Western Cape Province.

The hypothesised positive impact of emotional intelligence on direct action (PLS path coefficient = .36) and seeking emotional support (PLS path coefficient = .26) was found to be statistically significant in PLS. The hypothesised positive impact of emotional intelligence on turning to religion (PLS path coefficient = .07) and acceptance (PLS path coefficient = .03), on the other hand, was found to be statistically non-significant in PLS. As mentioned in Chapter 4, research has demonstrated partial support for Propositions 7a through 7d. It has indicated that emotional intelligence and coping strategies are related (e.g. King & Gardner, 2006). However, unexpectedly, the results obtained regarding Propositions 7b and 7d during the quantitative phase of the study suggest teachers, who have high emotional intelligence, will not be more likely to adopt turning to religion or acceptance as a coping strategy.

The results obtained regarding Propositions 7a and 7c during the quantitative phase of the study suggest teachers, who have high emotional intelligence, will be more likely to adopt direct action or seeking emotional support as a coping strategy.

6.9.8. Coping strategies and employee engagement

- Proposition 8a:** Direct action as a coping strategy has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.
- Proposition 8b:** Turning to religion as a coping strategy has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.
- Proposition 8c:** Seeking emotional support as a coping strategy has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.
- Proposition 8d:** Acceptance as a coping strategy has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

The hypothesised positive impact of direct action on employee engagement was found to be statistically significant in PLS (PLS path coefficient = .12). The hypothesised positive impact of turning to religion (PLS path coefficient = -.02), seeking emotional support (PLS path coefficient = -.07) and acceptance (PLS path coefficient = -.04) on employee engagement, on the other hand, was found to be statistically non-significant in PLS. This suggests that teachers, who adopt direct action as a coping strategy, will be more likely to remain engaged in their work. In contrast, teachers, who adopt turning to religion, seeking emotional support or acceptance as a coping strategy, will be less likely to remain engaged in their work.

As mentioned in Chapter 2, it is important to recognise that not all coping strategies are equally effective. Although all coping strategies are aimed at dealing with demands, it does not necessarily signal that employees have adapted well to the demands created by stressful transactions between themselves and their environment. In line with this, the researcher attributes the above-mentioned results to the fact that teachers, who adopt direct action as a coping strategy, actively address and reduce the demands that they encounter. This enables them to cope effectively with the stressful nature of teaching and, in turn, remain engaged in their work. In contrast, teachers, who adopt turning to religion, seeking emotional support or acceptance as a coping strategy, do not directly address and reduce the demands that they

encounter. These teachers merely attenuate thoughts and emotions that have been provoked by the job demands that they encounter. As a result, they are unable to cope effectively with the stressful nature of teaching and, in turn, less likely to remain engaged in their work.

Research has shown partial support for the results obtained regarding Propositions 8a through 8d. For example, a cross-sectional study conducted by Van Der Colff and Rothmann (2009) among 818 nurses from private and public hospitals in South Africa demonstrated that approach coping was positively associated with employee engagement. Van Der Colff and her colleague also found that passive coping strategies (e.g. focus on and ventilation of emotions and turning to religion) were positively associated with job burnout and negatively associated with employee engagement.

6.9.9. Perceived workload and employee engagement

Proposition 9: Perceived workload has a significant negative influence on employee engagement among public school teachers in the Western Cape Province.

The hypothesised negative impact of perceived workload on employee engagement was found to be statistically significant in PLS (PLS path coefficient = $-.14$). This suggests that the perceived workload of teachers determines their level of engagement. As mentioned in Chapter 4, perceived workload was operationalised as a hindering job demand among public school teachers in the Western Cape Province. In other words, teachers appraise perceived workload as having the potential to harm personal growth or gains. Teachers are, therefore, less willing to invest time and effort in response to hindering job demands in order to prevent further energy depletion and increased job stress (Bakker & Demerouti, 2007). This, in turn, negatively influences the level of engagement that they experience.

As mentioned in Chapter 4, research has demonstrated support for Proposition 9. It has indicated that hindering job demands and employee engagement are negatively related (e.g. Crawford et al., 2010; Bakker & Sanz-Vergel, 2013). This corresponds with the health impairment process, which involves the physical and mental exhaustion related to chronic job demands or poorly designed jobs, as proposed by the JD-R model (Demerouti et al., 2001).

6.9.10. School climate and employee engagement

Proposition 10: School climate has a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

The hypothesised positive impact of school climate on employee engagement was found to be statistically non-significant in PLS (PLS path coefficient = .07). As mentioned in Chapter 4, research has demonstrated partial support for Proposition 10. It has indicated that school climate is related to the physical and psychological health outcomes of employees, such as psychological well-being and job burnout (e.g. Grayson & Alvarez, 2008; Sisask et al., 2014). In contrast, the results obtained regarding Proposition 10 during the quantitative phase of the study suggest that the extent to which the teachers of a school are committed to students and supportive of one another (i.e. teacher professionalism) and its principal is supportive and egalitarian (i.e. collegial leadership) does not determine the level of engagement that teachers experience.

6.9.11. Student-teacher relationships and interactions and employee engagement

Proposition 11: Student-teacher relationships and interactions have a significant positive influence on employee engagement among public school teachers in the Western Cape Province.

The hypothesised positive impact of student-teacher relationships and interactions on employee engagement was found to be statistically significant in PLS (PLS path coefficient = .34). This implies that student-teacher relationships and interactions influence the level of engagement that teachers experience. As mentioned in Chapter 4, student-teacher relationships and interactions were operationalised as an occupation-specific job resource among public school teachers in the Western Cape Province. Positive student-teacher relationships and interactions, therefore, foster employee engagement among teachers.

As mentioned in Chapter 4, research has shown partial support for Proposition 11. It has revealed that teacher-student relationships and interactions are related to the physical and psychological health outcomes of employees, such as affect and depression (e.g. Hamre et al., 2008; Yoon, 2002). This corresponds with the principle of emotional contagion, which suggests

that the emotions of employees (i.e. positive emotions or negative emotions) produce corresponding changes in the emotional state of observers.

6.9.12. Emotional intelligence and student-teacher relationships and interactions

Proposition 12: Emotional intelligence among public school teachers in the Western Cape Province has a significant positive influence on student-teacher relationships and interactions.

The hypothesised positive impact of teachers' emotional intelligence on student-teacher relationships and interactions was found to be statistically significant in PLS (PLS path coefficient = .40). This suggests that teachers' emotional intelligence influences the quality of student-teacher relationships and interactions. Teachers, who have high emotional intelligence, will be more likely to cultivate positive student-teacher relationships and interactions. These teachers develop encouraging and supportive relationships with students, plan lessons that build on the strengths and abilities of students, and use behavioural guidelines that enhance the intrinsic motivation of students. This, in turn, nurtures the motivational, affective and behavioural characteristics of their students.

As mentioned in Chapter 4, research has directed attention to the salience of emotional intelligence among teachers and its influence on their physical and psychological health outcomes (e.g. Kang et al., 2016; Yin, 2015). The results of the study correspond with the Jennings and Greenberg's (2009) prosocial classroom model. This model suggests that socially and emotionally competent teachers understand how students' emotions motivate their motivational, affective and behavioural characteristics.

6.9.13. Student-teacher relationships and interactions and teaching motivation

Proposition 13: Student-teacher relationships and interactions have a significant positive influence on teaching motivation among public school teachers in the Western Cape Province.

The hypothesised positive impact of student-teacher relationships and interactions on teaching motivation was found to be statistically significant in PLS (PLS path coefficient = .27). This implies that student-teacher relationships and interactions influence the extent to which

teachers feel called to pursue a career in teaching (i.e. teaching motivation). Positive student-teacher relationships and interactions are a source of motivation and enjoyment among teachers, as it satisfies their need for relatedness and meaningfulness at work. This, in turn, validates their decision to pursue a career in teaching despite the demands that they encounter.

As mentioned in Chapter 4, research has shown partial support for Proposition 13. It has revealed that positive student-teacher relationships and interactions are a source of motivation and enjoyment among teachers (e.g. Hargreaves, 2000; Klassen et al., 2012). The researcher attributed these results to the fact that it satisfies teachers' need for relatedness and meaningfulness at work. This corresponds with Ryan and Deci's (2000) social determination theory, which suggests that the satisfaction of three inherent psychological needs (i.e. autonomy, competence and relatedness) is a prerequisite for well-being and healthy development. In addition, it also corresponds with Bowlby's (1969) attachment theory, which suggests that an inherent psychological need to achieve or maintain emotional security motivates affectional bonding between two individuals.

6.9.14. Perceived workload and teaching motivation

Proposition 14: Perceived workload has a significant negative influence on teaching motivation among public school teachers in the Western Cape Province.

The hypothesised negative impact of perceived workload on teaching motivation was found to be statistically significant in PLS (PLS path coefficient = $-.18$). This suggests that the perceived workload of teachers determines the extent to which they feel called to pursue a career in teaching (i.e. teaching motivation). Teachers, who are routinely expected to perform unreasonable and unnecessary tasks, will be less likely to feel called to pursue a career in teaching. The researcher attributes this to the fact that unreasonable and unnecessary tasks send an implicit message of disrespect to teachers, which, in turn, invalidates their decision to pursue a career in teaching.

As mentioned in Chapter 4, research has shown that teachers typically provide intrinsic or altruistic reasons for their decision to pursue a career in teaching (e.g. helping students or making a meaningful contribution to society) (Struyven et al., 2013). In consideration of this, it is to be expected that unreasonable and unnecessary tasks, which detract from the core of teaching, may invalidate their decision to pursue a career in teaching. The results of the study

correspond with the Semmer et al.'s (2007) SOS theory. This theory suggests that work tasks contain social messages for employees. Illegitimate tasks denote work tasks that violate the norms of what can reasonably be expected from employees in a particular occupational role. These work tasks pose a threat to employees' professional self-image by sending an implicit message of disrespect.

6.10. Summary

In Chapter 6, the results of the quantitative phase were discussed. Firstly, item analysis, CFA and EFA were performed to determine whether the latent variable scales that were used in the self-report web-based survey were valid and reliable.

No excessively poor items were identified during item analysis. The results showed that the quality and internal consistency reliability of the indicator variables, subsumed under each latent variable scale that was used in the self-report web-based survey, were satisfactory. The researcher, therefore, decided to retain the items subsumed under each latent variable scale in the subsequent statistical analysis.

As mentioned, due to restrictions in the sample size ($n = 353$), the researcher constructed a separate measurement model for each latent variable scale that comprised of subscales (i.e. UWES-9, Calling and Vocation Questionnaire, PsyCap Questionnaire, COPE Questionnaire, Bern Illegitimate Tasks Scale and Organisational Climate Index). The results indicated that each measurement model reproduced the empirical data reasonably well.

Notably, the results obtained during CFA suggested that the subscales of the revised version of the COPE Questionnaire were only slightly correlated. Upon revisiting the original version of the COPE Questionnaire (Carver et al., 1989), the researcher concluded that coping strategies is a formative construct, rather than a reflective construct. She decided to conduct an EFA on the revised version of the COPE Questionnaire to demonstrate additional statistical support for this notion and establish its factor structure.

The results obtained from Cattell's (1966) scree plot, Kaiser's (1960) criteria, the cumulative percentage of variance extracted and parallel analysis (Horn, 1965) during EFA all pointed to a four-factor solution. The four-factor solution also made sense from a theoretical and conceptual point of view, as the subscales of the original version of the COPE Questionnaire corresponded with Factors 1 through 4.

Based on the results obtained during EFA, supplementary item analysis and CFA were performed on the direct action (i.e. Factor 1), turning to religion (i.e. Factor 2), seeking emotional support (i.e. Factor 3) and acceptance (i.e. Factor 4) subscales of the revised version of the COPE Questionnaire. No excessively poor items were identified during supplementary item analysis. In addition, the results obtained during supplementary CFA indicated that the coping strategies measurement model reproduced the empirical data well.

Once the researcher determined that the latent variable scales that were used in the self-report web-based survey were valid and reliable, she proceeded to perform PLS. In accordance with Chin's (1998) recommendation, a two-stage process was used to evaluate the PLS models using a list of criteria.

