The implementation practices of Physical Education by Grade R teachers

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The implementation practices of Physical Education by Grade R teachers

by

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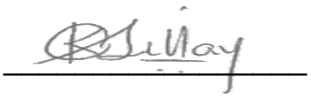
Ethical Statement

The author, whose name appears on the title page of this dissertation, has obtained, for the research described in this work, the applicable research ethics approval. The author declares that she has observed the ethical standards required in terms of the University of Pretoria's *Code of Ethics for Researchers and the Policy Guidelines for Responsible Research.*



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I, Kalayvani Pillay, hereby declare that this dissertation entitled:

The implementation practices of Physical Education by Grade R Teachers,

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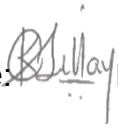
Signature:  Date: 29 January 2018

Dedication

I dedicate the research to my grandmother, who continues to be an inspiration in my life. I love you and miss you.

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I would like to thank the following people for their encouragement and support throughout the process of completing this study:

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Abstract

The purpose of the study was to determine Grade R teachers' understanding and implementation of Physical Education (PE) as part of their daily programme in relation to the Curriculum Assessment and Policy Statement (CAPS). A selected group of teachers from three government primary schools participated in the study. This is a qualitative study using a multiple case study research design. The methodological paradigm used to underpin the study is that of interpretivism. The theoretical lens used is the Concerns Based Model of Teacher Development. Purposeful sampling was used to select the participants in this research project. The findings indicate that teachers generally have a positive attitude towards implementing PE but most felt that they do not have enough time in the day to do this, so although lessons were planned and prepared, other lessons tended to take priority over PE. All the teachers were satisfied with the equipment available to them, however, not all teachers utilised these resources due to lack of time. Overall, teachers were vague in their understanding of the importance of PE in a child's development. The findings of this study indicate that there is a gap in resources available to assist teachers in their planning; and insufficient training in the implementation of PE to contribute to the body of knowledge on teachers' understanding and implementation of PE in Grade R. The study recommends that the Department of Education and policy makers should review teacher's training and continuous professional development on the use of CAPS with specific reference to PE. The findings of the study indicate that teachers can indeed benefit from training resources to support implementation of PE in Grade R.

Key terms

PE
Curriculum
Grade R
Implementation
Understanding
Movement
Holistic practices

List of Abbreviations

PE	Physical Education
CAPS	Curriculum Assessment and Policy Statement
FP	Foundation Phase
DBE	Department of Basic Education
CBMoTD	Concerns-based model of Teacher Development
ECD	Early Childhood Development
CPTD	Continuous Professional Teacher Development

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Chapter One
Introduction and Orientation of the Study

"The right education must tune the strings of the body and mind to perfect spiritual harmony."(Plato, 428-347 BC).

1.1 INTRODUCTION

Physical movement is regarded as the foundation for cognitive internalisation (Steyn, Schuld & Hartell, 2012). To put it differently, Cheatum and Hammond (2000) explain that movement is perceived as the foundation, which aids the brain to assimilate in preparation for academic work. Hannaford (2005) and Puckett and Black (2005) agree with the above statement by saying that the body plays a vital role in all our intellectual processes from our first moments in utero until old age. Krog (2015) highlights that the years between birth and nine years, which are more commonly known as the early childhood years, is a crucial period for a child to establish fundamental motor skills, which will have an influence on the physical, social and cognitive development of the child.

It has been established that an exercise-stimulated environment, with a focus on movement, which is vital for learning and memory is favourable for learning (Olds, 1994; Summerford, 2001; Fredericks, Kokot & Krog, 2006). It is thus essential that children in the early years are presented with many opportunities to aid them in developing control of the muscles and the movement of their bodies. In this regard, the World Health Organization (WHO, 2010) reports that regular physical activity is associated with improvement in the physiological and psychological health of children and youth. Furthermore, it reduces the risk of developing cardiovascular disease and type-2 diabetes, improves bone health, helps to control body weight, reduces depression and anxiety and assists in social development by providing opportunities for self-expression and social interaction. Krog (2015) postulates that in order to enrich children's movement experiences in early childhood education programmes, the class teacher needs to be involved. Even though educators are regarded as a valued source of information, as well as being advocates of learning through movement, there has been little effort to understand their views on this topic (Gehris,

Gooze & Whitaker, 2015). This study will therefore investigate Foundation Phase teachers' perspectives on PE.

1.2 RATIONALE

PE is an integral part of children's development. Mayesky (2009) states that children experience physical activity as a pleasurable and fulfilling activity and this can be ascribed to the young child's acquisition of all sorts of large and small motor skills during the early years of life. Dating back to the previous century, well known theorists such as Ayers (1979), Cratty (1972; 1973), Delacato (1959;1974) and Kephart (1975), shared their beliefs that physical activity reflects neural organisation and provides the necessary stimulation for optimal development and functioning (Krog 2010).

Extensive studies both internationally and locally (Breslin, Morton & Rudisil, 2008; Garrett & Wrench, 2007) have been conducted to compare different PE programmes and to investigate how they positively affect perceptual as well as cognitive skills. Krog (2010) mentions that in research conducted by Blythe (2000), who is an expert in neurological development of movement, there is rising evidence supporting the theory that control of balance, motor skills and incorporation of early reflexes are related to academic success. Studies both internationally (Hardman, 2008; Sherman, Tran & Alves, 2010) and in South Arica (Du Toit, Van der Merwe & Roussouw, 2007; Amusa & Toriola, 2008) have shown that PE is inadequately implemented in schools. Poor implementation of PE may be due to the lack of consensus concerning the aims and purposes of PE (Perry, Mohangi, Ferreira & Moletsane 2012). This study, focusing on gaining insight into teachers' perspectives on PE, may contribute to the body of knowledge dealing with teachers' implementation strategies for PE.

Although the implementation of a PE programme is prescribed in CAPS (2011) for Grade R learners, only a few teachers in South Africa have been trained in implementing PE in Grade R (Maharaj, Nkosi & Mkihize, 2016). Consequently, the question is raised on how Grade R teachers implement the curriculum set out in the CAPS document and whether they have the required knowledge and skills to promote learning by implementing PE in their classrooms. The curriculum has also evolved and changed in the past few years. However, Burger (2010) found that the teachers were unsure of what was expected of them with regard to the curriculum

changes because of the lack of in-depth training. Fullan (2007) states that change is inherently complex. He furthers states that solutions occur when people interact in a purposeful way (Fullan, 2007). Curriculum 2005 (C2005) was developed to reflect the process of introducing the outcomes-based education (OBE) philosophy into the South African school system. This was launched in March 1997 and teachers had to adapt to radical changes in the curriculum. In May 2002 the curriculum was reviewed by education minister, Kader Asmal, and this led to the Revised National Curriculum, which was implemented in 2004 (Mouton, Louw & Strydom, 2012:1214). Neither of the curricula above placed any emphasis on the importance of PE in learning. The RNCS was later changed to the National Curriculum Statement (NCS) in 2009. In 2012, the current NCS (CAPS) was introduced. Teachers were expected to implement CAPS, although it is commonly assumed that they received no formal training to do so. PE was re-introduced in CAPS.

Research into PE in South Africa has focused mainly on primary and secondary schools, with not much being undertaken regarding implementation of PE in the pre-primary setting (Du Toit, Van der Merwe & Rossouw 2007; Van Deventer 2004, 2009). There has been limited research regarding teachers' understanding of the curriculum and the expectations of PE and its implementation. A study undertaken by Perry et al (2012) has investigated the use of the RNCS in one private school. Their study indicates that participants had many concerns with the PE section of the RNCS and furthermore they felt that the curriculum was left open to subjective interpretation by teachers because it did not specify exactly what is required of a child with regard to PE (Perry et al, 2012:130). The study also shows that teachers feel the curriculum does not require quality performance from the children. They are merely required to participate, without necessarily achieving any specific outcomes (Perry et al, 2012:130).

During my years as a pre-primary teacher, I have used a variety of approaches and adapted them to incorporate PE into my daily programme. While PE is a necessary component of Grade R learners' development and learners enjoy participating in PE activities, there are no guidelines provided in CAPS (2011) to support teachers on how to implement PE. As a teacher, I was expected to plan and implement my own PE programme. For this reason, I began to notice that very few teachers were implementing structured PE programmes.

I consulted with other teachers in my school and they agreed that although PE is a part of the subject Life Skills in CAPS, it does not form a significant part of their daily programmes. They seldom know exactly what to do with the learners, or find that the programmes they are using are repetitive and monotonous.

The discussion above led me to question whether teachers understand the importance of implementing PE in Grade R classrooms in South African schools. I discovered that there has been very little research on teachers' understanding and implementation of PE, especially in the South African context. I found that there are gaps in the literature with regard to the knowledge and resources teachers have on implementing PE in Grade R. I also realised that there are no clear guidelines to assist teachers in setting up and presenting a PE lesson. It therefore, seemed worthwhile to determine the level of understanding teachers have on what is expected of them and how they are implementing CAPS, specifically in PE. I hope this study will add to the knowledge base on teachers' perceptions of PE and influence policy on how it be applied in Grade R settings. It may also inform district officials on what type of training teachers still require. The findings of this research project could also assist teacher-training institutions on what beginner teachers require in the way of preparation to teach PE in Grade R.

1.3 RESEARCH PROBLEM

Against the background of the discussion above, it is evident that PE is an integral part of children's holistic development and acquisition of skills to enhance the learning process. CAPS (2011) does not provide specific guidelines on how to achieve this or on the progression of PE across the grades. Nor does CAPS (2011) provide explanations on the use of perceptual skills, tactile development, vestibular development, gross motor skills, games and kinaesthetic development. As a teacher, I believe that if teachers are more aware and more knowledgeable in the area of PE and how to implement it effectively as part of the curriculum, children will be able to reap the full benefits of becoming actively engaged in a PE programme.

The lack of necessary training that teachers receive to teach PE, coupled with the absence of well-defined guidelines concerning the implementation of PE in CAPS (2011), calls for an investigation of teachers' understanding and implementation of PE. The following research questions are basic to this study.

1.3.1 PRIMARY RESEARCH QUESTION

This study was guided by the following primary research question:

How do Grade R teachers understand and implement PE according to the Curriculum and Assessment Policy Statement?

1.3.2 SECONDARY RESEARCH QUESTIONS

In order to address the primary research question, the following sub questions were explored:

- What are the theoretical insights regarding the importance of PE for Grade R children's development?
- What are teachers' perceptions with regard to PE in Grade R?
- What guidelines can be formulated in order to support teachers' implementation of PE in Grade R?

1.4 AIMS OF THE INVESTIGATION

The aim of the research is to investigate how teachers understand and implement PE in Grade R classrooms, in accordance with CAPS.

1.4.1 General aim

The aim of the research was to investigate how Grade R teachers are implementing PE and whether they understand the importance of PE in the development of a young learner.

1.4.2 Specific aims objectives

In order to determine what the understanding of PE is from the teachers and how it is being implemented in the Grade R classroom, various specific aims have been formulated, namely to:

- determine how teachers understand the subject Life skills and where PE fits into it in accordance with CAPS.
- determine the implementation strategies of teachers in Grade R.

- observe a group of teachers presenting a PE lesson
- determine if PE plays an important role in a child's development
- create awareness among early childhood educators regarding the importance of enhancing a positive perception and experience of movement skills (and therefore movement activities and lessons) for young children.

1.5 CLARIFICATION OF KEY CONCEPTS

To illuminate the title of this study, the following concepts will be explained, namely PE, Grade R, implementation, understanding and practice.

1.5.1 PE

The World Health Organisation (2017) defines physical activity as the physical movement created by skeletal muscles, i.e. movement that needs energy expenditure. CAPS (DBE, 2011) defines PE as the development of a learner's gross and fine motor as well as perceptual skills. Keogh and Sugden (1985:35) on the other hand, make reference to all human movement, which is affected through the reflexes and later by the purposeful use of the muscles as PE. According to Trudeau and Shephard (2008:265), PE is usually defined as an academic subject offered during the school day and organised according to a curriculum that is regulated by some governmental rules. For the purpose of this study PE is viewed in line with the CAPS document which refers to the teaching of movement which includes gross motor skills, motor development as well as perceptual skills in Grade R.

1.5.2 GRADE R

The Foundation Phase is a four-year stage of schooling that includes children between the ages of six and nine and correspondingly range from Grade R to Grade 3 (Mahlo, 2011). The National DBE (DBE, 2006) has identified three models of provision of Reception Year-Grade R: the first is within the primary school system; the second is in community-based sites; and the third is the independent establishment of reception year programmes. Grade R is the year before Grade 1. For the purpose of this study the focus will be on Grade R only, that is, referring to

children who are between 5 and 6 years old. The following figure (Fig. 1.1) explains Grade R's position within the Foundation Phase of the Gauteng Department of Education (GDE).

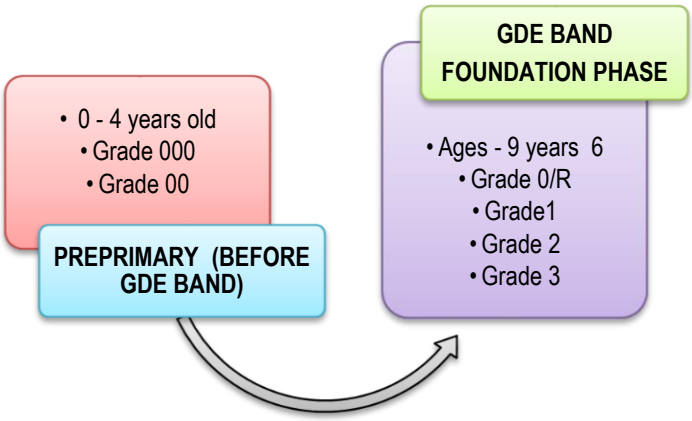

Figure 1.1: Indication of Grade R according to Gauteng Department of Education (DBE, 2006)

1.5.3 IMPLEMENTATION

Merriam-Webster (2007) defines implementation as the ability to apply practical measures and ensure actual fulfilment by concrete measures. According to Smylie and Evans (2006:187), implementation forms the crucial link between the objectives and outcomes of policies, programmes and practices. For the purpose of this study, implementation will refer to the concrete actions that are carried out to implement PE in accordance with the CAPS (2011) in the Grade R programme.

1.5.4 UNDERSTANDING

According to Merriam-Webster (2007) understanding is the mental process by a person who comprehends an idea or concept. It is a person's personal interpretation on a particular subject as well as his/her knowledge or background on this subject. Implementation of a particular subject is strongly informed by a person's understanding and knowledge of that particular subject. For the purpose of this study, understanding will refer to teachers' interpretation of PE in accordance with CAPS (2011) and their existing knowledge of PE.

1.5.5 PRACTICES

The Oxford online dictionary (2017) defines practices as the actual application and use of an idea, belief or method, as opposed to theories related to it. The EOA National Best Practices Centre (2016) defines best practices as a wide variety of individual activities, policies and procedures to attain positive results that help a student, programme or an organization. For the purpose of this study, practices will refer to Grade R teachers' application of ideas while implementing PE.

1.6 LITERATURE REVIEW

The following aspects are discussed in order to contextualize my study: The need for Life Skills education; the application of Life Skills in CAPS; and the role of PE within the subject Life Skills.

1.6.1 THE NEED FOR LIFE SKILLS EDUCATION

According to Lawler (2013) the subject Life Skills deals with the holistic development of the learner during the course of childhood. It provides learners with knowledge, practical skills and values to help them to attain their full physical, intellectual, personal, emotional and social potential. Lawler adds that this inspires learners to attain and practice life skills that will contribute to becoming independent and effective in responding to life's challenges. It also teaches them to play a dynamic and accountable role in society. Life Skills consists of three different, but interrelated, study areas namely: personal and social wellbeing, PE and creative arts.

The World Health Organization (Unicef, 2012:8) defines life skills as the abilities for adaptive and positive behaviour that enable individuals to deal effectively with demands and challenges of everyday life. Life skills encompass aspects like self-awareness, empathy, critical thinking, decision making, and managing stress (Martin, 2016). Finally, research identifies the need to educate children from a young age to deal with the challenges that life presents and enables them to participate in society in a productive way (Unicef, 2012).

1.6.2 THE AIMS OF LIFE SKILLS IN CAPS

Finn (in Steyn, et al, 2012) state that there has been a paradigm shift worldwide in the broad aims of education, to include non-academic subjects in school curricula. This shift of emphasis is designed to meet the needs of an increasingly diverse community. CAPS in the South African Education system is applied in this manner. CAPS[1] stands for Curriculum Assessment Policy Statement which was announced on the 3rd of September 2010 by the South African government. It is not a new curriculum according to the Minister of Basic Education but a revision of RNCS. Life Skills is a subject area in CAPS. The DBE (2011:12) points out that the aim of the Life Skills study area is to support learners in their journey to become contributing citizens of our country. It focuses on non-academic knowledge such as individuality, how to relate positively to others and the environment and how to attain social and emotional health. It also provides guidance in exercising one's rights and responsibilities and teaches the importance of allowing for religious and ethnic differences.

In the Foundation Phase, the subject Life Skills consists of Beginning Knowledge; Creative Arts; Physical Education, and Personal and Social Well-being (DBE, 2011a)..

Life Skills exposes learners to a variety of knowledge, skills and values (DBE, 2011) to reinforce their physical, social, personal, emotional and cognitive development. Life Skills furthermore develops learners' innovative and artistic skills. It gives them knowledge through engaging in dance, music and drama, and visual art activities. It teaches them about their personal health and safety as well as providing them with an understanding of the relationship between people and the environment. It also makes them aware of social relationships, technological processes and elementary science (DBE, 2011).

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[1] https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSFoundation/tabid/571/Default.aspx

1.6.3 THE ROLE OF PE WITHIN THE SUBJECT LIFE SKILLS

The DBE (2011) states that PE is an important component of the subject Life Skills. PE assists in the holistic development of a learner. Physical and motor development make a substantial contribution to the social, personal and emotional growth of the learner. It can therefore be underscored that PE is essential to the holistic development of learners. With active participation in quality PE and sports education play, movement, games and sport can add to the development positive attitudes and values (DBE, 2011). In this regard, I believe that this can only be fulfilled with an experienced, qualified, motivated teacher and a programme that is well developed, learner-centred and goal driven.

Sitzer (2003:2) explains that the focus for learners in Grades R to 3, specifically in PE, is to learn, discover and investigate with movement patterns and movement possibilities. The purpose is to encourage gross motor development and physiological growth. The DBE (2011) provides the following examples of the PE focus in the Foundation Phase, namely that the learner: Participates in free play activities; Demonstrates ways of throwing, striking, rolling, bouncing, receiving and moving with a ball or similar equipment; Uses a combination of body parts to locomote, rotate, elevate and balance, with or without equipment; Performs basic movements in sequence and with repetition, with and without equipment and Explores expressive movements using contrasts of speed, direction, body shape and position. This provides a strong foundation for PE and the development of a child's gross motor skills.

1.7 THEORETICAL FRAMEWORK

The Concerns-Based Model of Teacher Development (CBMoTD) developed by Fuller (1969) is used as a theoretical lens through which this study is able to examine the process of curriculum implementation with regard to PE. It consists of three stages, namely the focus on the task; the focus on the self; and the focus on the results. This study will refer to the three stages of concern Grade R teachers have: the resources and support available to them in carrying out their responsibilities; the implementation of CAPS; and the impact of PE on the learner.

1.8 RESEARCH METHODOLOGY

This section clarifies the research methodology that was used in this study.

1.8.1 RESEARCH DESIGN

McMillan and Schumacher (2010:20) describe a research design as a technique or general plan used in a research study and the type of data collection that this plan includes. The research design provides the overall structure for the process the researcher follows. For the purposes of this study, the research design includes the paradigm, approach and type of research.

1.8.1.1 An interpretivist paradigm

Deetz (1996) states that an interpretative paradigm tries to comprehend phenomena through the meanings that people assign to them. Burns (2000) explains that the interpretivist paradigm emphasises that knowledge is acquired and transmitted through language. Interpretivism places the emphasis on understanding individual interpretations of the world (Cohen, Mannion & Morrison, 2007). According to Ferreira (2013:35) an interpretivist paradigm is ideal when the researcher requires insight into the experiences and perceptions of the participants. For the purpose of this study, interpretivism helped me interpret the participants' understanding of PE as articulated in their own words and based on their own experiences. It was therefore a lens for understanding the participants' perceptions and experiences of PE.

1.8.1.2 Qualitative research approach

Qualitative research is characterised by its aims. These aims attempt to understand a certain facet of social life and its methods in words instead of numbers and uses these words as data for analysis (Patton, 2014). Newby (2014) elaborates further by stating that qualitative enquiry involves feelings, thoughts, opinions and experiences being recorded and analysed to describe a specific phenomenon (Newby, 2014). Merriam (1998:23), who states that qualitative researchers focus on how people interpret experiences, echoes this view. These statements are true for my study, because I am interested in the opinions, thoughts and experiences of Grade R

teachers on their understanding of PE, as well as how they are experiencing the implementation of PE within the curriculum. This method of enquiry helped me attain a deeper perception and understanding of PE implementation in Grade R.