The first stage of the process concentrated on the evaluation of the outer model fit (i.e. measurement model). The VIF value (< 4.00), HTMT ratio value ($< .90$) and composite reliability value ($> .60$) of each latent variable were satisfactory. The AVE values of eight latent variables were satisfactory ($> .50$). Although the AVE values of four latent variables were smaller than the .50 cut-off value, the researcher concluded that the AVE values of these latent variables did not necessarily influence the results obtained. A number of the hypothesised relationships concerning these latent variables were statistically significant.

The second stage of the process concentrated on the evaluation of the inner model fit (i.e. structural model). The R^2 value and R^2 adjusted value that was reported for employee engagement suggest that the total structural model accounts for between 55 and 56 percent of the variance observed in employee engagement among public school teachers in the Western Cape Province.

In the path diagram of the emerging structural model (Figure 6.2) the statistical significance of all the path coefficients was evaluated at the 95 percent confidence level. Propositions 1, 2, 3, 4, 5a, 7a, 7c, 8a, 9, 11, 12, 13 and 14 were supported, while Propositions 5b, 5c, 5d, 6a, 6b, 6c, 6d, 7b, 7d, 8b, 8c, 8d and 10 were not supported.

In Chapter 7, a summative discussion of the qualitative phase (i.e. Parts 1 and 2), as well as the quantitative phase (i.e. Part 3), of the study will be presented. Following this, the theoretical conclusions and managerial implications of the study will be deliberated. Thereafter, the contributions of the study to the extant body of knowledge will be outlined. In conclusion, the limitations of the study and recommendations for future research will be discussed.

CHAPTER 7: THEORETICAL CONCLUSIONS, MANAGERIAL IMPLICATIONS, CONTRIBUTIONS, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

7.1. Introduction

In Chapter 7, a summative discussion of the qualitative phase (i.e. Parts 1 and 2), as well as the quantitative phase (i.e. Part 3), of the study will be presented. Following this, the theoretical conclusions and managerial implications of the study will be deliberated. Thereafter, the contributions of the study to the extant body of knowledge will be outlined. In conclusion, the limitations of the study and recommendations for future research will be discussed.

7.2. Summative Remarks Regarding the Qualitative Phase (Parts 1 and 2)

The qualitative phase of the study comprised of two parts. Part 1 of the qualitative phase was intended to identify the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. axial coding) (Northcutt & McCoy, 2004).

Due to unforeseen challenges associated with the arranged focus group sessions (e.g. time constraints in teachers' schedules), initial interviews were conducted with 37 teachers from fee schools ($n = 20$) and no-fee schools ($n = 17$). Based on information gathered during the initial interviews and a further review of the extant literature, eleven composite affinities were identified. The affinities that were identified are employee engagement, teaching motivation, personal characteristics, coping strategies, perceived workload, school climate, student-teacher relationships and interactions, school facilities and teaching resources, parental attitudes, social context of the neighbourhood and perceived organisational justice.

The researcher proposed that the above-mentioned affinities include latent variables that emanate from teachers themselves and those that emanate from the environment. This notion corresponds with Bronfenbrenner's (1977) ecological systems theory. For this reason, it was used as a conceptual framework to frame teacher-, school-, community- and societal-level

determinants that explain variance in the engagement phenomenon among public school teachers in the Western Cape Province (Figure 4.3).

The ecological systems theory refers to five nested and interconnected structures, ranging from the microsystem to the macrosystem, as well as the chronosystem (Bronfenbrenner, 1977). The researcher referred to each of these structures, apart from the mesosystem, to map the interactions between teachers and the environment that surrounds them.

Part 2 of the qualitative phase was intended to explore the relational dynamics that exist among the most salient contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province (i.e. theoretical coding) (Northcutt & McCoy, 2004).

Follow-up interviews were conducted with 28 teachers from fee schools (n = 14 (70 percent)) and no-fee schools (n = 14 (82 percent)). Based on the information gathered during the follow-up interviews, the researcher created a composite uncluttered SID (Figure 4.1) to explain public school teachers in the Western Cape Province's experience with the engagement phenomenon. In addition, she enquired about the stability of the perceived causal relationships (i.e. direction and intensity) and teachers' level of engagement (i.e. within-person variance) over time during the follow-up interviews.

Based on insights gained from the above-mentioned SID and a review of the extant literature, the emerging structural model was presented (Figure 4.4). The emerging structural model subsumes 14 propositions. It is important to mention that four affinities that were identified during Part 1 of the qualitative phase were excluded from the emerging structural model in the interest of model parsimony. These affinities are social context of the neighbourhood, parental attitudes, perceived organisational justice and school facilities and teaching resources. The researcher was confident that the exclusion of these affinities would not compromise the substantive meaningfulness of the emerging structural model.

7.3. Summative Remarks Regarding the Quantitative Phase (Part 3)

The quantitative phase of the study was intended to evaluate the emerging structural model (Figure 4.4) quantitatively, making specific reference to contextual, organisational, job and individual antecedents that explain between-person variance in employee engagement among public school teachers in the Western Cape Province. To put it differently, it was intended to

evaluate the propositions (i.e. Propositions 1 through 14) that were formulated based on the relational dynamics that were identified among the most salient antecedents that explain variance in employee engagement among public school teachers in the Western Cape Province (i.e. Parts 1 and 2) and a review of the extant literature.

In consideration of foreseeable practical constraints associated with data collection (e.g. logistical and financial implications of distributing a paper-pencil questionnaire), a web-based survey was distributed among approximately 1 824 teachers employed in 76 public schools in the Western Cape Province to gather primary data for the purpose of the quantitative phase. After the deletion of incomplete responses ($n = 165$), the sample comprised of 353 teachers from fee schools ($n = 321$ (91 percent)) and no-fee schools ($n = 31$ (9 percent))⁴⁰.

Unexpectedly, the average total mean score obtained for employee engagement was 4.31 ($SD = 0.99$). This suggests that public school teachers in the Western Cape Province feel engaged in their work at least once a week. The researcher anticipated that teachers, who are engaged in their work, were more likely to participate in the study compared to their counterparts. This may have inflated the total mean score obtained. For this reason, she advised that it should be interpreted with caution.

VB-SEM, also known as soft-based modelling, was performed in the quantitative phase to evaluate the emerging structural model (Henseler et al., 2009). The R^2 value and R^2 adjusted value that was reported for employee engagement suggest that the total structural model accounts for between 55 and 56 percent of the variance observed in employee engagement among public school teachers in the Western Cape Province. In consideration of the primary objective of the study, the researcher concluded that this was satisfactory.

In the path diagram of the emerging structural model (Figure 6.2) the statistical significance of the path coefficients was evaluated at the 95 percent confidence level. Propositions 1, 2, 3, 4, 5a, 7a, 7c, 8a, 9, 11, 12, 13 and 14 were supported, while Propositions 5b, 5c, 5d, 6a, 6b, 6c, 6d, 7b, 7d, 8b, 8c, 8d and 10 were not supported.

⁴⁰ As mentioned, participants were not forced to respond to each question in the web-based survey. The demographic and employment information of participants in the quantitative phase is, therefore, presented based on the responses obtained.

In terms of teacher-level determinants, the above-mentioned results indicated that teaching motivation has a significant positive influence on employee engagement (Proposition 1: PLS path coefficient = .41) and psychological capital (Proposition 2: PLS path coefficient = .33); emotional intelligence has a significant positive influence on work locus of control (Proposition 3: PLS path coefficient = .46), direct action (Proposition 7a: PLS path coefficient = .36), seeking emotional support (Proposition 7c: PLS path coefficient = .26) and student-teacher relationships and interactions (Proposition 12: PLS path coefficient = .40); work locus of control has a significant positive influence on psychological capital (Proposition 4: PLS path coefficient = .39); psychological capital has a significant positive influence on direct action (Proposition 5a: PLS path coefficient = .27); and direct action has a significant positive influence on employee engagement (Proposition 8a: PLS path coefficient = .12).

In terms of school-level determinants, the above-mentioned results showed that perceived workload has a significant negative influence on employee engagement (Proposition 9: PLS path coefficient = -.14) and teaching motivation (Proposition 14: PLS path coefficient = -.18); and student-teacher relationships and interactions have a significant positive influence on employee engagement (Proposition 11: PLS path coefficient = .34) and teaching motivation (Proposition 13: PLS path coefficient = .27).

Based on the results of the quantitative phase, the researcher concluded that the teacher- and school-level determinants that were identified during the qualitative phase of the study explain variance in employee engagement among public school teachers in the Western Cape Province either directly or indirectly.

7.4. Theoretical Conclusions Emanating from the Study

The theoretical conclusions that were made based on the results of the study will be deliberated below.

7.4.1. Central tenets of the job demands-resources model

Based on insights gained during the qualitative phase (i.e. Parts 1 and 2) and a review of the extant literature, propositions (i.e. Propositions 1 through 14) were formulated, which culminated in the emerging structural model (Figure 4.4). These propositions corresponded with the central tenets of the JD-R model, which laid the theoretical foundation of the study.

By implication, the propositions that were supported showed support for the central tenets of the JD-R model (Demerouti et al., 2001).

Firstly, the researcher proposed that job demands have a negative influence on the level of engagement that teachers experience, while job resources have a positive influence on the level of engagement that teachers experience. In line with this, the quantitative results showed that perceived workload has a significant negative influence on employee engagement (Proposition 9: PLS path coefficient = $-.14$), while student-teacher relationships and interactions have a significant positive influence on employee engagement (Proposition 11: PLS path coefficient = $.34$).

The researcher added that job demands are negatively related to personal resources, while job resources are positively related to personal resources. These notions were supported by the quantitative results, which indicated that perceived workload has a significant negative influence on teaching motivation (Proposition 14: PLS path coefficient = $-.18$), and student-teacher relationships and interactions have a significant positive influence on teaching motivation (Proposition 13: PLS path coefficient = $.27$).

Thirdly, the researcher hypothesised that personal resources have a positive influence on the level of engagement that teachers experience. In accordance with this, the quantitative results demonstrated that teaching motivation has a significant positive influence on employee engagement (Proposition 1: PLS path coefficient = $.41$).

The researcher added that personal resources are positively related to job resources. This notion was supported by the quantitative results, which revealed that emotional intelligence has a significant positive influence on student-teacher relationships and interactions (Proposition 12: PLS path coefficient = $.40$).

Fifthly, the researcher proposed that personal resources are instrumental in the subjective selection and use of coping strategies. She suggested that personal resources influence teachers' cognitive appraisal of what is happening in their work environment and, in turn, the coping strategies that they adopt to master, manage or tolerate the demands that they encounter. In line with this, the quantitative results showed that emotional intelligence has a significant positive influence on direct action (Proposition 7a: PLS path coefficient = $.36$) and seeking emotional support (Proposition 7c: PLS path coefficient = $.26$), and psychological capital has a significant positive influence on direct action (Proposition 5a: PLS path coefficient = $.27$).

Lastly, the researcher hypothesised that teachers' coping strategies influence the level of engagement that they experience. This notion was supported by the quantitative results, which indicated that direct action has a significant positive influence on employee engagement (Proposition 8a: PLS path coefficient = .12).

7.4.2. Within-person variance in employee engagement

Schaufeli et al. (2002, p. 74) suggested that employee engagement is “a more persistent and pervasive affective-cognitive state that is not focussed on any particular object, event, individual, or behaviour”. Although researchers traditionally highlighted between-person variance in employee engagement (i.e. trait-like employee engagement), as mentioned in Chapter 2, recent research has shown that within-person variance in employee engagement (i.e. state-like employee engagement) also occurs (e.g. Tims et al., 2011; Van Woerkom et al., 2016). In response to this, researchers have begun to examine employee engagement from a variety of time perspectives, ranging from the trait perspective (i.e. between-person variance) to the state perspective (i.e. within-person variance). In accordance with this, the qualitative phase (i.e. Part 2) explored between-person, as well as within-person variance in employee engagement among public school teachers in the Western Cape Province.

The qualitative results directed attention to the dynamic nature of employee engagement, thereby demonstrating support for the above-mentioned notion of within-person variance in employee engagement. As mentioned in Chapter 4, participants themselves distinguished between the trait perspective of employee engagement and the state perspective of employee engagement during the follow-up interviews. The majority of participants explained that they are not equally engaged in their work across all days (or weeks). They alluded to a general level of engagement that they experience in their work (i.e. trait-like engagement) that is subject to momentary fluctuations (i.e. state-like engagement). As an illustration, teachers, who experience a high level of engagement on most days, may experience a low level of engagement from time to time.

The researcher concludes that the qualitative results correspond with Kahn's (1990) suggestion that employee engagement is continually changing, depending on the characteristics of a particular work activity. She recommends that it is, therefore, necessary to account for between-person and within-person variance in research that examines the engagement

phenomenon in order to fully understand the complexity (i.e. dynamic and stable properties) of employee behaviour.

7.4.3. Episodic job demands and job resources

In line with the notion of within-person variance in employee engagement, the qualitative results revealed that school-level determinants also fluctuate over time. More specifically, it showed that demanding or resourceful school-level determinants (i.e. job demands and job resources) are subject to short-term (e.g. momentary, daily or weekly), as well as longer-term (e.g. monthly, seasonally or yearly), fluctuations. This corresponds with Daniels' (2006) notion that generalised perceptions of job characteristics must be distinguished from enacted job characteristics, as well as Ten Brummelhuis and Bakker's (2012) notion that volatile job demands and job resources should be distinguished from structural job demands and job resources.

The above-mentioned results also directed attention to micro-processes in the JD-R model (Bakker & Demerouti, 2017). It showed that the health impairment process and the motivational process occur at an episodic level. In other words, episodic job resources (i.e. social and structural resources) and challenging job demands are positively related to episodic employee engagement. Episodic hindering job demands, on the other hand, are negatively related to episodic employee engagement. As an example, when teachers experience positive student-teacher relationships and interactions on a specific day (i.e. episodic social job resource), they may be more likely to experience a higher level of engagement on that day (i.e. episodic employee engagement). This corresponds with recent research conducted by Bakker and Demerouti (2017).

Bakker and Demerouti (2017) suggested that the episodic performance model and the JD-R model should be integrated to understand how fluctuations in job demands and job resources influence employee engagement. The episodic performance model contextualises the influence of job demands and job resources on employee engagement during performance episodes. It suggests that employees thematically organise their days into performance episodes. The effectiveness of their performance during a particular performance episode is dependent on both momentary, as well as relatively stable, factors that influence the accomplishment of work activities (Beal et al., 2005). By extrapolating from the episodic performance model, Bakker and Demerouti (2017) explained that during a performance episode, fluctuations in job

demands and job resources influence the level of engagement that employees experience and, in turn, their job performance.

With reference to the foregoing comments, the researcher concludes that the qualitative results offered valuable insight into specific work conditions (i.e. job demands and job resources) that activate positive affective experiences and, in turn, explain within-person variance in employee engagement. For this reason, she recommends that it is necessary to account for fluctuations in job demands and job resources in research that examines the engagement phenomenon. As Bakker and Demerouti (2017, p. 280) stated, “Combining JD-R theory with the situational specificity of performance episodes may result in better predictions and fruitful insights regarding the specific conditions (constellations of job demands and job resources) that trigger positive affective experiences and facilitate effective performances”.

7.4.4. Contextual demands and contextual resources

Research has primarily investigated the associations between employee engagement, work conditions (i.e. job demands and job resources), personal resources and individual strategies (i.e. job crafting and self-undermining). This corresponds with the JD-R model. The broad definition of job demands and job resources, as proposed by the JD-R model, has allowed researchers to examine various demand and resource dimensions. Within the boundaries of the distinction between these work conditions, researchers have distinguished between different types of job demands and job resources, such as quantitative, emotional and mental job demands (e.g. Peeters et al., 2005; Van Den Broeck et al., 2008).

While the above-mentioned and other distinctions have been valuable, it is evident that researchers have primarily focussed on demand and resource dimensions that arise from work conditions. As mentioned in Chapter 2, a moment's thought helps one realise that environmental, political and social forces outside the work domain also contribute to the job demands and job resources that employees encounter in the workplace. For this reason, researchers have begun to acknowledge that demand and resource dimensions may also emerge from external environments.

An external environment that has received increased attention in the field of industrial and organisational psychology is the home environment. A number of researchers have directed attention to family demands and resources (e.g. Du et al., 2018; Watanabe et al., 2017). Ten Brummelhuis and Bakker (2012) remarked that Bronfenbrenner's (1977) ecological systems

theory could be used as a conceptual framework to explain how contextual demands and contextual resources emanate from the home environment. Ten Brummelhuis and her colleague recommended that a systems approach, in line with Bronfenbrenner's (1977) ecological systems theory, offers valuable insight into the work-home interface.

By extrapolating from the above-mentioned studies, the researcher proposed that the definition of job demands and job resources within the parameters of the JD-R model must be extended to include contextual demands and contextual resources. In accordance with Ten Brummelhuis and Bakker (2012), she adopted a systems approach, in line with Bronfenbrenner's (1977) ecological systems theory, to achieve this objective.

The qualitative results demonstrated support for the notion that the definition of job demands and job resources within the parameters of the JD-R model must be extended to include contextual demands and contextual resources. In addition to teacher-level determinants (i.e. personal resources and individual strategies) and school-level determinants (i.e. job demands and job resources), the qualitative results revealed that contextual demands and contextual resources that emanate from external environments, apart from the school environment, make a significant incremental contribution to variance in employee engagement among public school teachers in the Western Cape Province. As mentioned in Chapter 4, these community-level determinants (i.e. parental attitudes and social context of the neighbourhood) and societal-level determinants (i.e. perceived organisational justice) of employee engagement were categorised as either contextual demands or contextual resources.

The researcher concludes that including contextual demands and contextual resources within the parameters of the JD-R model offers a more comprehensive framework to understand the antecedents of variance in employee engagement. As opposed to focussing on demands and resources emanating from the work environment (and personal resources), she recommends that it is necessary to consider demands and resources that emanate from external environments.

7.4.5. Socio-ecological model of employee well-being

Although the socio-ecological perspective has been adopted in the medical sciences for a number of years, it is not common in the field of industrial and organisational psychology. However, in accordance with recent research (e.g. Jenkins & Delbridge, 2013; Rothmann, 2014), the qualitative results have shown that context influences employee engagement and its

antecedents. For this reason, the researcher suggests that it is important to adopt a socio-ecological perspective when studying employee well-being. She is confident that the adoption of the socio-ecological perspective promises to yield valuable insight into the antecedents that explain variance in constructs that relate to employee well-being, such as employee engagement, as it directs attention to the interaction effects between person-specific and environmental leverage points and intermediaries.

In line with the socio-ecological principle of identifying person-specific and environmental leverage points and intermediaries that influence outcomes of interest (Stokols, 1996), the study identified antecedents of variance in employee engagement among public school teachers in the Western Cape Province that emanate from teachers themselves and the environment that surrounds them. As mentioned in Chapter 4, the qualitative results showed that teacher-, school-, community- and societal-level determinants explain variance in employee engagement among public school teachers in the Western Cape Province. This implies that multilevel socio-ecological antecedents explain variance in employee engagement. Bronfenbrenner's (1977) ecological systems theory was used to frame these determinants in the study (Figure 4.3).

The above-mentioned results correspond with Bandura's (1978) principle of reciprocal determinism. Although explanations for human behaviour traditionally relied upon unidirectional causal models that directed attention to either person-specific and environmental determinants of human behaviour, Bandura proposed that human behaviour both influences and is influenced by personal factors and the social environment. He referred to triadic reciprocal causation to describe the mutual influence between three sets of factors. These factors are personal factors, the environment and human behaviour.

With reference to the foregoing comments, the researcher recommends that it is important to adopt a socio-ecological perspective when studying employee well-being, such as employee engagement. In other words, it is important to adopt a holistic approach, which focusses on both employees (i.e. person-specific factors) and their environment (i.e. environmental factors). This promises to ensure that researchers identify ecologically valid human resource practice and interventions to foster employee well-being.

7.5. Managerial Implications of the Study

The researcher claims that a systematic, planned evidence-based approach is needed to foster employee engagement among public school teachers in the Western Cape Province. Although

a plethora of human resource practices and interventions that are intended to foster employee engagement among employees are mentioned throughout literature (e.g. Albrecht et al., 2015; Mone & London, 2018), the following section will discuss the managerial implications based on the results of the qualitative phase (i.e. Parts 1 and 2), as well as the quantitative phase (i.e. Part 3), of the study. The managerial implications are intended to inform the development and implementation of human resource practices and interventions to foster employee engagement among public school teachers and, in turn, improve the quality of basic education offered in many public schools.

The researcher will divide the above-mentioned managerial implications into four categories in accordance with Bronfenbrenner's (1977) ecological systems theory. These categories are teacher-, school-, community- and societal-level implications.

As highlighted throughout the discussion of the proposed managerial implications below, it is imperative to adopt a public-private partnership model and strengthen partnerships among stakeholders that influence the efficiency and performance of the South African education system either directly or indirectly. These stakeholders include public schools, tertiary institutions, the government (i.e. local, national and regional levels) and non-governmental organisations. The researcher believes that it is only through the adoption of a public-private partnership model, aimed at promoting, developing and implementing policies and programmes that promise to foster the employee engagement among public school teachers, that we will be able to facilitate and collectively address challenges associated with the quality of basic education offered in many public schools across South Africa.

Notably, academic research will need to be brought to the proposed managerial implications. The researcher suggests that academic research, specifically programme evaluation, should be conducted to determine whether the human resource practices and interventions that are proposed, based on the results of the study, have achieved their intended consequences and how they might be refined (i.e. intervention studies). She contends that tertiary institutions are well positioned as research institutions to ensure the effective management of such activities. By conducting this particular academic research, tertiary institutions may contribute to the extant body of knowledge that is needed to support and evaluate the proposed managerial implications and, in turn, improve the quality of basic education offered in many public schools.

7.5.1. Teacher-level implications

Based on the results obtained during the qualitative phase (i.e. Parts 1 and 2) and a review of the extant literature, teacher-level determinants include teaching motivation, personal characteristics (i.e. psychological capital, emotional intelligence and work locus of control) and coping strategies. As mentioned in Chapter 4, within the parameters the JD-R model, the researcher operationalised these determinants as personal resources (Xanthopoulou et al., 2007) and effective coping strategies (Tims et al., 2013) that reduce job stress and positively influence employee engagement among public school teachers in the Western Cape Province.

The researcher recommends that it is necessary to develop and implement human resource practices and interventions that cultivate each of the above-mentioned teacher-level determinants among students who intend to study toward a bachelor's degree or postgraduate diploma in education, as well as newly qualified and in-service teachers. To achieve this objective, she directs attention to the recruitment and selection, training and development, job design and mentoring of students and teachers.

7.5.1.1. Recruitment and Selection of Students

To address challenges with teacher attrition in South Africa, the Department of Basic Education introduced the Funza Lushaka bursary programme in 2007 (Department of Basic Education, 2018). Since its implementation, this bursary programme has funded the tertiary education of countless aspiring teachers. While it has been successful in attracting students who intend to study toward a bachelor's degree or postgraduate diploma in education, the researcher advises that the Department of Basic Education should amend the selection criteria that are currently used to award bursaries. She advocates that rigorous selection criteria are required to screen applicants and award bursaries effectively.

At this point in time, "Any academically gifted, young - learners, currently in Grade 12; graduates who want to complete a teaching qualification (enrol for a postgraduate diploma in education); people who want to make a career change and become teachers; and unemployed people who want to become teachers" are eligible to apply for Funza Lushaka bursaries (Department of Basic Education, 2018). In accordance with the results of the study, the researcher suggests that teacher-level determinants should be integrated into the selection criteria. She recommends that administrators of the Funza Lushaka bursary programme should consider whether applicants exhibit a desirable level of teaching motivation (i.e. calling

orientation), desirable personal characteristics (i.e. positive psychological capital, high emotional intelligence and internal work locus of control) and effective coping strategies (i.e. direct action). Adopting such a strengths-based approach to the recruitment and selection of applicants may enhance the quality of Funza Lushaka bursars and, in turn, foster employee engagement among public school teachers.