1.8.1.3 Type: case study

According to Merriam (1998:8), the purpose of a case study is to gain a detailed understanding of the situation and meaning for those involved. Case studies are mainly used in qualitative inquiry. Merriam (1998:8) states that the case study's distinctive feature is to deal with an assortment of evidence. Leedy and Ormrod (2014:143) describe case study design as researching a particular individual, programme or event in detail over an extended period of time. I chose to use the case study approach for this particular research project because I wanted to gain in-depth insight into the teachers' understanding and implementation of PE. The aim was to gain a holistic understanding of the participants involved in the study. A multiple case study was conducted in this research project.

1.8.2 RESEARCH METHODS

McMillan and Schumacher (2010:9) define research methods as the way data is collected and analysed. In discussing the methods used, reference is made to my role as researcher; the participants and research sites I have chosen to use; data collection methods; data analysis and the delimitations of this study.

1.8.2.1 The role of the researcher

Creswell (2010) states that the role of researcher as the main gatherer of data, particularly in a qualitative study, requires the identification of biases, assumptions and personal values, from the beginning of the study. Nieuwenhuis (2007) agrees with this view, and suggests that in a qualitative study, the researcher is seen as an instrument of research and therefore, needs to remain subjective throughout the study. In my study I utilised semi-structured interviews as well as document analysis as data collection strategies, which meant I had to take on a number of roles. I acted as an interviewer, examiner of documents, moderator and analyser. Creswell (2013) highlights a few important aspects to keep in mind when taking on the role of a researcher.

As a researcher, it was my responsibility to inform the school timeously of the date and time the interviews would be held. I first met with the principal of each school before conducting the interviews. This served to clarify details of the interview process and ensure the principal that the participants would be allowed freedom of speech and that their opinions would be valued. I also highlighted the fact that I would be recording the interviews and explained the reasons for this.

I then met with participants (some were individual interviews, others were conducted in pairs) and ensured them that they would remain anonymous. I conversed with them informally to create a relaxed and friendly atmosphere before beginning the interview. I kept eye contact with the respondent/s at all times and occasionally repeated the answers given (briefly), to ensure them that I was paying full attention and listening carefully to what was being said. I made sure that all the key points of the interview were addressed and on completion of the interview, I thanked the participants for their valuable time and their preparedness to share information with me for research purposes.

1.8.2.2 Participants and research site

The quality of a research project depends on the aptness of methodology and the instrumentation, as well as the appropriateness of the sampling strategy that has been chosen (Cohen, Mannion & Morrison, 2007). For this study, purposeful sampling was used to select the participants. Purposeful sampling is the selection of participants who will yield the most information about the topic under investigation (Leedy & Ormrod, 2014). Those selected for this study were Grade R teachers with a minimum of three years teaching experience in Grade R. Participants were all from the same geographical region, Tshwane, and were all employed at government schools. Another criterion was that participants had knowledge of CAPS. This was to ensure that they had the necessary background and expectations of implementing PE. All the schools in the study were inner city schools. Data collection took place at the respective schools, during the particular teacher's free periods or after school.

1.8.2.3 Data collection

As Maree (2012:88) asserts, data can be defined as bits and pieces of information found in the environment. The first step in collecting data is gaining access to the

research sites (Maree, 2012:88). For the purpose of my study, I used the following qualitative data collection instruments to gather data:

i. Direct (non-participant) observation

Creswell (2005) points out that the advantages of observation include the opportunity to record information as it occurs in a setting, to study actual behaviour, and to study individuals that have difficulty verbalizing their ideas. For the purposes of my study, I observed each of the participants presenting a PE lesson. My role was that of a non-participant observer. A non-participant observer is an observer who visits a site and records notes without becoming involved in the actual activities being performed by the participants (Creswell, 2005:212).

ii. Semi-structured interviews

Nieuwenhuis (2007) mentions that a semi-structured interview requires the participant to answer predetermined questions on the phenomena being investigated. However, it was not only prepared questions that were asked, but also spontaneous questions that arose during the interviews. Semi-structured interviews were conducted in pairs at two schools and with individual participants at one school.

iii. Document analysis

Lesson plans on PE and weekly preparation sheets were analysed as part of the document analysis process. Seabi (2012) states that these documents should be a rich source of information.

iv. Research journal

Throughout the research process, I kept field notes and a reflective research journal. My journal contained information as well as decisions, interpretations and personal reflections, experiences, thoughts and feelings about my work with the participants. I documented my new insights, intuitions, and broad ideas that emerged during the semi-structured interviews (Creswell, 2013). I started my reflective journal when I made initial contact with the identified schools.

1.8.2.4 Data analysis

Data analysis involves the examination and interpretation of data. This study adopts qualitative data analysis methods. According to McMillan and Schumacher (2006), qualitative data analysis is an on-going, cyclical process that is integrated into all phases of qualitative research. Siedel and Kelle (1995) explain qualitative data analysis (QDA) as the range of processes and procedures whereby we move from the qualitative data that has been collected into some form of explanation, understanding or interpretation of the people and situations we are investigating. The aim is to examine the meaningful and symbolic content of qualitative data. The process of QDA usually involves two things, namely, writing and the identification of themes. An inductive approach in analysing the data was used. It is a systemic process of examining, selecting, categorising, comparing, synthesising and interpreting data to address the initial propositions of the study (Yin, 2015; Leedy & Ormrod, 2014). This suggests that data analysis does not only occur at the end of the study but must in fact be done continuously as data is gathered. Inductive analysis was used to identify any research findings, which emerged from reoccurring, significant or dominant themes (Thomas, 2003). Analysis of narrative data involves examining and organising notes from interviews, reducing the information into smaller segments from which the researcher can see and interpret patterns and trends. Documents were analysed by the use of a checklist. I conducted the data analysis for this study myself. This was done to avoid data being misinterpreted or lost in translation. No specific tool was utilised to analyse the data. Coding of the data was done using Microsoft Word. Themes were generated from the data collected. The themes were then tabulated and discussed, with references made to the literature discussed in Chapter 2. This will be discussed in detail in Chapter 3.

1.8.2.5 Delimitations of study

This study was a small-scale study of limited scope. Three schools and six grade R teachers were included in the study. Therefore the findings are limited to these schools, however, the findings have the potential to be extrapolated and used more generally as suggestions for Grade R teachers to improve their understanding and implementation of PE.

The recommendations that are presented in chapter 5 are only relevant to the three schools, as well as to the teachers who formed part of the case study.

1.8.3 TRUSTWORTHINESS

Maree (2012) defines trustworthiness as the way in which data are collected, sorted and classified, especially if they are verbal and textual. Lincoln and Guba (2000) posit that trustworthiness of a research study is important in evaluating its worth. Trustworthiness involves establishing the credibility, dependability, transferability and confirmability of the study. A brief definition of the criteria used in this study is discussed in the next section.

1.8.3.1 Credibility

Credibility or the truth value of data refers to factors such as the significance of results (Maree, 2012). The credibility of criteria involves establishing that the results of qualitative research are credible or believable from the perspective of the participant/s in the research, therefore the participants are the only ones who can legitimately judge the credibility of the results (Lincoln & Guba, 2000). To ensure credibility I transcribed the participant's words verbatim and received feedback from the participants to ensure validity.

1.8.3.2 Dependability

Dependability refers to the stability and consistency of the research process and methods over time (Maree, 2012:140). According to Shenton (2004:71), Lincoln and Guba (2000) highlight the link between credibility and dependability, arguing that in practice, a demonstration of the former assists in guaranteeing the latter. Data collection and data analysis methods will ensure the stability and consistency of the research process.

1.8.3.3 Transferability

Trochim (2006:73) states that according to Guba's four criteria of trustworthiness, transferability refers to the establishment of background data to establish the context of the study and detailed explanation of phenomenon in question to allow comparisons to be made. The use of detailed description is recommended by Teddlie

and Tashakkori (2009:286), to enhance transferability. I anticipated that the results from this study would provide valuable data that could be used in the classroom.

1.8.3.4 Confirmability

Confirmability, according to Lincoln and Guba (in Trochim, 2006) refers to the degree to which the results can be confirmed or corroborated by others. Miles and Huberman (1994) consider that a key criterion for confirmability is the degree to which the researcher admits his or her own predispositions (Shenton, 2004:72). Semi-structured interviews were used to obtain results from participants and then confirmed with them.

1.8.4 ETHICAL CONSIDERATIONS

The researcher is considered to be the primary instrument in collecting and analysing data. The researcher carries the responsibility for adherence of ethical standards and realises fully that it is necessary at all times be open and honest in sharing the purpose of the research with the participants. In agreement with McMillan & Schumacher (2014), as qualitative researcher I conformed to the following ethics:

- Informed consent as dialogue- Participant permission was obtained, and were assured of confidentiality and anonymity;
- The intended use of data was explained and described;
- Confidentiality and anonymity- Settings and participants will not be identified in print;
- Privacy and empowerment- Participants were informed that the power and mutual problem solving that result from it may be an exchange for the privacy lost by participating in a study; and
- Caring and fairness – A sense of caring and fairness was part of the researcher's thinking, actions and morality.

1.9 OUTLINE OF THE STUDY

In CHAPTER 1, the reader is oriented by provision of a background discussion on the research. I clarified the phenomenon that I decided to focus upon, introducing the purpose of the study, and providing research questions. I also conceptualised the key concepts used in the study. I then introduced the theoretical framework and briefly stated the paradigmatic assumptions and methodological strategies used. Lastly, the quality criteria and ethical principles were discussed to ensure the quality of the findings to be presented in subsequent chapters.

In CHAPTER 2, I reviewed the literature that was relevant to the field of PE. I discussed holism, including Hettler's six dimensions of wellness and Miller's five levels of wellness. PE in the curricula was then discussed, followed by an exposition of learning through movement, which concludes this chapter.

In CHAPTER 3, I described and justified my choice of an interpretative, qualitative multiple-case study research design, and stipulated the selected methods for data collection, documentation, analysis and the way I have interpreted the results. I concluded by summarising methodological considerations for the research, including the quality criteria and ethical principles to which I adhered.

In CHAPTER 4, I presented and reported on the results of this study. This chapter includes the acquisition of data and information gleaned from the interviews, observations and document analysis. I also discussed the interpretation of the data collected.

CHAPTER 5 presents the results and recommendations of this study. I outlined the conclusions drawn and make recommendations based on these conclusions. Recommendations for further study are also presented in this chapter.

Chapter 2
Literature Review

"We have a brain because we have a motor system that allows us to move away from danger and towards opportunity" Hannaford, 2005:107).

2.1 INTRODUCTION

In the previous chapter, I introduced the focus, background, rationale, as well as the methodological choices for this study. In this second chapter, I begin by contemplating the concept of wellness from a holistic point of view, focusing more specifically on the physical dimension as an important component of children's well-being. Next, I explicate the interdependency of the sensory systems and the role of movement in children's holistic development. Thereafter an overview is provided on the different components of PE (PE) as a subject, focusing on the inclusion of PE as a subject in the Grade R curriculum and highlighting reasons why quality PE is important at the Grade R level. I conclude the chapter by explaining the theoretical framework of this study.

2.2 HOLISM

The primary focus of the subject Life Skills is on the holistic development of learners (DBE, 2011). This is in line with what Barnes and Lyons (1979:7) also believe, when stating that to educate the whole child, his heart and will must be reached, as well as his mind. Terms such as holistic education, whole child, holistic development and holism, have become embedded in the South African education vocabulary and refer to the cognitive, emotional, social, spiritual and physical areas of development (Porritt, 2001). Holism was added into the new policy frameworks of South African Education in an effort to add value to the process of learning and teaching. According to Porritt (2001:113), holism can be described as embracing the totality of something in the knowledge that it is so much greater than the sum of its component parts; things cannot be understood by the isolated examination of their parts. As outlined earlier, in the primary school education system of South Africa, there is only one learning outcome that alludes to PE (Department of Education, 2002a:7). However, it remains the nature and intention of PE to develop the learner holistically. Therefore, PE, by

virtue of its elements and sphere of influence, which includes movement, physical, affective, social and cognitive development, has the capacity, ability and potential for integration and assimilation with various learning areas. This type of subject matter infusion actually advantages the learners, as it creates the opportunity for them to have greater exposure to at least one or more of the elements of PE.

Singh (1996) states that holistic education focuses on the widest development of the whole person at the cognitive and emotional levels. The main aim of holistic education is to enable a person to become the very best people they can be, by interconnecting reality and experience. This is in contrast to traditional education, which tends to be fragmented (Singh, 1996). A main element of holistic education is its focus on the interconnectedness of experience and reality (Neves, 2009). Holistic education focuses on the relationship between the whole and the part (Miller, 2006). Nava (2001) suggests that holistic education, is without reservation the way to teach and educate children in the twenty-first century.

The World Health Organization took the lead in introducing a holistic definition of health in 1948 (Larson, 1999:123). Health was holistically defined as a state of complete physical, mental, and social well-being and not merely the absence of disease and infirmity (Larson, 1999:123). Many successive definitions of wellness include this central concept. In recent years, educational psychologists have suggested that the aim of holistic education is to assist learners to reach their full potential, or self-actualization as Maslow (1954) suggests. Holistic education includes the development of a person's intellectual, emotional, social, physical, artistic, creative and spiritual potential (Kocchar-Bryant, 2010). Edwards-Meyer and Louw (2012) posit that the concept 'wellness' was traditionally limited to fitness and health, but today it has a broader meaning. These authors see wellness as referring to health in mind, body and spirit, taking care of one's body, feeling good and enjoying life, linking one's self, family and friends and being hopeful and proactive in life (Edwards-Meyer & Louw, 2012:3). Two theorists, namely Hettler (1976) and Miller (2000) have developed models of wellness which include certain dimensions.

2.2.1 HETTLER'S SIX DIMENSION OF WELLNESS

Hettler (1976) describes six important dimensions that all contribute to the wellness of an individual. These dimensions fall into categories he labels emotional, occupational, spiritual, intellectual, social and physical dimensions, as depicted in Figure 2.1.

Figure 2.1: Adaptation of Hettler's model of wellness (1976)

Hettler (1976:1) states that the emotional dimension recognises the awareness and acceptance of one's feelings. He elaborates by explaining that emotional wellness includes the degree to which one feels positive and enthusiastic about one's self and life in general. It includes the ability to cope with feelings and related behaviours. It also includes the ability to work effectively with stress. The occupational dimension identifies personal accomplishment and development in one's life through work. At the centre of this dimension is the idea that occupational development is linked to one's approach about one's work. The contribution of one's distinctive talents and skills one brings to work, is personally meaningful and rewarding (Hettler, 1976:1). The spiritual dimension identifies our pursuit for meaning and purpose in human life. It includes the development of a deep gratitude for the depth and span of life. It highlights the natural forces that are present in the universe and encompasses thoughtfulness on the meaning of life as a personal practice, such as tolerating and encouraging the beliefs of others (Hettler, 1976:2).

Hettler (1976:1) postulates that the intellectual dimension deals with creative, stimulating mental activities. A healthy person develops his or her knowledge and skills and establishes the potential for sharing his or her gifts with others. The social dimension encourages one to contribute to the environment and community. It highlights the connection between others and nature. Hettler (1976:1) explains that when individuals begin a path of wellness, they become mindful of their importance in society and the influence that they have on several environments (Hettler, 1976:1). Finally, Hettler (1976:1) explains that the physical dimension recognizes the need for regular physical activity. Physical development encourages learning about diet and nutrition. It discourages the use of tobacco, drugs and excessive alcohol consumption. It is therefore evident that optimal wellness is gained through a combination of exercise and good eating habits.

CAPS (2011:18) claims to support the holistic approach to learning. It states that Life Skills rotate around the holistic development of learner (DBE, 2011:18). This implies that teachers should devote more attention to learning as a whole and take all areas into consideration (Hay, 2015:8). It is therefore, important that PE be integrated closely with other areas of learning and development. Miller (2000) also believes firmly in the advantages of holistic education.

2.2.2 MILLER'S FIVE LEVELS OF WELLNESS

Ron Miller (2000:5), a leading proponent of holistic education, explains holistic education as follows:

> *Holistic education is an effort to cultivate the development of the whole human being. Where conventional schooling traditionally reflects the view of the child as a passive receiver of information and rules, or at most as a computer-like processor of information, a holistic approach recognizes that to become a full person, a growing child needs to develop, in addition to intellectual skills, physical, psychological, emotional, interpersonal, moral and spirited potentials. The child is not merely a future citizen or employee in training, but an intricate and delicate web of vital forces and environmental influences.*

Miller (2000) identifies five levels of wellness that contribute to holistic development. Table 2.1 provides a detailed explanation of Miller's levels of wellness.

Table 2.1: Miller's five levels of wellness (2000)

Level 1: The whole person	This level consists of six important elements, all of which are integral for the holistic development of a person. These elements play an essential role in the process of learning. The six elements are: physical, intellectual, aesthetic, spiritual, emotional and social.
Level 2: Wholeness in Community	With regard to holistic education, the aim is to build and establish meaningful relationships in a stimulating environment that is conducive to learning.
Level 3: Wholeness in society	This level refers to the economic dimensions of society and the goals set by society as a whole.
Level 4: A whole planet	All learning processes occur within a global context.
Level 5: The Holistic Cosmos	This level deals with spiritual wellness.

Miller (2000) highlights the physical area of development as an important part of the first level of wellness. This level is integral to holistic development and should focus on PE, as part of holistic learning.

Over the years there have been many supporters of the holistic approach to education (Forbes 1994). Forbes claims that supporters of this approach were inspired by prominent theorists such as Piaget, Montessori, Gardener, Steiner, Jung and Maslow. Engels (1981) developed his biopsychosocial model, which also highlights the interconnection of all systems. Edward-Meyer and Louw (2012) use the metaphor of a wheel when referring to holistic wellness. They maintain that the premise of wellness is that for an individual to achieve optimal wellness, all dimensions should be developed in a balanced way.

The nature of PE addresses more than just the development of a healthy body in a healthy mind. PE addresses the educational needs of the child, in a holistic manner. When focusing on the cognitive development of the learner, teachers concern themselves with the critical thinking and intellectual skills of the child. Through PE, teachers can impart knowledge and understanding for participation in movement activities, in a healthy and safe manner and environment. Also through the medium

of PE, teachers can strive to impart knowledge and understanding relating to the function and development of the human body.

For the development of the physical and motor skills of learners, teachers can utilise PE activities. These PE activities will assist learners with the realisation of an acceptable level of physical fitness. Furthermore, when developing the physical and motor skills of learners, the main focus areas must include aerobic efficiency, muscular strength, flexibility and endurance. It is the intent of PE to provide learners with a broad variety of physical skills, thus enabling them to participate in a wide range of activities.

Embedded in the nature and scope of PE, is the affective domain, which includes social, emotional and spiritual outcomes. Values such as respect, discipline, honesty, camaraderie, commitment, fair play, loyalty and responsibility, are some of the disciplines promoted through PE. Then too, factors like the enhancement of self-esteem, co-operation, leadership and emotional control, are also promoted as outcomes, with PE being used as the vehicle to drive the process. To improve the social skills of the learner, PE focuses on interpersonal relationships such as teamwork, fair play, camaraderie and leadership. It also encourages the child to participate in positive physical, recreational and leisure activities. PE further concerns itself with the emotional skills of the learner. It promotes the appreciation of recreational, creative and competitive activities. In addition to this it motivates positive attitudes towards health, exercise, recreation, education, spirituality and generally, lifelong activity and healthy living (Wuest & Bucher, 1995:6-28).

Psychomotor learning refers to the learning of physical movement [motor] and a mental [psycho] component (Massey University, 2002:1). It can therefore be understood that psychomotor development concerns itself with the growth of the learners' mental activity, which includes aspects such as reflex movements, basic fundamental movements, perceptual abilities, physical abilities, skilled movements and non-discursive communication. In short, it means that the main focus is on the growth of the learners' physical fitness and their motor skills. This growth is a process, as it starts from the time that the learner is in the womb of the mother, to the time that the learner dies. The development is continuous. If given the opportunity,

somewhere during this process learners will be at a point where they are able to crawl, then walk, run and eventually even participate in recreational activities and play sport. Through various learning experiences and over a period of time, learners will reach a point where they can perform the relevant actions and movements more skilfully and gracefully, as well as potentially even execute these skills and movements to rhythm.

2.3 PE IN THE SOUTH AFRICAN CURRICULUM

PE, which is part of the subject Life Skills is focused on the holistic development of the learner. The national curriculum used in South African schools, namely the National Curriculum and Assessment Policy Statement NCS (CAPS). According to the Minister of Basic Education, Mrs Angie Motshekga in the Foreword of the English Home Language Foundation Phase CAPS document (DBE:2011a) the Revised National Curriculum Statement (2002) was reviewed in 2009 and revised due to on-going implementation problems and the CAPS was introduced.