The researcher advises that it is equally important to amend the admission criteria that are currently used to screen students who intend to study toward a bachelor's degree or postgraduate diploma in education at tertiary institutions. In line with the above-mentioned recommendation, she proposes that admissions officers of tertiary institutions should consider whether students exhibit a desirable level of teaching motivation (i.e. calling orientation), desirable personal characteristics (i.e. positive psychological capital, high emotional intelligence and internal work locus of control) and effective coping strategies (i.e. direct action).

Self-report standardised questionnaires may be used to assess the teaching motivation, personal characteristics and coping strategies of applicants and students. These questionnaires may either be administered in a paper-and-pencil or electronic format depending on the resources that are available to administrators of the Funza Lushaka bursary programme and admission officers of tertiary institutions. The researcher suggests that these individuals must be trained to probe for evidence of teacher-level determinants during individual interviews with applicants and students and, if necessary, during reference checking to evade challenges of deliberate misrepresentation (i.e. faking behaviour) that are associated with self-report standardised questionnaires (Coulacoglou & Saklofske, 2017).

7.5.1.2. Recruitment and Selection of Teachers

Teacher supply and demand is a national issue. The shortage of qualified teachers hampers the effective functioning of public schools. As a result, the Department of Basic Education has opted to appoint teachers who are unqualified or under-qualified. While this may alleviate challenges associated with teacher attrition in the short-term, as mentioned in Chapter 1, Graeme Bloch warned that this might exacerbate challenges associated with the quality of basic education in South Africa in the long-term (Hawker, 2013). The researcher endorses this notion. She advises that larger governing bodies and school governing bodies must refrain from appointing unqualified and under-qualified teachers.

In addition to ensuring that newly qualified and in-service teachers have received adequate post-school education and training, the researcher proposes that human resource officers of larger governing bodies and members of school governing bodies should also adopt a strengths-based approach to their recruitment and selection. This corresponds with the above-mentioned recommendation regarding the recruitment and selection of students who intend to study toward a bachelor's degree or postgraduate diploma in education at tertiary institutions. Lobene and Meade (2013) and Saraf and Murthy (2016) supported this notion. These researchers advised that the selection criteria that are used to screen newly qualified and in-service teachers must not only concentrate on their teaching skills and qualifications. It should also consider their psychological characteristics.

In accordance with the above-mentioned recommendation, the researcher recommends that self-report standardised questionnaires may be used to assess the teaching motivation, personal characteristics and coping strategies of newly qualified and in-service teachers.

7.5.1.3. Training and Development of Students

As opposed to only adopting a disposition-determined perspective to teacher-level determinants among students who are studying toward a bachelor's degree or postgraduate diploma in education, the researcher claims that it is equally important to adopt a developmental perspective. In line with this, she directs attention to the importance of facilitating training and development interventions as part of the curriculum of initial teacher education programmes, as well as postgraduate diplomas in education, to cultivate positive psychological capital (i.e. hope, optimism, resilience and self-efficacy), high emotional intelligence and effective coping strategies among students.

The possibility of developing personal resources, such as psychological capital and emotional intelligence, through training and development interventions has attracted a great deal of attention among researchers and practitioners alike. As mentioned in Chapter 2, research has shown that positive psychological capital (i.e. hope, optimism, resilience and self-efficacy) can be developed through training and development interventions (e.g. Dello-Russo & Stoykova, 2015; Luthans et al., 2008). As an illustration, an intervention study conducted by Barry, Woods, Martin, Sterling and Warnecke (2016) among 81 doctoral students showed that doctoral students, who participated in an intervention programme that consisted of a daily

mindfulness exercise over a period of eight weeks, were more likely to report positive psychological capital (i.e. hope, resilience and self-efficacy).

Comparable results have been reported with regard to the development of high emotional intelligence (e.g. Groves et al., 2008; Kirk et al., 2011). To take a case in point, an intervention study conducted by Al Faouri, Al Ali and Al Shorman (2014) among 70 nurses in Jordan showed that nurses, who participated in an intervention programme that consisted of a two-hour training session per week over a period of seven weeks, were more likely to report high emotional intelligence.

While it may be a desirable strategy to provide all employees, including public school teachers, with an inherently less stressful work environment through the implementation of organisationally-based preventative strategies, this is improbable. It is, therefore, to be expected that the possibility of developing effective coping strategies among employees has also attracted a great deal of attention in the extant literature. In accordance with this, in addition to training and development interventions that cultivate positive psychological capital and high emotional intelligence, the researcher advises that stress inoculation training (Meichenbaum, 2007) may be beneficial to students who are studying toward a bachelor's degree or postgraduate diploma in education.

Various intervention studies have examined stress inoculation training in groups and shown support for its effectiveness. For example, an intervention study conducted by Jamshidifar, Moghadam and Mohammadzadeh (2014) among 30 students in Iran showed that students, who participated in a stress inoculation intervention programme that consisted of a 1 hour and 30 minutes training session per week over a period of eight weeks, were more likely to report lower levels of perceived stress. Similar results were reported by Cecil and Forman (1990) among 54 teachers.

As illustrated by the foregoing comments, the above-mentioned intervention studies have adopted different approaches to the development of teacher-level determinants. While some intervention programmes were didactic and skills-based, other intervention programmes involved self-reflection and mindfulness exercises. What is more, the intervention programmes also differed in terms of their length. In consideration of this, the researcher recommends that pilot studies should be conducted to determine the content and duration of training and development interventions that are intended to cultivate positive psychological capital (i.e.

hope, optimism, resilience and self-efficacy), high emotional intelligence and effective coping strategies among students prior to their implementation.

In accordance with emerging trends in the field of industrial and organisational psychology, the researcher proposes that the principles of gamification be applied to the development and implementation of training and development interventions. Gamification involves the use of game-based mechanics to promote the acquisition of knowledge, skills and abilities (Kapp, 2012). The researcher is confident that the appropriate use of gamification in training and development interventions may make it more compelling to students and enhance their participation rates.

7.5.1.4. Training and Development of Teachers

Along the same lines as the above-mentioned recommendation, the researcher claims that it is equally important to adopt a developmental perspective to teacher-level determinants among newly qualified and in-service teachers. For this reason, she directs attention to the importance of developing and implementing training and development interventions to cultivate positive psychological capital (i.e. hope, optimism, resilience and self-efficacy), high emotional intelligence and effective coping strategies among teachers. This corresponds with an intervention study conducted by Van Wingerden, Derks and Bakker (2017) among 26 special education primary school teachers. Van Wingerden and her colleagues found that teachers, who participated in a personal resources intervention that consisted of three training sessions over a period of six weeks, were more likely to be engaged in their work compared to their counterparts.

The researcher recommends that this can be achieved by leveraging the platform, which the Western Cape Department of Education has created through the introduction of the Cape Teaching and Leadership Institute (CTLI). The CTLI was introduced in 2002 to enhance the quality of teaching and learning processes offered in all public schools across Western Cape. It renders training and development services that are intended to empower professionals from each professional category (i.e. department heads, deputy principals, principals and teachers) in the education system (De Chaisemartin, 2010). Regrettably, none of the courses that are currently offered by the CTLI addresses the teacher-level determinants that were identified based on the results obtained during the qualitative phase and a review of the extant literature.

In addition to the CTLI, the researcher suggests that the South African Council of Educators (SACE) signifies another platform that can be used to cultivate positive psychological capital (i.e. hope, optimism, resilience and self-efficacy), high emotional intelligence and effective coping strategies among newly qualified and in-service teachers. The SACE is the professional council for teachers in South Africa. One of its sub-divisions, the professional development and research division, is responsible for the implementation of the continuous professional training and development management system across all provinces. This sub-division collaborates with relevant directorates in each provincial department of education to coordinate the implementation of continuous professional training and development activities.

7.5.1.5. Job Design of Teachers

As opposed to the above-mentioned teacher-level determinants (i.e. psychological capital, emotional intelligence and coping strategies), work locus of control is relatively stable over time. As mentioned in Chapter 2, Rotter's (1966) conceptualisation of locus of control implies that it is a dispositional trait. However, as mentioned in Chapter 2, research has shown that locus of control can be developed (e.g. Wu et al., 2015). As an illustration, a longitudinal study conducted by Anderson (1977) among 90 small business owners demonstrated that improved firm performance was positively related to internal locus of control. Similarly, analyses conducted by Andrisani and Nestel (1976) on data from the National Longitudinal Survey in the United State of America's representative national sample of middle-aged males showed that improved occupational status was positively related to internal locus of control.

The above-mentioned studies demonstrate that employees' work experiences shape their locus of control. More specifically, it shows that employees develop an internal locus of control when their work environment supports their sense of agency (e.g. autonomy). By extrapolating from these studies, the researcher suggests that it is possible to cultivate an internal work locus of control among newly qualified and in-service teachers by increasing their job autonomy through empowerment programmes and work design interventions (e.g. self-managed subject teams). Increasing the job autonomy of newly qualified and in-service teachers promises to support their sense of agency and, in turn, cultivate an internal work locus of control. This corresponds with Parker's (2014, p. 685) notion that enriched work design possesses "untapped potential" as a vehicle for adult learning and development.

Research has shown that human resource practices and interventions that involve job design are positively related to employee engagement, particularly through its influence on job resources. As an illustration, an intervention study conducted by Holman and Axtell (2016) among 107 call centre agents showed that a job redesign intervention (i.e. feedback and job control) influenced a number of physical and psychological health outcomes of employees (e.g. employee well-being and psychological contract fulfilment). Comparable results were reported by Alfes, Shantz, Truss and Soane (2013) among 297 employees from a service sector organisation in the United Kingdom.

7.5.1.6. Mentoring of Teachers

Based on the information gathered during the qualitative phase of the study, the researcher suggests that it is plausible that many newly qualified and in-service teachers do not exhibit a desirable level of teaching motivation (i.e. calling orientation), desirable personal characteristics (i.e. positive psychological capital, high emotional intelligence and internal work locus of control) or effective coping strategies (i.e. direct action). In consideration of this, she directs attention to the importance of developing and implementing mentoring programmes within public schools to help address this challenge.

The researcher proposes that experienced in-service teachers should be appointed to mentor all newly qualified teachers during the liminal period of graduating from tertiary institutions and entering the teaching occupation. Research has shown that newly qualified teachers often feel unsupported, isolated and overwhelmed by the scope of their job (e.g. Buchanan et al., 2013; Struyven & Vanthournout, 2014). Participants from both constituencies recalled similar experiences during the initial interviews. The researcher anticipates that mentoring may help to circumvent the development of such feelings by cultivating desirable personal characteristics (i.e. positive psychological capital, high emotional intelligence and internal work locus of control) and effective coping strategies (i.e. direct action) among newly qualified teachers. What is more, it may also help to retain institutional knowledge that is frequently lost once in-service teachers retire.

The researcher suggests that mentoring is not only important among newly qualified teachers. She claims that peer mentoring is equally beneficial among in-service teachers during the subsequent stages of their career. As Holbeche (1996, p. 25) explained, peer mentoring involves “a developmental relationship with the clear purpose of supporting the individuals

within it to achieve their job objectives”. In accordance with this, the researcher advises that peer mentors should be assigned to all in-service teachers.

The researcher recognises that some public schools have already developed and implemented mentoring programmes to support all newly qualified teachers. However, based on the information gathered during the initial interviews, she concluded that the majority of public schools do not offer mentoring to newly qualified or in-service teachers. She recommends that the necessity of the development and implementation of mentoring programmes within public schools must be encouraged and monitored by larger governing bodies.

Notably, Holbeche (1996, p. 25) explained that peer mentoring occurs “where two, three or more individuals agree to have a development relationship with one another which may involve occasional or regular meetings, phone calls, exchanges of information and specific forms of support which go beyond networking”. By drawing on Holbeche’s definition, the researcher contends that peer mentoring does not have to be confined to the boundaries of a particular public school. In accordance with this, she recommends that larger governing bodies must also encourage peer mentoring across the boundaries of public schools within a particular education district. This promises to provide in-service teachers with a suitable platform to exchange ideas and strategies that may be used to respond to the demands that they encounter (i.e. job and contextual demands) and build resources (i.e. job, contextual and personal resources) effectively.

To overcome foreseeable practical constraints (i.e. logistical and time implications) associated with the above-mentioned recommendation, the researcher proposes that online platforms may be created to facilitate peer mentoring across the boundaries of public schools within a particular education district.