CAPS is a single, comprehensive, and concise policy document, which has replaced the previous Subject and Learning Area Statements, Learning Programme Guidelines and Subject Assessment Guidelines for all the subjects listed in the National Curriculum Statement Grades R -12. It is important to note that the development of CAPS must not be seen as a new curriculum but only as a refined and repackaged National Curriculum Statement Grades R - 12. In CAPS, the Foundation Phase, the entire curriculum consists of the following four subjects: Home Language, First Additional Language, Mathematics and Life Skills. The subject Life Skills consists of Beginning Knowledge; Creative Arts; Physical Education, and Personal and Social Well-being (DBE, 2011a). A schematic overview of the CAPS curriculum for Grade R is given in Figure 2.2.

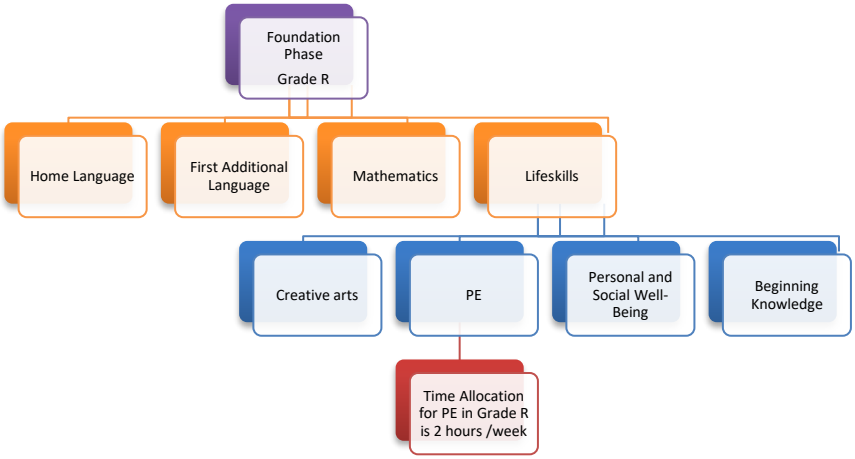

Figure 2.2: Grade R subjects in the CAPS (DBE, 2011)

In South Africa, Life Skills, creates opportunities for learners to capacitate and empower themselves in an integrated and holistic manner, and it provides opportunities for learners to develop necessary life skills, for example, one skill that learners must develop, is the maintenance of a healthy and active lifestyle. It is here where PE really comes into its own as a learning outcome and potential learning area, as amongst other things, it contributes to, for example, the functioning of most of the body's systems, namely, the skeletal, nervous and muscular systems. The time allocated for Life Skills in Grade R is six hours per week, two of which are allocated to PE. This in effect means that a time limit of 25 minutes is allocated to teaching PE in the Grade R programme. CAPS advocates teaching using a holistic approach. It clarifies that the Life Skills subject is essential to the holistic development of learners. It focuses on the social, personal, intellectual, emotional and physical growth of learners in an integrated approach (DBE, 2011). In teaching PE the emphasis is on perceptual loco-motor development, rhythm, balance and laterality (CAPS, 2011:9). This is backed by research undertaken by Hannaford (2005) and Pica (2004) which shows that a certain amount of movement is essential to a child's learning processes and that perceptual-motor development involves the concrete, physical dimensions of the environment.

Studies both internationally and locally (Breslin, Morton & Rudisil, 2008; Garrett & Wrench, 2007) have been conducted to compare different PE programmes and to investigate the potential impact on perceptual as well as cognitive skills. Blythe (2000), an expert in neurological development of movement, postulates that there is growing evidence to support the theory that control of balance, motor skills and integration of early reflexes are linked to academic achievement. However, it appears that PE is implemented inadequately in schools, and has a low status both

internationally (Hardman, 2008; Sherman, Trans & Alves, 2010), and in South Africa (Du Toit, Van Der Merwe & Roussouw, 2007; Amusa & Toriola, 2008). This may be a result of the lack of consensus regarding the aims and purposes of PE (Perry, et al, 2010). In investigating curriculum dissemination and implementation of PE it was found that teachers and principals had a positive disposition towards introducing and implementing PE but they do still have uncertainties about the implementation strategies. According to the mentioned authors, these uncertainties could possibly be dispelled if the curriculum was discussed with teachers before being presented to schools (Halbert & MacPhail, 2010).

For this study the Curriculum and Assessment Policy Statement (CAPS) issued by the DBE (2011) was used to frame the criteria theoretically for the implementation of PE in Grade R. The components and content areas (previously known as learning outcomes) set for Grade R were used as an indication of what is required from teachers when implementing PE in Grade R. CAPS (2011) states that the development of the learner's gross and fine motor skills and perceptual development are fundamental in the Foundation Phase (FP). It continues to say that physical and motor development is an integral part of the holistic development of the child (DBE, 2011:9). Although the implementation of a PE programme is prescribed in CAPS (2011) for Grade R learners, Burger (2010) found that teachers were unsure of what was expected of them with regard to the curriculum changes because of the lack of in-depth training. Teachers across South Africa were expected to implement the CAPS directives in 2012.

2.3.1 THE VALUE OF PE FOR CHILDREN'S DEVELOPMENT

PE can be defined as an educational process that uses physical activity as a way to assist children to acquire skills, fitness, knowledge, and attitudes that can contribute to their optimal well-being and development (Bucher & Wuest, 2009:9). PE focuses on perceptual loco-motor development, rhythm, balance and laterality, midline crossing, directionality, spatial awareness and body image (CAPS, 2011:9). These statements are backed by perceptual-motor theorists like Hannaford (2005) and Pica (2004), who see PE as an integral part of child development. They believe that a certain amount of movement is essential to a child's learning process and that perceptual motor development involves the concrete, physical dimensions of the

environment. Hannaford (2005), a neuropsychologist explains that cross-lateral movements assist children to cross the body's midline and that this helps simultaneously to activate both hemispheres of the brain in a balanced way which heightens cognitive functioning and makes learning easier. According to Pica (2004:4-5), the basic reason why children must move is to improve the development of movement skills that are essential for learning.

Vives-Rodriguez (2005) explains that PE for young children is more commonly called movement education. The acquisition of fundamental movement skills and concepts is the current focus of PE in ECD. These movements are the foundation for more complex movements needed for fruitful participation in recreational and sports activities. These skills should be learnt and practised during ECD. Children between the ages of 3 and 5 are believed to be developmentally ready to learn and practise fundamental movement skills and concepts (Gallahue & Ozmun, 1996). Lawrence (2012:70-83) maintains that fundamental movement skills are divided into locomotor skills, stability skills and manipulation skills. These skills focus on specific body parts, making it easy to observe the development and performance level achieved.

PE can offer a child various benefits, including improved health; social and emotional advantages and intellectual benefits. In recent years there has been growing concern about obesity expressed in the media and in medical circles (Fitzpatrick, 2013). Fitzpatrick (2013) further states that physical activity and nutrition are two of the major links to the problem of obesity and that teachers should become engaged in informing young people about the risks of obesity. Booth and Chakravarthy (2002) explain that in the US almost 70% of adults are inactive. Sedentism, or a pattern of inactivity, is thought to begin early in life. Thus it is important that a lifestyle which includes physical activity is inculcated among children; this is being seen as a national priority. Vives-Rodriguez (2005) explain further that according to the Centre for Disease Control (2000), since 1980 the percentage of young overweight children has doubled. Physical inactivity has contributed to a shocking 100% increase in the predominance of obesity among children in the US since 1980. Koplan and Dietz's study conducted in 1999 explains that 60% of overweight five to ten-year-old children already have one or more risk factors for chronic health conditions such as high blood pressure, hyperlipidaemia, and increased insulin levels.

Local studies mirror these findings. Research led by McVeigh, Norris and De Wet (2004); by Sport and Recreation South Africa (2005); and Armstrong, Lambert, Sharwood & Lambert (2006), all postulate that in South African there are inadequate levels of physical fitness, physical inactivity, overweight and obesity among children. The statistics show that the percentage of overweight and/or obese teenagers increased between 2002 and 2008 from 17% to 20%, and from 4% to 5%, respectively (Walters, 2014:358). Similarly, a survey conducted by the South African National Health and Nutrition Council found that there was a high occurrence of overweight and obese girls in the country and more generally, among people living in urban areas (Human Sciences Research Council, 2013). In 2011, the Sports Science Institute did a study and found that the percentage of youth who were moderately physically active had decreased from 45% in 2002, to 43% in 2008 . This research project showed that almost 42% of the youth were doing very little or no weekly physical activity (Walters, 2014:358). A study completed by Van Hout, Young, Bassett and Hooft (2013) shows that 48% of learners participate in sport on an occasional basis and that a small number of children participated in sport once during the week.

According to the Alliance for Childhood (2004:1) damage is being done by exposing children to electronic technologies. Increasing numbers of these children spend hours each day sitting in front of screens instead of playing outdoors, reading, and getting much-needed physical exercise. Levels of face-to-face social interaction are decreasing too – all of which impacts negatively on the essential stimulation necessary for the growing mind and intellect. Fitzpatrick (2013) states that obesity is a worldwide trend and that children are a particular focus because they are less interested in physical activity. Today's children are not exposed sufficiently to physical activity because they are instead watching television, playing on their Play Station's or I-pads or engaged in an electronic game on their Smartphones (Alliance for Childhood, 2004). Statistics South Africa conducted a study in 2013 and noted that South African children also watch, on average, close to 3 hours of television daily (Walter, 2014). This inactive lifestyle has resulted in children having low muscle tone which in turn impacts on their gross and fine motor development.

Researchers such as Tomporowski, Davis, Miller and Naglieri, (2008) are intrigued by the development of movement and how this impacts on learning and on how the

brain functions. Tomporowski et al. (2008:111) maintain that since the time of the ancient Greeks, there has been an implicit belief that physical activity is linked with intellectual ability. Shawn (citied in Zukowski, 1990), states that as long as there is life, there is movement, and to move is hence to satisfy a basic and eternal need. Zukowski and Dickson (1990:2) support this opinion and suggest that infants move to learn and as they grow older they learn to move with greater skill (1990:2). They go on to say that the role of teachers is to inspire children to discover and extend this urge to move and in doing so, educators nurture self-expression and problem solving. As teachers we support this exploration but children do not learn mature patterns of movement on their own. Teachers must inculcate these skills so that exploration becomes more meaningful and can be applied to various settings. Mayesky (2009:346) agrees with Zukowski and Dickson (1990:1) by saying that physical development is the young child's first means of nonverbal communication and that physical activity provides one of the most important avenues through which a child forms impressions about him/herself and his/her environment. Glazener (2004) further emphasises that learning takes place when the body encounters a physical sensation, which causes neurons in the brain to make connections and create new pathways. Glazner goes on to say that movement is complex and for children to be able to sit down and write using a pencil, they need to have the foundational motor skills needed. These skills are developed in the first few years of a child's life. In Glazner's (2004) opinion therefore, the best way to optimise learning is to increase the processing speed of information received from the senses and thus increase the response time via the motor system.