7.5.2. School-level implications

Based on the results obtained during the qualitative phase (i.e. Parts 1 and 2) and a review of the extant literature, school-level determinants include school climate, perceived workload, student-teacher relationships and interactions and school facilities and teaching resources. As mentioned in Chapter 4, in terms of Schaufeli and Taris' (2014) refined definition of job demands and job resources within the parameters of the JD-R model, these determinants signify job demands (i.e. perceived workload) and job resources (i.e. school climate, student-teacher relationships and interactions and school facilities and teaching resources).

The researcher recommends that it is necessary to develop and implement human resource practices and interventions that cultivate each of the above-mentioned school-level determinants in public schools. She will direct attention to the standardisation of initial teacher education, collaborative service delivery in public schools and allocation of school facilities and teaching resources.

7.5.2.1. Standardisation of Initial Teacher Education Programmes

South Africa has a large and complex teacher education system. There are a number of tertiary institutions that offer initial teacher education programmes and postgraduate diplomas in education. Regrettably, initial teacher education programmes and postgraduate diplomas in education are highly unstandardised, and their quality is fundamentally unequal at a national level. The Initial Teacher Education Research Project, which was launched by the Joint Education Trust Education Services, reviewed the curriculum of initial teacher education programmes offered by five tertiary institutions across South Africa. The results indicated that the curriculum of the initial teacher education programmes lacked a strong underlying logic and structural or conceptual coherence. What is more, the curriculum of the initial teacher education programmes varied considerably in terms of their focus on subject content knowledge and teaching practice (Deacon, 2016). This not only threatens to perpetuate prejudiced education in South Africa. Within the context of the study, it also does not attend to challenges associated with teacher professionalism.

The researcher claims that one of the best safeguards to ensure teacher professionalism (i.e. school climate) among public school teachers is to ensure that all teachers are equally capable. She proposes that this can be achieved by standardising initial teacher education programmes and postgraduate diplomas in education in South Africa. In other words, tertiary institutions need to consolidate their programmes and diplomas into a single, comprehensive system of teacher education. Some of the top-performing education systems, such as Singapore, have already adopted this approach (Smuts, 2018).

The researcher acknowledges that the Department of Higher Education introduced the Minimum Requirements for Teacher Education Qualifications (MRTEQ) in 2015 to ensure that tertiary institutions produce teachers that are of high quality (Deacon, 2016). Although the minimum requirements that are outlined in the MRTEQ may help to ensure that all teachers are equally capable, the researcher proposes that a nationally consistent accreditation system

should be implemented to standardise initial teacher education programmes and postgraduate diplomas in education. Such an accreditation system should involve the accreditation of tertiary institutions that offer programmes and diplomas, as well as their curricula.

7.5.2.2. Collaborative Service Delivery

The results of the study revealed that public school teachers in the Western Cape Province are often expected to perform illegitimate tasks (i.e. unnecessary tasks and unreasonable tasks), which contribute to their workload (i.e. quantitative workload and qualitative workload). Participants from both constituencies described some of their tasks as unreasonable, because these work tasks exceeded the level of responsibility that can normally be expected of public school teachers. Participants stated that they do not possess the knowledge, skills or abilities to perform these work tasks adequately.

To address challenges associated with the performance of unreasonable tasks, the researcher recommends that the Western Cape Department of Education and relevant government departments (e.g. Department of Social Development) should take reasonable steps to ensure that professionals from different areas of specialisation participate in transdisciplinary teams in public schools. More specifically, she recommends that each public school should have access to a medical practitioner, audiologist, speech-language therapist, psychologist (i.e. counselling psychologist or educational psychologist) and social worker. These professionals represent educational resources that should coordinate their efforts to assess students' physical and emotional needs and implement strategies to prevent school maladjustment. This promises to not only alleviate challenges associated with illegitimate tasks among public school teachers, but also offer professionals with diverse expertise and backgrounds the opportunity to generate innovative solutions to students' needs.

The above-mentioned professionals may use a variety of service delivery models to provide services in public schools. Although these professionals typically work independently, the researcher proposes that an alternative service delivery model should be used in public schools. This service delivery model, known as collaborative service delivery, focusses on the role of a teacher as a member of a transdisciplinary educational team (Woodruff & McGonigel, 1988).

The collaborative service delivery model differs from multidisciplinary and interdisciplinary service delivery models in terms of the purpose, amount and effect of collaboration among its members. The collaborative service delivery model is thought of as a transdisciplinary

approach, as it attempts to overcome the boundaries that exist among individual disciplines. This service delivery model assumes that one professional cannot possess the knowledge, skills or abilities that are required to execute all the work tasks that are associated with providing educational services to students. Even though teachers remain integral members of educational teams and are actively involved in all levels of service provision, they are not the only responsible members. To make meaningful decisions and provide adequate educational services to students, professionals and paraprofessionals must communicate and collaborate with one another (Woodruff & McGonigel, 1988).

Probably the first question that comes to mind regarding the application of the collaborative service delivery model in public schools concerns the cost involved in leveraging the expertise of the above-mentioned professionals. The researcher directs attention to community service and internships that the majority of these professionals are expected to complete before their registration with relevant professional councils (e.g. Health Professions Council of South Africa and South African Council for Social Service Professions). She proposes that relevant professional councils must encourage professionals to complete part of their community service and internship in public schools.

7.5.2.3. Allocation of School Facilities and Teaching Resources

The South African education system is plagued by the widespread systemic and continuing failure to provide adequate school facilities and teaching resources to public schools. In 2011 and 2014, the National Infrastructure Management System Report showed that many public schools are expected to operate without adequate school facilities and teaching resources (John, 2014). In these instances, public school teachers struggle to provide quality instruction that students are legally entitled to receive. Financial and other resource constraints, therefore, inhibit the provision of quality basic education for all South Africans.

The researcher recognises that Motshekga introduced legally binding Norms and Standards for School Infrastructure in 2013, which stipulates the basic level of infrastructure that every public school must have to function effectively (Department of Basic Education, 2013a). The introduction of the Norms and Standards for School Infrastructure was of great significance, as it meant that all students would be able to learn in environments with adequate school facilities and teaching resources. However, since its introduction, the Department of Basic Education has not set a cohesive plan to enact these legally binding regulations.

The researcher suggests that targeted action is needed to address deficiencies in school facilities and teaching resources. In accordance with Equal Education, she proposes that the Department of Basic Education must develop an implementation plan for the Norms and Standards for School Infrastructure. Such a plan must stipulate incremental periods that outline the extent to which deficiencies in school facilities and teaching resources should be eradicated. Furthermore, the researcher advises that the Department of Basic Education must put in place internal controls to increase accountability and transparency concerning the allocation of financial and other resources in public schools (Equal Education, 2016).

7.5.3. Community-level implications

Based on the results obtained during the qualitative phase (i.e. Parts 1 and 2) and a review of the extant literature, community-level determinants include the social context of the neighbourhood and parental attitudes. As mentioned in Chapter 4, these determinants could not be classified within the parameters of the existing JD-R model (Demerouti et al., 2001). By extrapolating from recent research (e.g. Collie et al., 2017; Collie et al., 2012), the social context of the neighbourhood and parental attitudes were operationalised as contextual resources in the study.

The researcher recommends that it is necessary to develop and implement human resource practices and interventions that cultivate the above-mentioned community-level determinants in the communities that surround public schools. To achieve this objective, she directs attention to the placement of students who are studying toward a bachelor's degree or postgraduate diploma in education, as well as newly qualified and in-service teachers, and the allocation of resources that promote safety and security in public schools.

7.5.3.1. Placement of Students during Teaching Practice

Teaching practice represents an integral component of initial teacher education programmes and postgraduate diplomas in education (Maphosa, Shumba & Shumba, 2007). According to Kiggundu and Nayimuli (2009, p. 347), it is “a form of work-integrated learning that is described as a period of time when students are working in the relevant industry to receive specific in-service training in order to apply theory in practice”. With specific reference to the context of the study, Marais and Meier (2004, p. 221) explained that teaching practice involves “the range of experiences to which student teachers are exposed when they work in classrooms and schools”. In other words, during teaching practice, students who are studying toward a

bachelor's degree or postgraduate diploma in education are placed in public schools to practice the knowledge, skills and abilities that they have acquired (e.g. classroom management and lesson planning) and gain practical teaching experience.

Kiggundu and Nayimuli (2009) remarked that students who are studying toward a bachelor's degree or postgraduate diploma in education are required to complete teaching practice in at least two public schools. Based on the information gathered during the initial interviews, the researcher concluded that students often prefer to complete their teaching practice in fee schools, as teaching is perceived to be less demanding in these schools. However, she recommends that students should not be allowed to complete their teaching practice at only fee schools or no-fee schools. The researcher advises that students should be placed at both fee schools and no-fee schools for the purpose of their teaching practice.

The researcher argues that the value of no-fee schools in terms of teaching practice must not be disregarded. She is confident that students who are placed in both fee schools and no-fee schools for the purpose of their teaching practice will develop a realistic idea of the teaching occupation, compared to students who are only placed in well-resourced contexts (i.e. fee schools). What is more, these students will be equipped to master, manage or tolerate the demands that emanate from the communities that surround public schools. This, in turn, promises to create a cohort of newly qualified teachers who are capable of providing quality instruction in both fee schools and no-fee schools.

7.5.3.2. Placement of Teachers in Schools

A critical shortage of qualified teachers frequently plagues no-fee schools. Based on the information gathered during the initial interviews, it is apparent that teaching is perceived to be especially demanding in no-fee schools. It should, therefore, come as no surprise that many newly qualified and in-service teachers in no-fee schools plan to either leave the teaching occupation or apply for positions in fee schools. This, however, creates a challenge for the Western Cape Department of Education, as well-functioning teachers, who are able and motivated to perform their job optimally, are required in all public schools. In view of this, the researcher recommends that it is important to revisit how teachers are placed in public schools.

In line with the above-mentioned recommendation regarding the placement of students during teaching practice, the researcher proposes that a placement process that is comparable to the one used for the placement of healthcare professionals during their community service and

internship (Department of Health, 2017) should be developed and implemented among newly qualified teachers. This also promises to create a cohort of newly qualified teachers who are capable of providing quality instruction in both fee schools and no-fee schools. The researcher recommends that the Funza Lushaka bursary programme (Department of Basic Education, 2018) can be used as a bargaining tool to ensure that newly qualified teachers are placed in both fee schools and no-fee schools after graduating from tertiary institutions.

What is more, the researcher suggests that the Western Cape Department of Education must introduce an incentive structure for newly qualified and in-service teachers based on their placement in public schools. Increasing the remuneration and benefits (e.g. accommodation and travel allowance) of teachers that are placed in no-fee schools may sufficiently incentivise them to remain in or even apply for positions in no-fee schools.

7.5.3.3. Allocation of Resources that Promote Safety and Security in Schools

In 2012, the National School Violence Study, which was conducted by the Centre for Justice and Crime Prevention, revealed that more than 22 percent of secondary school students had experienced a form of crime and violence at their school during the preceding 12 months - an estimated 1 million students at that point in time. It is, therefore, to be expected that more than 26 percent of students and 30 percent of teachers reported feeling unsafe on the premises of public schools (Burton & Leoschut, 2013). Today, crime and violence is a common feature of many public schools in South Africa (Nthate, 2017). Without taking reasonable steps to protect students and teachers, their vulnerability to crime and violence will continue to increase.

In consideration of the foregoing comments, the researcher suggests that the Western Cape Department of Education, the South African Police Service, relevant government departments (e.g. Department of Community Safety) and community organisations (e.g. neighbourhood watches) must coordinate their efforts to address challenges associated with the safety and security of students and teachers. Based on the information gathered during the initial interviews, she proposes that this is especially important at no-fee schools. Efforts may include patrolling the routes that students and teachers use to travel to and from public schools and appointing security guards to protect students and teachers on the premises of public schools. In addition, it may include implementing a safe, anonymous protocol that students and teachers may use to report any threat to their safety and security.