According to Ridgers, Stratton and Fairclough (2006); Verstraete, Cardon, De Clercq and De Bourdeaudhuij (2006); and Demetriou and Höner (2012), schools are perfect settings for the advancement of PE. This is because they have easy accessibility to children and because children spend most of their time at school. Schools have also been found to be strong promoters for life-long sports involvement (Sport and Recreation South Africa, 2005). Another study by Mota, Silva, Santos, Ribeiro, Oliveira and Duarte (2005:269) agrees and adds that PE and play breaks are the two main times of day that children have the opportunity to be physically active.

Mayesky (2009:346) postulates that children experience physical activity as a pleasurable and fulfilling activity and this can be attributed to the young child's

proficiency in all manner of large and small motor skills during the early years of life. Well known theorists such as Ayers, Cratty, Delacato and Kephart (cited in Krog, 2010:1) whose work dates back to the 20th century, have maintained that physical activity reflects neural organisation and offers the necessary motivation for optimal development and functioning. Learning through movement is clearly of great significance.

2.4 LEARNING THROUGH MOVEMENT

Essential learning takes places through movement. It is an integral part of a child's development and highlights the importance of implementing/teaching PE on a regular basis in schools, especially during the early learning years (Krog, 2010). In the next section I discuss the sensory system and the four phases of motor development.

2.4.1 THE SENSORY SYSTEM

According to Fredericks, Kokot and Krog (2006); Goddard (2000); Pheloung (2003); Cheatum and Hammond (2000); and Hynes-Dusel (2002:18), learning happens through numerous senses, specifically through, sight (visual), hearing (auditory), touch (tactility), taste (gustation) and the body (kinaesthetic) all of which are part of the sensory system. The degree of learning improves as more senses are used. Children need to learn spatial awareness, which encompasses how the body moves in space. They also need to be aware of directionality, which is what their bodies are able to do. Children need to become aware of laterality in their bodies, i.e. left and right, top and bottom. The sensory system's sole responsibility is the processing of sensory information. It forms part of the central nervous system (CNS) and it is responsible for processing sensory information. The sensory system consists of sensory receptors, neural pathways and parts of the brain involved in sensory perception. A sense is a mechanism by which information is received from the external environment (outside the body), as well as the body's internal environment.

Lombard (2007) highlights seven important senses that help us access the world around us. Krog (2010) reiterates that these basic sensory systems, are vital in a child's learning and functioning. For a child to function optimally, he/she needs to know that these systems are interdependent. The lack of this knowledge leads to unawareness of the role of movement which is at the heart of all learning (Krog,

2010:71-72). The systems that will be discussed below are: the vestibular (balance) system; the proprioceptive (body in space) system; the tactile (touch) system; the visual (sight) system; and finally, the auditory (hearing) system.

2.4.1.1 The vestibular system

Goddard-Blythe (2004:11-12) explains that the vestibular system is believed to have evolved some six billion years ago. This system is unique in that it has no special sensation of its own but plays a determining role in a person's ability to balance. She goes on to say that we are not conscious of balance when it is functioning well. She explains it is as the ability of the body to function within the force of gravity or to know its place in space (Goddard Blythe, 2000:12). Pyfer (as citied in Goddard, 2002:59) states that vestibular input is essential for static and dynamic balance development. It is also important for the development of eye tracking and motor planning. Children who develop vestibular functioning slower than normal are behind in all gross motor patterns, which entail coordination of both sides of the body. They struggle with sustaining posture, with eye-hand coordination and with fine motor control.

Oden (2017) explains that the vestibular system plays an extremely valuable role in human development and that that the vestibular system provides the leading input in our movement and orientation in space. According to Lombard (2007) the vestibular system is the body's GPS, because it tells us our position in space. The vestibular system helps the entire nervous system to function effectively by notifying it where it is in relation to the pull of gravity; in other words, it helps the body to maintain stability and also has a strong effect on the muscles that control posture and muscle tone (Krog, 2010). The vestibular system informs us whether we are lying down, standing up or hanging upside down. It does this in conjunction with the proprioceptive and visual systems. Furthermore, it influences ocular-motor control of eye movements to help the body maintain a stable visual field during movement. The vestibular system also informs us if we are standing still or are in motion; it gives us information on our speed and how to control movements such as crawling and rolling (Krog, 2010:25).

2.4.1.2 The proprioceptive system

According to Oden (2017) Proprioception (from Latin *proprius*, meaning one's own and perception) is the sense of the position of parts of the body relative to other neighbouring parts of the body. Williamson and Anzalone (2001:9) concur in maintaining that proprioception is the location sense which offers a constant internal awareness of one's posture. Proprioception can thus be defined as the body's positioning system, specifically the consciousness of when a part of the body is in motion (Williamson & Ansalone, 2001:9). Lombard (2007:23) agrees in saying that the proprioceptive system can be defined as the hidden sense or the body's internal eyes. It permits us to move from one place to another and tells us how to move in order to get there.

Hannaford (2005:48) defines proprioception as the body's sense of itself in space. Receptors are located in the muscles, tendons, ligaments and surrounding joints. These muscles let the body know about its physical location and give important feedback for a person to move and maintain balance. As Seaman, DePauw, Morton and Omoto (2003:50) put it, the proprioceptive system senses pressure and vibration such as pushing, pulling or squeezing. Because it plays a key role in the motor action of reflexes, automatic responses, and planned movement, it can be viewed as critical to children's motor development.

Seaman et al. (2003) postulate that proprioception is necessary for the growth of body schema. A child's body schema is a map of the relationship and interaction between body parts. Without body schema a child will find it difficult to progress through the developmental stages of laterality, directionality and directional discrimination. The vestibular, visual and proprioceptive systems give us continuous feedback on what is occurring within the body and where the body is in terms in the environment. The interaction between these systems supports the body in regulating an upright position and maintaining balance. This feedback assists the child in determining how much force is necessary when writing, drawing or sitting on a chair, for example. Motor planning involves organising a series of purposeful movements and must occur before the development of motor skills (Hannaford, 2005).

Oden (2017) describes kinaesthesia as an alternative term for proprioception but suggests that kinaethesia does not involve the sense of equilibrium and goes on to

explain that kinaesthesia is a key component in muscle memory and hand-eye coordination, and training can improve this sense (Oden, 2017:1). The ability to swing a hockey stick effortlessly or kick a soccer ball, needs a finely tuned sense of the position of the joints. This is essential because the eyes need to concentrate on the ball and kinaesthetic sense needs to handle the movement of the body that is required to meet the ball.

2.4.1.3 The tactile system

According to Oden (2017:1), the tactile system or touch system refers to stimulation reaching the central nervous system from receptors in the skin. Cheatum and Hammond (2000:225-227) claim that the tactile system helps the child differentiate between the moisture of the skin and the texture, shape, size, weight of objects when held in the hands. It allows the child to determine if clothing is comfortable, scratchy, tight, light or heavy and to differentiate between something comfortable and uncomfortable, or whether he or she likes people standing in close proximity. More importantly, it gives a child the ability to determine whether a person's touch is pleasant or not. Children also have the ability to say where on the body they have been touched. Seaman et al. (2005:51) describe this system as the touch-pressure or tactile-touch system and explain that there are tactile receptors that lie beneath the skin. Krog (2010:28) explains that touch refers to the primary sense, characterised by the reception of non-discrimination, non-localised and generalised information. The tactile sense, which allows one to distinguish between and localise tactile stimuli, is developed at a later stage.

Kranowitz (2005:320) postulates that the tactile system receives a variety of sensations, primarily through receptors in the skin and hair. These sensations include pressure, vibration, movement, temperature, and pain. Hannaford (2005:44-45) explains this by saying that the skin, which is the largest organ of the body, is equipped with nerve sensors for heat, cold, light, touch, pressure, pain and proprioception. According to Krog (2010:28) this system allows children to differentiate and orientate themselves to the environment. It provides them with information on what they are touching and the texture of the surfaces they touch. The skin then sends information to the brain regarding touch, pain, temperature and pressure (Goddard, 2002:60-61).

2.4.1.4 The visual system

Vision is multifaceted and enables us to learn more about where we are and what is happening around us (Krog, 2010:28). Vision is developed by integrating the senses – it is not merely whether a child can see or not. Lombard (2007) agrees with this by explaining that vision takes up more space in the brain than any other sense in our bodies. Kranowitz (2005:156) points out that vision is established through movement and that movement is the basis of all learning in that it teaches the eyes to make sense of things around him or her. A child sitting in front of the computer or sitting still while reading is not developing vision. Kranowitz (2005:156) goes on to explain that the connection between the vestibular and proprioceptive systems has a profound effect on vision. The brain is filled with many sensations while sitting, standing on two feet, or lying down. This in turn facilitates the necessary eye movements. Our visual

skills are made stronger through movement and participating in purposeful activities helps the eyes to become coordinated. Movement, balance, muscle control, and postural responses are therefore, fundamental ingredients for proper vision

development (Krog 2010).

Goddard (2002) and Delacato (1970) agree that the visual system is vital for academic learning. Skills for reading, writing, spelling and mathematics, all depend on the ability to see written symbols. Krog (2010:29) concurs, explaining that children use their eyes to guide them in almost every action they take, e.g. crawling, walking, eating, looking at picture books, playing and participating in motor skill development. Visual perception is a learned process; it implies processing the images that have been gained through perception into useful information. Children require complex visual perception in order to read. They must learn how to link the letters and words they see and interpret how they sound and what they signify (Goddard, 2002). Kids Sense (2017) highlights the building blocks that are necessary to develop visual perception. These are summarised in Table 2.2.

Table 2.2: Building blocks for visual perception (Kids Sense, 2017)

Sensory processing	Accurate registration, understanding and reaction to sensory stimulation in the surroundings and the child's body.
Visual attention	Being able to concentrate on vital visual information and block out insignificant background information.
Visual discrimination	Discrimination of differences or similarities in objects based on size, colour, shape, etc.
Visual memory	Recollection of visual characteristics of an object.
Visual spatial relationships	Understanding the relationships of objects within the environment.
Visual sequential-memory	Remembering a sequence of objects in the correct order.
Visual figure ground	Location of an object in a busy background.
Visual form constancy	Knowing that a form or shape is the identical, even if the size or position has been changed.
Visual closure	Recognition of a form or object when portion of the image is omitted.

2.4.1.5 The auditory system

The vestibular system and the auditory system (also known as the hearing system) work as a unit to process vibrations of movement and sound (Kranowitz, 2005). The hair cells in the receptors of the ear, process information in the hearing system. Hearing cannot be learnt. It is a skill that we are born with. We can either hear, or we are deaf. This system develops in unison with the vestibular system in utero. It connects with muscles in the body assisting it to regulate equipoise and synchronisation (Kranowitz, 2005).

Seaman et al. (2003) agree that the auditory system is closely linked to the vestibular system and note their closeness to each other inside the inner ear, sharing the same cranial nerve. The auditory system aids in regulating balance, body movement and coordination. Many of the sensory messages are sent to the brain via the ears which are integral in assisting to control the eyes when reading; and the arm, hand and fingers when writing (Van der Westhuizen, 2007). Kranowitz (2005) recognises the profound influence the ear has on physical development. It is important for hearing,

balance and flexibility, as well as bilateral coordination, breathing, speaking, vision, social relationships and academic learning.

The literature clearly states the importance of the sensory system in a child's development. PE plays a significant role in the healthy development of the sensory systems. The four phases of motor development discussed in the section that follows, serve to highlight the progression of motor development from birth to adulthood.

2.4.2 FOUR PHASES OF MOTOR DEVELOPMENT

The four phases of motor development highlight the different stages that a human being goes through from birth to adulthood. This provides a better understanding of how motor development progresses and underlines the importance of the fundamental stage which pertains to children between that ages of two and seven. Figure 2.3 illustrates the four phases of motor development, which were identified by Gallahue, Ozmun and Goodway (2012).

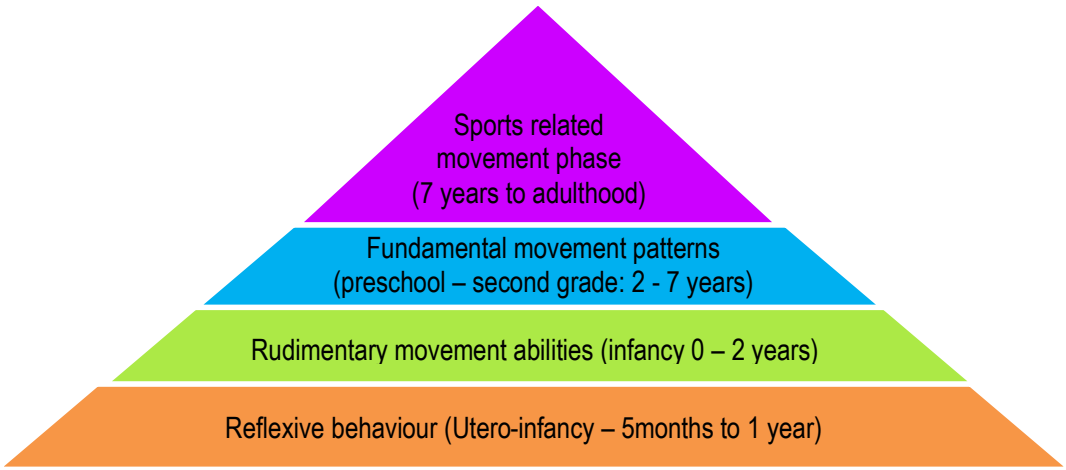

Figure 2.3: Phases of motor development (adapted from Galluhue et al., 2012)

Phase one is the reflexive movement phase. It ranges from birth to about 1 year of age. In this phase the infant participates in reflexive movements. Phase two is the rudimentary movement phase which includes the basic motor skills learnt in infancy: reaching, grasping and releasing objects, sitting, standing, and walking. The skills of the rudimentary movement phase acquired during the first 2 years form the foundation for the fundamental phase. Phase three, the phase that is relevant for this

study is the fundamental movement phase and occurs during the preschool years ranging from the age 2 to 3 years to age 6 and 7 years. The final phase is the specialized movement phase which begins at about 7 years of age and continues through the teenage years into adulthood.

Krog (2010) explains that during the fundamental phase, children achieve better control over their gross and fine-motor movements. According to Logan, Robinson, Wilson and Lucas (2011), children do not always develop fundamental motor skills naturally through the maturation process – these motor skills need to be *taught*. Lawrence (2012) states that motor skills such as running, jumping, throwing, and catching are refined during this phase of motor development. In order for control of each skill to be progress and develop, the initial, as well as, elementary stages need be achieved. Only then does one reach the mature stage. The skills learnt in this stage are initially learnt in isolation. Once they have been mastered, they can then be combined with other skill to form movements that are coordinated. According to Krog (2015) fundamental movement patterns are established during this phase. She further states that movement is general rather than precise, with movement patterns that are characterised by the ability to move in various ways to a given stimulus. Lawrence (2012) agrees with this by saying that a top-down approach should be considered. This is done by first considering what the head is doing, then what the arms are doing, moving onto the main body and finally the legs and feet. The environment should also be structured so that the child can be successful and achieve their maximum potential during this phase (Krog, 2010:68). The following section highlights the areas of development that is enhanced by PE.

2.4.3 AREAS OF DEVELOPMENT ENHANCED BY PE

Krog (2010) identifies the areas of body awareness; spatial awareness; topology; the concept of foreground and background identification; the ability to focus on a specific point; following an object through space; and problem solving. These areas of development are integral in learning and children should be presented with opportunities to develop these areas (Krog, 2010).\

2.4.3.1 Body awareness

Body awareness can also be referred to as body image or body concept (Krog, 2010). Cheatum and Hammond (2000) explain that body image is self-concept; it is the child's awareness of his or her own body parts. They also mention that that body schema is an internal consciousness of where the body parts are positioned in relation to each other (Cheatum & Hammond, 2000). They go on to say that a child should be able to name minor parts of the body by the age of 7 (Cheatum & Hammond, 2000). Having a positive body image will permit a child to experience movement successfully. It is important for children to first recognise objects in relation to themselves before they are able to recognise objects in relation to each other (Nel, Nel & Hugo, 2013). Movement encourages a sense of self and children develop an understanding of who they are and what they are able to achieve. Proprioception contributes to the growth of a self or body image (Hannaford, 2005).

2.4.3.2 Spatial awareness

Movement in space utilising the entire body builds the basis for school readiness, the mastery of tasks like reading, writing and basic maths (Krog, 2010). The notion of space and the position in space cannot be taught to a child, it has to be experienced by the child through a variety of activities focused on spatial awareness (Corso, 1993). Through movement, a child can experience his or her position in space. It is important for children to be presented with opportunities that enable them to orientate their bodies in space. This entails going under or over a chair; in and out of a box; standing beside or in front of a table (Krog, 2010). These movements are integral in assisting with letter identification and the orientation of symbols that appear on a page. Corso (1993) and Burn (2007) posit that a child who cannot distinguish left from right will not know where to begin reading, will miss lines or could stop reading midway. Krog (2010) agrees with Burns and Corso, stating that these skills are learnt through movement and are important for reading and writing.

2.4.3.3 Topology

Topology can be defined as the internal map of each child's environment (Calitz, 1997:34). Movement offers a child brand new opportunities to experience spatial orientation and enriches spatial learning (Jensen, 2000b:34). (Krog, 2010:62)

postulates that spatial orientation forms the main ingredient for problem solving because it provides children with the knowledge of direction and position in space. This perception is crucial in the classroom, particularly when reading, writing and mathematical calculations are being taught (Krog, 2010:62).

2.4.3.4 Concept of foreground and background identification

Krog (2010:62) explains how important it is for children to be able to differentiate between objects that are close, distant, in the foreground and in the background. These concepts are connected to spatial concepts and topology. Calitz (1997:34) shares a good example by saying that when children throw a ball into a hula hoop, they needs to know the appropriate distance to throw as well as the direction in which to throw. Children must also be able to distinguish what is in front of them and what is on the board. This can be developed through various activities in PE lessons.

2.4.3.5 The ability to focus on a specific point

Hannaford (2005:116) explains that upon entering school, children are expected to improve their focus rapidly in order to see two-dimensional letters on paper. The changeover from three-dimensional (working with concrete objects in preschool) and two-dimensional, outlying focus, is very sudden and unnatural. Krog (2010:62) explains that children are expected to catch a ball; write in a particular place; read a word. The child should therefore, be able to focus on a specific point and keep his or her focus until the task is completed. Krog (2010:62) claims that movement helps with the development of the ability to focus. Ocular motility is required to keep an eye on a ball, until it is caught. Kokot (2006:71-72) agrees that this motor skill is also required in drawing, reading and writing exercises.

2.4.3.6 Following an object through space

Krog (2010:63) says that it is impossible to teach children the skill of following an object through space, other than by providing practical opportunities for them. She mentions, for instance, to follow the ball with the eyes only, anticipation where the ball is going, positioning to catch and anticipating the force and direction the ball needs to reach the target (Krog, 2010:63). Calitz (1997:34) states that when it comes to following a written line from left to right and back to left, as well as to continue with

the following line, the skill to follow an object in space is vital. This action is required for reading and written work. Frequent practices in moving, kicking and throwing will help with obtaining speed to read.

2.4.3.7 Problem solving

According to Calitz (1997:35) young children solve problems by trial and error. Krog (2010:63) agrees and points out that movement assists with the skills necessary for problem solving that are acquired on the basic level in the early years. Exploring the environment and creative problem solving is crucial in the cognitive thinking process. Krog (2010:63) further explains that activities like climbing trees, building puzzles and packing blocks, assist in the development and acquisition of the essential problem solving skills needed for learning.

All the skills discussed in this section are fundamental to a child's learning process. Teachers must be aware of the different stages and areas of development. The theoretical framework of this study will now be explored as background to examining curriculum implementation of PE.

2.5 THEORETICAL FRAMEWORK

Maree (2012:34) explains that a theoretical framework provides an overview of perspectives and research results with reference to the chosen topic. It provides the necessary platform to plan the study on the basis of existing ideas in the field. Maree (2012) maintains that a theoretical framework also provides a paradigm in terms of which the results of the study can be interpreted; it situates the results within a broader body of knowledge. To locate, explain, and interpret my investigations, I relied upon the Concerns-based Model of Teacher Development (CBMoTD). In the next section, I provide an overview of the model and explain how I applied it to my study.

2.5.1 THE CONCERNS-BASED MODEL OF TEACHER DEVELOPMENT

The CBMoTD developed by Fuller (1969) was used as a theoretical lens through which I examined the process of curriculum implementation with regard to PE. The CBMoTD was developed by Fuller in the 1960s and has had a significant impact on research into teacher development. Both (2010) argues that he CBMoTD is still

relevant to the professional development of teachers in an ever-changing education system. This model has been used widely in studies on implementing change by teachers.

Richardson and Placier (2001) regard Fuller's CBMoTD as a classic stage theory, in which three stages of concern can be distinguished, namely *self*, *task* and *impact* concerns. Concerns of *self* include issues like feelings of adequacy and being able to cope in the classroom; *task* concerns are matters such as responsibilities, classroom management and available resources; and *impact* concerns include issues like being able to address the needs of the learners and helping learners to reach their full potential. In the following figure, a visual overview of the model is presented, followed by a detailed discussion of how the model is applied to this study.