The researcher recognises that the Department of Basic Education introduced the Safe Schools Project in 2000, as part of the Tirisano Plan, to create safe school environments (Department of Basic Education, 2000). However, the objectives of this project have not been fully realised. Due to underfunding and limited human resource capacity, the onus of creating safe school environments has frequently shifted to the principals and teachers of many public schools. Fortunately, in 2018, Schäfer identified that school safety is a key priority and proceeded to allocate R 34 million toward the Safe Schools Project in the Western Cape Province (Palm & Smith, 2018). The researcher recommends that these funds should be invested in the above-mentioned efforts.

7.5.4. Societal-level implications

Based on the results obtained during the qualitative phase (i.e. Parts 1 and 2) and a review of the extant literature, the perceived organisational justice of larger governing bodies (i.e. Western Cape Department of Education) was identified as a societal-level determinant. Along with the above-mentioned community-level determinants, this determinant could not be classified within the parameters of the existing JD-R model (Demerouti et al., 2001). It was also operationalised as a contextual resource in the study.

The researcher recommends that it is necessary to develop and implement human resource practices and interventions that cultivate the above-mentioned societal-level determinant among larger governing bodies (i.e. Western Cape Department of Education). Although there are several human resource practices and interventions that can be developed and implemented to influence public school teachers' perception of organisational justice positively, she will direct attention to the facilitation of a participative intervention and management training.

7.5.4.1. Participative Intervention

Within any organisation, the onus rests upon its leaders to demonstrate organisational justice through the development and implementation of fair organisational policies, regulations and procedures that govern management practices (e.g. employee wellness, training and development and recruitment and selection). When organisational justice is enacted through a set of internally consistent management practices, it becomes the “glue” that allows employees to work together effectively (Cropanzano, Bowen & Gilliland, 2007, p. 34). Regrettably, as mentioned in Chapter 3, the information gathered during the initial interviews directed attention

to challenges with the perceived organisational justice of larger governing bodies (i.e. Western Cape Department of Education).

To influence employees' perception of organisational justice positively, leaders must determine which organisational factors are relevant to organisational justice. It is only once leaders have identified which organisational factors are relevant to organisational justice within an organisation that they will be able to influence employees' perception positively. In consideration of this, the researcher recommends that larger governing bodies should determine which organisational factors are relevant to public school teachers' perception of organisational justice.

The researcher suggests a participative intervention should be used to determine which organisational factors are relevant to public school teachers' perception of organisational justice. This approach is derived from the work conference method, also known as the search conference method (e.g. Emery & Purser, 1996; Gustavsen & Engelstad, 1986). It is based on open discussions, where all participants are given an equal opportunity to share their inputs throughout organisational justice planning and participate in decision-making processes. Participants discuss and develop their inputs during seminars and work groups. During seminars and work groups, participants set developmental goals concerning organisational justice and formulate action plans to achieve these goals.

The researcher anticipates that a participative intervention promises to influence public school teachers' perception of each dimension of perceived organisational justice (i.e. procedural, distributive, informational and interpersonal justice) positively (Colquitt et al., 2001). To take a case in point, Thibaut and Walker (1975) proposed that employees' perception of procedural justice is influenced by their ability to exercise control in decision-making processes. Along the same lines, Folger (1977) remarked that employees must be able to share their inputs. During a participative intervention, all participants are given an equal opportunity to share their inputs throughout organisational justice planning and participate in decision-making processes. By granting public school teachers the opportunity to share their inputs throughout organisational justice planning and participate in decision-making processes, the researcher is confident that a participative intervention may positively influence their perception of procedural justice.

Various intervention studies have examined participative interventions and shown support for their effectiveness (e.g. Mikkelsen & Saksvik, 1999). As an illustration, an intervention study conducted by Linna et al. (2011) showed that a two-year large-scale participative intervention positively influenced the perception of organisational justice among 1 584 municipal employees in 114 work groups. More specifically, results showed that it positively influenced municipal employees' perception of interactional and procedural justice at an individual, as well as a work group level.

7.5.4.2. Management Training

In addition to the above-mentioned recommendation, the researcher suggests that challenges with the perceived organisational justice of larger governing bodies can also be addressed through management training in organisational justice. She claims that management training, based on organisational justice theory, promises to teach employees of larger governing bodies how to influence public school teachers' perception of organisational justice positively.

Various intervention studies have examined management training in organisational justice and shown support for its effectiveness (e.g. Cole & Latham, 1997; Skarlicki & Latham, 1997). For example, an intervention study conducted by Nakamura et al. (2016) among 184 managers and 562 subordinates in 23 departments of the private manufacturing sector in Japan showed that a training session of 1 hour and 30 minutes in organisational justice taught managers how to influence their subordinates' perception of organisational justice positively. More specifically, results showed that it positively influenced their subordinates' perception of interactional justice.

The above-mentioned intervention studies have adopted different approaches to management training in organisational justice. For this reason, the researcher recommends that pilot studies should be conducted to determine the content and duration of management training in organisational justice among the employees of larger governing bodies prior to the development and implementation of such interventions.

7.6. Contributions of the Study

The following section will outline the contributions of the study to the extant body of knowledge.

Firstly, the qualitative phase (i.e. Part 1) offers insight into the most salient antecedents of variance in employee engagement among public school teachers in the Western Cape Province, which may help to address challenges associated with the quality of basic education offered in many public schools - a contentious issue that negatively influences its economic, social and political development. A previous study among teachers has not examined the combination of the contextual, organisational, job and individual antecedents of variance in employee engagement.

Secondly, the qualitative phase (i.e. Part 2) produced a composite uncluttered SID (Figure 4.1) that provides insight into the complex relational dynamics that exist among the above-mentioned antecedents of variance in employee engagement. This led to the incorporation of teacher-, school-, community- and societal-level determinants in a single model (Figure 4.3) that explains the engagement phenomenon among public school teachers in the Western Cape Province.

Thirdly, employee engagement was initially conceptualised as a stable psychological presence of employees in their work role (Rothbard & Patil, 2012) or affective-motivational state toward their work (Schaufeli et al., 2002). More recently, Bakker (2014) defined employee engagement as fluctuating intra-individual experiences of work and its environment. In consideration of this, the qualitative phase (i.e. Part 2) explored between-person, as well as within-person variance in employee engagement among public school teachers in the Western Cape Province. By examining between-person, as well as within-person variance in employee engagement, the study made a positive contribution to this relatively new area of scholarly inquiry.

Fourthly, recent research has shown that context influences employee engagement and its antecedents (e.g. Jenkins & Delbridge, 2013; Rothmann, 2014). Along the same lines, researchers have shown that contextual factors influence the job stress and occupational health of teachers (e.g. Collie et al., 2017; Collie et al., 2012). Even so, McCarthy et al. (2017) remarked that more research is needed to understand the role of these factors within particular countries. It is, therefore, important to account for contextual factors within South Africa. For

this reason, the qualitative phase (i.e. Parts 1 and 2) distinguished between participants from fee schools (i.e. quintiles 4 and 5) and no-fee schools (i.e. quintiles 1 and 2) in accordance with the national quintile system (Henderson, 2016). By adopting a holistic approach, the study was the first to gain an in-depth understanding of the employee engagement phenomena among public school teachers in the Western Cape Province.

Fifthly, job crafting and self-undermining are typically operationalised as coping strategies within the parameters of the JD-R model (Harju et al., 2016). However, some researchers have proposed that the JD-R model may be adapted to include other individual strategies, apart from job crafting and self-undermining (Bakker & Demerouti, 2017). Based on the results of the qualitative phase (i.e. Part 1), engagement coping (i.e. direct action, turning to religion, seeking emotional support and acceptance) and disengagement coping (Pienaar & Rothmann, 2003) were incorporated into the JD-R model. By integrating these coping strategies into the JD-R model, the study identified alternative cognitive and behavioural efforts that public school teachers in the Western Cape Province adopt to master, manage or tolerate the demands that they encounter.

Sixthly, some researchers have proposed that it is necessary to examine micro-processes in the JD-R model (Bakker & Demerouti, 2017). In accordance with this, the qualitative phase (i.e. Parts 1 and 2) explored micro-processes in the JD-R model. This offered an understanding of specific work conditions (i.e. job demands and job resources) that activate positive affective experiences and, in turn, explain within-person variance in employee engagement among public school teachers in the Western Cape Province.

Seventhly, in general, research that uses the IQA methodology (Northcutt & McCoy, 2004) to gain an understanding of phenomena is limited. By conducting a variation of the conventional IQA methodology, the qualitative phase (i.e. Parts 1 and 2) of the study offered insight into the mental models that public school teachers in the Western Cape Province have formed concerning antecedents of variance in employee engagement. There is no previous study investigating the above-mentioned antecedents, which has used the IQA methodology.

Eighthly, the results of the qualitative phase (i.e. Parts 1 and 2), as well as the quantitative phase (i.e. Part 3), of the study provided valuable information that was used to identify human resource practices and interventions that may be developed and implemented to foster employee engagement among public school teachers in the Western Cape Province.

7.7. Limitations of the Study and Recommendations for Future Research

Even though the study provided valuable insights into the most salient antecedents of variance in employee engagement among public school teachers in the Western Cape Province, it is not without limitations. The following section will discuss its limitations. The researcher used these limitations to inform recommendations for future research.

Firstly, the study was conducted among secondary school teachers. The researcher recognises that it is important to foster employee engagement among all teachers, as both primary and secondary school teachers contribute to the effective functioning of public schools across South Africa. While secondary education equips the youth with the knowledge, skills and abilities that individuals require to secure jobs, enter the labour market and excel in all spheres of life, primary education lays the foundation for learning. In consideration of this, she recommends that the study should be replicated among primary school teachers.

Secondly, the setting for the study was public schools across South Africa. As mentioned in Chapter 3, in consideration of the unsatisfactory state of public schooling in South Africa, only public school teachers were included in the sample population. This does not imply that private schools are without challenges. It merely highlights the need for an urgent intervention among public school teachers. However, as a consequence, the results may only be used in the context of public schools. The researcher recommends that research is needed to determine whether the results of the study hold true among private school teachers. The study serves as a foundation for future research regarding the most salient antecedents of variance in employee engagement among private school teachers across South Africa. This corresponds with Bakker and Albrecht's (2018) recommendation that future research should examine factors that influence employee engagement across specific industry sectors (e.g. private sector and public sector).

Thirdly, the study was conducted among public school teachers in the Western Cape Province (i.e. Cape Winelands, Eden and Central Karoo, Metro Central, Metro East, Metro North, Metro South, Overberg and West Coast). Even though public schools in the Western Cape Province offered an accurate reflection of the inequalities that exist within the South African education system, the researcher recognises that it restricts the generalisability of the results. To address this limitation, she recommends that the study should be replicated among public school teachers in other provinces across South Africa (i.e. Eastern Cape, Free State, Gauteng,

KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape and North West Provinces) and their associated education districts.

Fourthly, the researcher deviated from the conventional IQA methodology due to unforeseen challenges associated with the arranged focus group sessions (e.g. time constraints in teachers' schedules). Focus group sessions were replaced by individual interviews (i.e. initial and follow-up interviews). This influenced the way in which data was analysed once all the initial interviews were completed. As opposed to participants jointly analysing the information gathered during the initial interviews (i.e. Part 1), it was analysed by the researcher. The researcher advises that future researchers use the conventional IQA methodology, whereby both researchers and participants are involved in the process of data collection and analysis.

Fifthly, the relational dynamics that exist among personal characteristics were not explored during the follow-up interviews. As mentioned in Chapter 4, psychological capital, emotional intelligence and work locus of control were subsumed under a single affinity, namely personal characteristics. The researcher acknowledged that this was a limitation of the qualitative phase (i.e. Part 2). She addressed this limitation by operationalising psychological capital, emotional intelligence and work locus of control as separate latent variables in the emerging structural model.

Sixthly, the quantitative phase (i.e. Part 3) used a cross-sectional approach. This design did not allow the researcher to establish the causal relationships that exist among the latent variables of interest during the quantitative phase. Although the interplay and relational dynamics that exist among the latent variables were explored during the qualitative phase (i.e. Part 2), she recommends that longitudinal research is needed to evaluate the results obtained quantitatively.

Seventhly, the quantitative phase (i.e. Part 3) was based on a self-report web-based survey. In consideration of foreseeable practical constraints associated with data collection (e.g. logistical and financial implications of distributing paper-pencil questionnaires), a web-based survey was distributed among public school teachers in the Western Cape Province to gather primary data for the purpose of the quantitative phase. Regrettably, there are public schools in the Western Cape Province that did not have the infrastructure and resources to accommodate the web-based survey. As a result of restricted access to a secure and stable internet connection and computer facilities in some participating public schools, the researcher anticipates that a number of teachers were unable to complete the web-based survey. In view of this, the

researcher advises that the distribution of a paper-pencil questionnaire is a more comprehensive strategy. She recommends that future researchers should consider using a paper-and-pencil questionnaire to collect data among public school teachers, as opposed to a web-based survey, in order to yield a higher response rate. As mentioned in Chapter 5, research has shown some support for this notion (Redelinghuys et al., 2018). What is more, this may also prevent the exclusion of members of the target population.

Eighthly, selected subscales of the Calling and Vocation Questionnaire (Dik et al., 2012), Work Locus of Control Scale (Spector, 1988), COPE Questionnaire (Carver et al., 1989), Organisational Climate Index (Hoy et al., 2002) and School Ethical Climate Index (Schulte et al., 2002) were included in the web-based survey based on the antecedents that were identified during Part 1 of the qualitative phase. Although the items subsumed under selected subscales remained unchanged, the exclusion of other subscales must be borne in mind when the replicability of the results obtained during the quantitative phase is evaluated. The researcher advises that future researchers use instruments in their original form to decrease the complexities associated with replicating the results obtained.

Another limitation of the quantitative phase (i.e. Part 3) relates to the nature of self-report measures. Owing to the use of self-report measures in the study, common method variance may have negatively affected the accuracy of the results obtained during the quantitative phase. The researcher does, however, believe that reasonable steps were taken in the study to assure participants of the complete protection of their identity in order to reduce evaluation apprehension and common method variance, also known as mono-method bias (Podsakoff, MacKenzie, Lee & Podsakoff, 2003).

Tenthly, although the researcher intended to compare the results obtained from fee schools and no-fee schools in order to identify group-specific, as well as global, tendencies that must be taken into consideration during the development and implementation of human resource practices and interventions to foster employee engagement among public school teachers, she was unable to perform such an analysis (i.e. MSEM) in the quantitative phase (i.e. Part 3). As mentioned in Chapter 5, the majority of participants in the quantitative phase were employed in fee schools ($n = 321$ (91 percent)). Only 31 participants (9 percent) were employed in no-

fee schools. As a result, the objective of the quantitative phase was not fully realised⁴¹. The results of the qualitative phase (i.e. Parts 1 and 2) demonstrated that contextual factors explain variance in employee engagement among public school teachers in the Western Cape Province. The researcher, therefore, recommends that the quantitative phase should be replicated among a sample with a broader representation of no-fee schools (i.e. quintiles 1 and 2).

In eleventh place, a multi-stage sampling process was used to select a probability sample for the purpose of the quantitative phase. The researcher recommends that future researchers use an alternative non-probability sampling, specifically quota sampling, to select a sample with equal representation of fee schools (i.e. quintiles 4 and 5) and no-fee schools (i.e. quintiles 1 and 2).

In twelfth place, the researcher recommends that future research should elaborate on the emerging structural model (Figure 4.4) among public school teachers in the Western Cape Province. According to Bronfenbrenner's (1977) ecological systems theory, the mesosystem consists of linkages and processes that occur between two or more settings. As mentioned in Chapter 4, the researcher did not examine how demanding and resourceful aspects of one microsystem influences outcomes in another microsystem, as the majority of participants did not refer to microsystems, apart from their school, during the qualitative phase (i.e. Parts 1 and 2). Nevertheless, she acknowledges that it may be useful to examine the linkages and processes that occur between two or more settings. In consideration of this, the researcher recommends that future researchers should incorporate pathways and processes that occur between two or more microsystems in the emerging structural model to enhance theory building.

Lastly, the study made a meaningful contribution to the extant body of knowledge regarding employee engagement. However, the insight gained about public school teachers in the Western Cape Province's experience with the engagement phenomenon must be translated into practical applications. Bakker and Albrecht (2018) stated that an important trend in engagement literature concerns the number of intervention studies that have been conducted in recent years (e.g. Knight, Patterson, Dawson & Brown, 2017; Steidle, Gonzalez-Morales, Hoppe, Michel

⁴¹ Evaluate the emerging structural model quantitatively, making specific reference to contextual, organisational, job and individual antecedents that explain between-person variance in employee engagement among public school teachers in the Western Cape Province.

& O'shea, 2017). In line with this, the researcher proposes that intervention studies should be conducted based on the results of the study among public school teachers.

7.8. Summary

In Chapter 7, a summative discussion of the qualitative phase (i.e. Parts 1 and 2), as well as the quantitative phase (i.e. Part 3), of the study was presented.

Following the above-mentioned summative discussion, the theoretical conclusions emanating from the study were deliberated. The theoretical conclusions related to the central tenets of the JD-R model and the importance of accounting for between-person and within-person variance, as well as fluctuations in job demands and job resources, in research that examines the engagement phenomenon. In addition, the theoretical conclusions concerned the inclusion of contextual demands and contextual resources within the parameters of the JD-R model, and the adoption of a socio-ecological perspective when studying employee well-being, such as employee engagement.

In addition to the theoretical conclusions, managerial implications were also deliberated based on the results of the study. The managerial implications were divided into four categories in accordance with Bronfenbrenner's (1977) ecological systems theory. These categories were teacher-, school-, community- and societal-level implications. Teacher-level implications concentrated on the recruitment and selection, training and development, job design and mentoring of students and teachers. School-level implications involved the standardisation of initial teacher education, collaborative service delivery in public schools and allocation of school facilities and teaching resources. Community-level implications concerned the placement of students and teachers and the allocation of resources that promote safety and security in public schools. Society-level implications referred to the facilitation of a participative intervention and management training.

Once the theoretical conclusions and managerial implications of the study were deliberated, the contributions of the study to the extant body of knowledge were outlined. Chapter 7 concluded with a discussion of the limitations of the study and recommendations for future research.

The researcher is confident that the study made a meaningful contribution to the extant body of knowledge regarding employee engagement. It offers valuable insight into the most salient

contextual, organisational, job and individual antecedents of variance in employee engagement among public school teachers in the Western Cape Province, as well as the relational dynamics that exist among these antecedents.

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ADDENDUM A

Table A.1 presents the guided imagery exercise that was used during the initial interviews.

Table A.1

Guided imagery exercise

Guided imagery exercise

You are currently employed as a teacher. You have been teaching in a public school for one year or more. During this time, you have been exposed to various aspects of the teaching occupation. In the following activity, I would like to invite you to reflect on these experiences.

In a few minutes, I am going to ask you to share your thoughts about the experiences that you have had while teaching in a public school.

There is no right or wrong way to think about the experiences that you have had while teaching in a public school. You are asked to share your thoughts truthfully.

Let us begin.

Please allow yourself to be as comfortable as possible.

Close your eyes to increase your state of relaxation.

Put any thoughts from last night and this morning aside to allow you to focus all your attention on experiences that you have had while teaching in a public school.

Now imagine that you are on your way to the school where you currently teach.

Visualize all the activities, places and people associated with being a teacher in this public school.

See yourself in your classroom - preparing lessons, teaching students and marking assignment.

See yourself walking in and around the school building – in the passages, in the staffroom, in the hall, and on the sports field.

See how you interact with the principal, fellow teachers, students and the parents of students.

Notice your surroundings. Allow yourself to become aware of your environment with all of your senses. Looking around you, take in the sights and the sounds that are associated with being a teacher in this public school. Be there in your mind.

Review all the recollections that you have had up to this moment.

- What are the key aspects that influence your job experience?
- How do you cope with being a teacher?
- What personal attributes/resources enable you to cope with being a teacher?

Allow all these thoughts to remain calmly in your consciousness and ready to be revealed.

Gently allow your consciousness back to this time and place. When you are comfortable, open your eyes.

Thank you for allowing these valuable observations and recollections to come into your consciousness.

Now, I would like to invite you to share your thoughts about the experiences that you have had while teaching in a public school.

Please write your thoughts - all that you just noticed and remember - on the index cards that have been given to you. You can write your thoughts in a sentence, a phrase, a word or a statement - anything that describes or explains your thoughts.

We will discuss each thought once this activity has been completed.

Remember, there is no right or wrong way to think about the experiences that you have had while teaching in a public school. You are asked to share your thoughts truthfully.

ADDENDUM B

Table B.1 presents the targeted questions about previously identified theoretical constructs.

Table B.1
Targeted questions

Previously identified theoretical constructs	Targeted questions
Job demands and job resources	What are the key aspects that influence your job experience? Tell me about your work tasks. Tell me about the principal of your school. Tell me about the facilities and teaching resources at your school. Tell me about your relationships and interactions with students at your school. Tell me about the involvement of parents in teaching and learning processes at your school.
Coping strategies	How do you cope with being a teacher? Have you changed the way that you perform your work tasks? Have you taken responsibility for more or fewer work tasks? Have you changed the way that you think about your work? Have you made any changes to the way that you interact with other people at your school? Have you made any changes to the amount of interaction you have with other people at your school?
Personal resources	What personal attributes/resources enable you to cope with being a teacher? How do you respond to the demands that you encounter? Who or what determines your success or failure at your school?

ADDENDUM C

Table C.1 presents the comprehensive description of themes⁴² that was used during the follow-up interviews.

Table C.1
Comprehensive description of themes

Level of themes	Description of themes
Teacher-level themes	
Employee engagement	The extent to which I feel focussed in and enthusiastic about teaching and wilfully go the extra mile, even when faced with work challenges.
Coping strategies	The extent to which I rely on behavioural and cognitive approaches to master, tolerate or reduce stress associated with work challenges.
Personal characteristics	Work locus of control: The extent to which I am in control of work outcomes.
	Psychological capital: The extent to which I am confident in my ability to teach and able to bounce back from work challenges to achieve work goals. The extent to which I can look on the bright side, even when faced with work challenges.
	Emotional intelligence: The extent to which I can recognise my emotions and those of others. The extent to which I understand what causes emotions and how they develop and change during an emotional experience. The extent to which I can use this insight to improve my thinking and behaviour.
Teaching motivation	The extent to which I became a teacher because I had a calling to teach and wanted to make a difference in the lives of others.
School-level themes	
Perceived workload	The extent to which my work tasks (i.e. teaching and non-core activities) are manageable in terms of their number and difficulty. The extent to which all my tasks are necessary or reasonable.
School climate	The extent to which the principal of my school is fair, open to the inputs of others and sets clear expectations. The extent to which the teachers at my school are competent, committed to students and respectful of each other.
School facilities and teaching resources	The extent to which the physical structure of my school (e.g. classrooms, staffroom and offices, ablution facilities, laboratories, sports fields or fencing) and its teaching resources (e.g. instructional material and equipment or IT and other electronic infrastructure) are conducive to teaching and learning processes.
Student-teacher relationships and interactions	The extent to which I experience warmth and open communication with students at my school, without them being over-reliant on me. The extent to which students at my school are well behaved.
Community-level themes	
Parental attitudes	The extent to which parents or next of kin of students at my school instil the value of education and mobilise resources to support student progression and achievement. The extent to which parents or next of kin of students at my school wilfully participate in and support school activities.

⁴² The researcher decided to refer to themes, as opposed to affinities, to facilitate comprehension among participants.

Table C.1
Comprehensive description of themes (Continued)

Level of themes	Description of themes
Community-level themes	
Social context of the neighbourhood	The extent to which the basic needs of students at my school are met (e.g. safety and security, housing, healthcare, nutrition or transport), and their household composition, in terms of the number of caregiving adults with whom they live (e.g. single-parent household, foster care or child-headed household), promote student progression and achievement.
Societal-level themes	
Perceived organisational justice	The extent to which decision-making processes of larger governing bodies regarding school-related matters are fair and transparent. The extent to which individuals affected by these decisions are treated with dignity and respect. The extent to which resources are distributed fairly among schools in my education district.

ADDENDUM D

Table D.1 presents the IRD of the fee school constituency in descending order.

Table D.1

Inter-relationship diagram of the fee school constituency in descending order

Affinities	POJ	SCN	PC	TM	SFTR	CS	EE	PA	PW	SC	STRI	Outs	Ins	Δ	Position in the SID
POJ	█	↑	↑	█	↑	↑	↑	↑	↑	↑	↑	9	0	9	Primary driver
SCN	←	█	↑	↑	↑	←	↑	↑	↑	↑	↑	8	2	6	Driver
PC	←	←	█	↑	↑	↑	↑	↑	↑	↑	↑	8	2	6	Driver
TM	█	←	←	█	↑	↑	↑	↑	↑	↑	↑	7	2	5	Driver
SFTR	←	←	←	←	█	↑	←	↑	↑	↑	↑	5	5	0	Pivot
CS	←	↑	←	←	←	█	←	█	↑	↑	↑	4	5	-1	Outcome
EE	←	←	←	←	↑	↑	█	←	←	↑	↑	4	6	-2	Outcome
PA	←	←	←	←	←	█	↑	█	←	↑	↑	3	6	-3	Outcome
PW	←	←	←	←	←	←	↑	↑	█	█	█	2	6	-4	Outcome
SC	←	←	←	←	←	←	←	←	█	█	↑	1	8	-7	Outcome
STRI	←	←	←	←	←	←	←	←	█	←	█	0	9	-9	Primary outcome

Note: POJ, Perceived organisational justice; SCN, Social context of the neighbourhood; PC, Personal characteristics; TM, Teaching motivation; SFTR, School facilities and teaching resources; CS, Coping strategies; EE, Employee engagement; PA, Parental attitudes; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions.

Table D.1 shows that one primary driver (i.e. perceived organisational justice), three drivers (i.e. social context of the neighbourhood, personal characteristics and teaching motivation), one pivot (i.e. school facilities and teaching resources), five outcomes (i.e. coping strategies, employee engagement, parental attitudes, perceived workload and school climate), and one primary outcome (i.e. student-teacher relationships and interactions) were identified.

The cumulative frequency conflict identification table of the fee school constituency showed that a number of affinity pair relationships had votes in opposing directions. The researcher used grey blocks to identify mischievous typologies in Table C.1.

ADDENDUM E

Table E.1 presents the IRD of the no-fee school constituency in descending order.

Table E.1

Inter-relationship diagram of the no-fee school constituency in descending order

Affinities	POJ	SCN	PC	TM	SFTR	CS	EE	PA	PW	SC	STRI	Outs	Ins	Δ	Position in the SID
POJ		↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	10	0	10	Primary driver
SCN	←		↑	↑	↑		↑	↑	↑	↑	↑	8	1	7	Driver
PC	←	←		↑		↑	↑	↑	↑	↑	↑	7	2	5	Driver
TM	←	←	←		↑		↑	↑	↑	↑	↑	6	3	3	Driver
SFTR	←	←		←			↑	↑	↑	↑	↑	5	3	2	Driver
CS	←		←				↑	←	↑	↑	↑	4	3	1	Driver
EE	←	←	←	←	←	←		↑	←	↑	↑	3	7	-4	Outcome
PA	←	←	←	←	←	↑	←		↑	←		2	7	-5	Outcome
PW	←	←	←	←	←	←	↑	←			↑	2	7	-5	Outcome
SC	←	←	←	←	←	←	←	↑			←	1	8	-7	Primary outcome
STRI	←	←	←	←	←	←	←		←	↑		1	8	-7	Primary outcome

Note: POJ, Perceived organisational justice; SCN, Social context of the neighbourhood; PC, Personal characteristics; TM, Teaching motivation; SFTR, School facilities and teaching resources; CS, Coping strategies; EE, Employee engagement; PA, Parental attitudes; PW, Perceived workload; SC, School climate; STRI, Student-teacher relationships and interactions.

Table E.1 shows that one primary driver (i.e. perceived organisational justice), five drivers (i.e. social context of the neighbourhood, personal characteristics, teaching motivation, school facilities and teaching resources and coping strategies), three outcomes (i.e. employee engagement, parental attitudes and perceived workload), and two primary outcomes (i.e. school climate and student-teacher relationships and interactions) were identified. No pivots were identified.

The cumulative frequency conflict identification table of the no-fee school constituency showed that a number of affinity pair relationships had votes in opposing directions. The researcher used grey blocks to identify mischievous typologies in Table D.1.

ADDENDUM F

Figure F.1 presents a theoretical summary of the uncluttered SID of the fee school constituency.

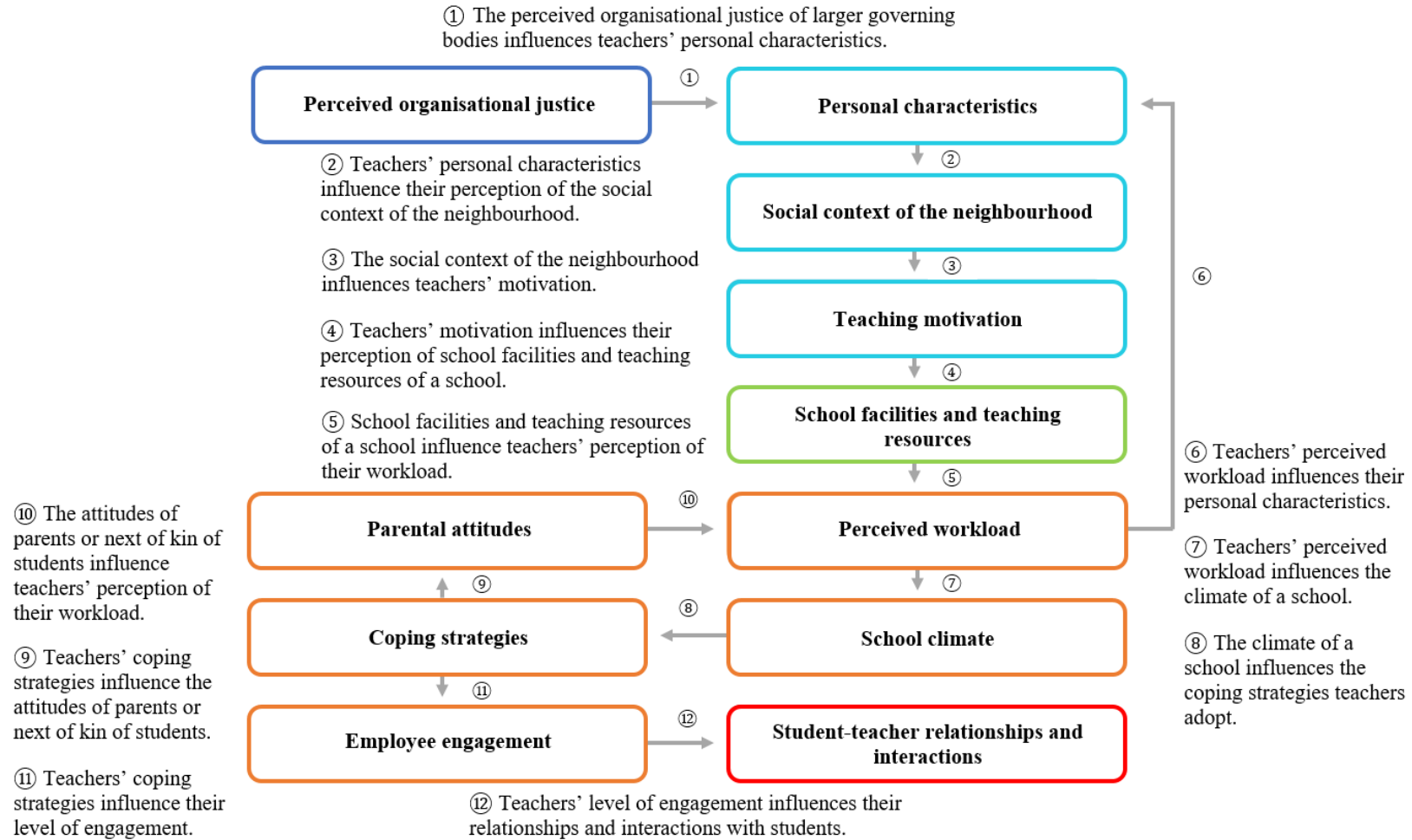


Figure F.1 Theoretical summary of the uncluttered systems influence diagram of the fee school constituency

ADDENDUM G

Figure G.1 presents a theoretical summary of the uncluttered SID of the no-fee school constituency.

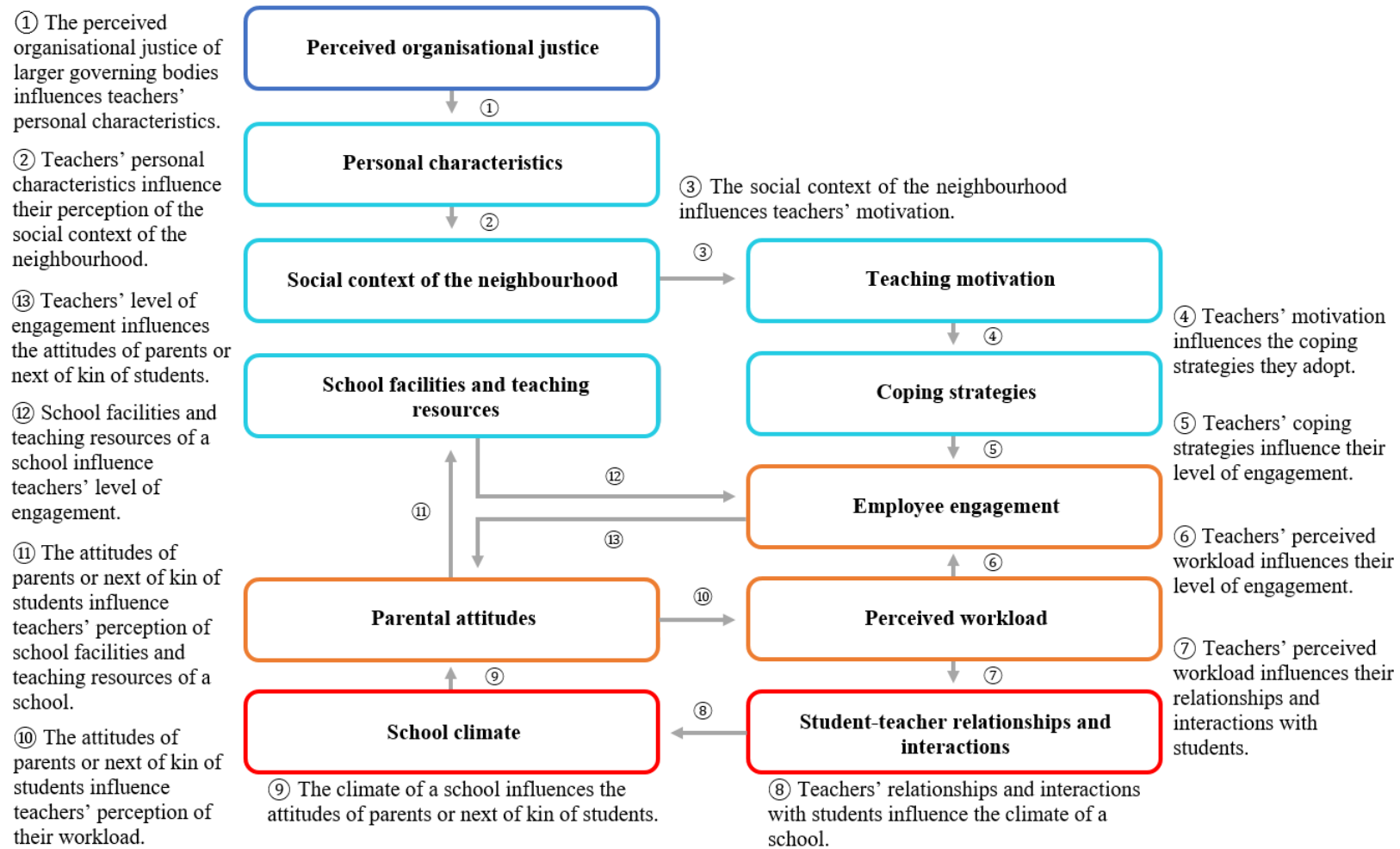


Figure G.1 Theoretical summary of the uncluttered systems influence diagram of the no-fee school constituency