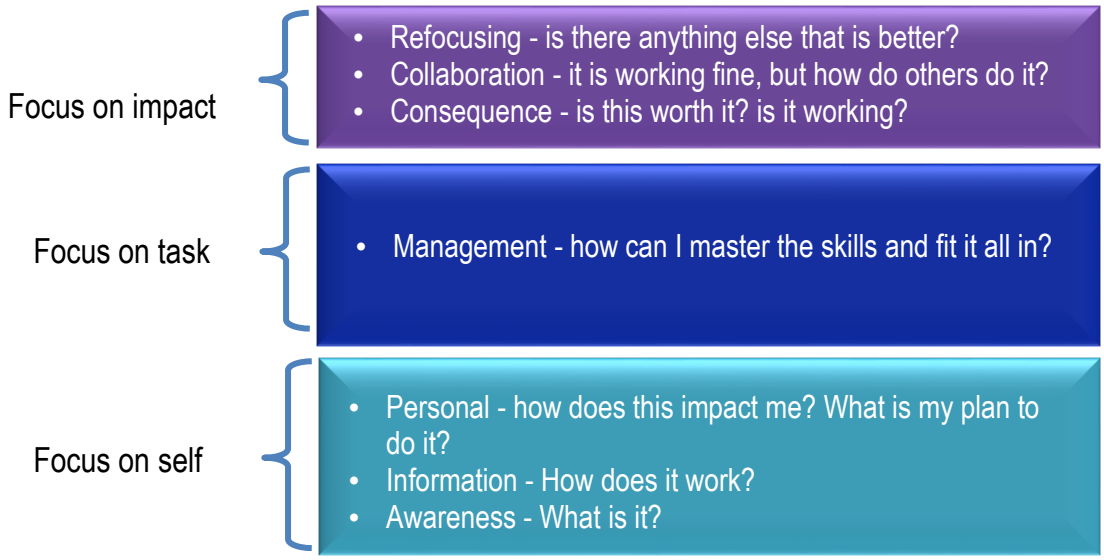

Figure 2.4: The Concerns-based Adoption Model (adapted from Fuller, 1969)

Fuller's (1969) Concerns-Based Adoption Model is a developmental process following a hierarchical order. It addresses concerns about a teacher's own needs, and the needs of the learners in three stages. For the purposes of this study, the three stages of concern will refer to those Grade R teachers have with about training; the resources and support available to them in carrying out their responsibilities in implementing CAPS; and the impact PE will have on the learner.

Stage one of the model focuses on teachers and their personal experiences with regard to PE and the teacher's implementation and understanding of PE. Here I used

the data gathered in the interview process to gauge the teachers' depth of understanding of PE and the relevant terminology. I also gathered data on the information they had on PE in the CAPS framework and how well they understood the implementation practices to conduct PE lessons. Stage one also assisted me in gaining perspective from the participants on how PE impacts their teaching practices and how they fit PE into their daily programme.

Applying stage two of the CBMoTD I gained information on how my interviewees implemented PE lessons. This assisted me in understanding their classroom management styles; how they managed their time and where PE fitted into their planning and preparation. I also sought information on who they felt should be responsible for planning PE lessons and ensuring PE lessons were implemented correctly. At this stage the availability or lack of resources was also discussed.

The stage three focus was on the impact of implementing PE. Here my focus was to determine whether teachers collaborated while preparing PE lessons and whether they discussed and/or compared the relative success of their lessons with their colleagues. I believe it allowed the teachers to refocus and evaluate their own practices and to determine if they could improve their current implementation practices. I also got the opportunity to determine whether the teachers understood the importance of the learners holistic development and the areas of learning that are developed through PE (see Chapter 2). Fuller's CBMoTD is as relevant in education today because it is a dynamic model that adapts to changing conditions and is a useful tool in evaluating the impact of change in the teaching profession.

2.6 CONCLUSION

This chapter offered insights from theorists in the field on the importance of PE in the education of young children. Literature pertaining to PE was reviewed closely. This analysis was situated initially in the holistic model of Hettler (1976) and Miller (2000) on the physical development of the child before turning to a discussion of the sensory systems as part of the development of gross and fine motor skills. A section on learning through movement was also presented and the chapter concluded by explaining the theoretical framework of the research project. In Chapter 3, I discuss the research methodology that underpins this study.

Chapter 3
Research Methodology

3.1 INTRODUCTION

In the previous chapter, I reviewed literature that was relevant to the field of PE beginning with a discussion of holism, which included Hettler's six dimensions of wellness and Miller's five levels of wellness. PE in the curricula was then discussed followed by learning through movement.

In this chapter, I discuss the methodology applied for gathering information, including the research design and methods utilised.

3.2 RESEARCH DESIGN

Luttrell (2010:4) describes a research design not as a blueprint that is set in stone, but as a plan that follows an ongoing set of principles that help to guide that decision making throughout the qualitative study. Along the same lines, Leedy and Ormond (2014) define a research design as the general strategy for solving the research problem. In the section to follow, the research paradigm, the qualitative approach and the case study method will be discussed.

3.2.1 RESEARCH PARADIGM

Burton and Bartlett (2009:18) describe a research paradigm as a model of research that reflects a general agreement on the nature of the world and how to investigate it. Nieuwenhuis (2007) agrees with this statement by postulating that a paradigm is a lens, a mean through which reality can be interpreted. Interpretivism is rooted in hermeneutics. It is the study of theory and practice of interpretation (Nieuwenhuis, 2007). Creswell (2013) defines interpretive enquiry as a form of enquiry in which researchers make an interpretation of what they see, hear and understand. Creswell (2013) suggests that the interpretivist paradigm can be also called the constructivist paradigm since it is rooted in the fact that realities are multiple and socially constructed. Interpretivists adopt a relativist ontology, where a single phenomenon can have multiple interpretations and there is no basic process by which truth can be

determined. As such, the aim to get a deeper understanding of the phenomenon and its complexity in each unique context, and not to generalize or extrapolate (Creswell, 2013). In this study, I aimed to gain an in-depth understanding of what teachers understand about PE, as well as their practices in implementing PE lessons.

The purpose of research in interpretivism is understanding and interpreting everyday happenings (events), experiences and social structures; it also looks at what values people attach to these phenomena (Collis & Hussey, 2009; Rubin & Babbie, 2010). Interpretivist's believe that social reality is subjective and nuanced, because it is shaped by the perceptions of the participants as well as the values and aims of the researcher; therefore interpretivism is of particular relevance to my study because my focus is on gaining the participants perceptions on the implementation practices of PE. Burns (2000), states that the interpretivism paradigm emphasises that knowledge is acquired and transmitted through language. Interpretivism places the emphasis on understanding individual interpretations of the world (Cohen, Mannion & Morrison 2007). Terre Blanche and Durrheim (2006) say that instead of isolating and controlling variables, the interpretive researcher becomes the instrument through which to describe and understand specific aspects of the social world.

An interpretative paradigm is furthermore suitable for my study, because it attempts to understand phenomena through the meanings that people assign to them (Deetz: 1996). Denzin (1994) describes some of the basics of interpretive research, describing interpretation as an art which is neither formulaic or mechanical. It can be learned, like any form of storytelling, only through doing. Fieldworkers cannot make sense of or understand what has been learned until they sit down and write the interpretive text. This should be done by telling the story first to themselves, and then to their significant others, and only then to the public. This will be fitting for my particular study, because I used interviews to gather data and interpreted these based on the knowledge gained from the participants. For the purposes of this study, interpretivism provided a lens for understanding how PE is implemented in Grade R. It gave me more insight on the participants' understanding of PE and how it is being implemented according to CAPS.

3.2.2 QUALITATIVE APPROACH

Qualitative research is a type of educational research in which the researcher relies on the views of participants. The researcher asks broad, general questions; collects data consisting largely of words from the participants; describes and analyses these words for themes, and conducts the inquiry in a subjective, biased manner (Creswell, 2013). Leedy and Ormond (2014) explain that all qualitative research approaches are similar, because the phenomenon is investigated in its natural setting and the approaches try to capture and examine the phenomenon. For the purposes of this study I entered the Grade R section of the school, which is the natural setting of the participants. This enabled me to enter the participants worlds to collect first-hand data. I used multiple methods of data collection to gain a comprehensive, holistic view of the teachers' understanding and implementation of PE. The main focus was to capture and interpret the meaning/s which participants attached to their experiences. An inductive data analysis approach was used, allowing me to work from specific to general, in other words, from gathering bits of data to highlighting specific themes that emerged.

Qualitative research is characterised by its aims, which relate to understanding some aspect of social life, and its methods which (in general) generate words, rather than numbers, as data for analysis (Patton, 2014). Creswell (2013) identifies three characteristics of qualitative research. He states that researchers should i) listen to the views of the participants in the study; ii) ask general, open-ended questions; and iii) collect data in places where the participants live and work. He suggests that it is the role of the researcher is to advocate change and better the lives of the participants.

It is with these characteristics in mind that I have chosen to use a qualitative enquiry for the purposes of my study. It is important for me to engage with participants and listen carefully to their views and opinions. This forms the most integral part of my research. The interview questions I have formulated are open-ended and give the participants the opportunity to share their views without restrictions. As Newby (2014) puts it, qualitative enquiry involves feelings, thoughts, opinions and experiences being recorded and analysed to describe a specific phenomenon. This view is echoed by Merriam (1998:23), who states that qualitative researchers should focus

on how people interpret experiences. These statements are true for my study, because I was interested in the opinions, thoughts and experiences of Grade R teachers on their understanding of PE, and wanted to gain insight into the implementation of PE in their classrooms. This method of enquiry helped me gain a deeper perception and understanding of PE in Grade R.

3.2.3 MULTIPLE CASE STUDY

Creswell (2013) states that a case study is an in-depth exploration of a bounded system, for example an activity, event, or process based on extensive data collection. On the other hand, McMillan and Schumacher (2006), suggest that the essence of a case study is that it concentrates on the in-depth understanding of the issue or theme. Yin (2015:13) maintains that a case study is an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and the context are not clearly evident. According to him, the case study research strategy comprises an all-encompassing method. It covers logic of design, data collection techniques and specific approaches to data analysis. As such, a case study is neither a data collection tactic nor a mere design feature, instead it is a comprehensive research strategy (Yin, 2003:14).

Seobi (2013) postulates that the purpose of a case study is to understand the case within its environment and to acknowledge its intricacies. In other words, it is used to gain an in-depth understanding of the situation and meaning for those involved. It is a way of conducting a qualitative inquiry. Merriam (1998:8) points out that the case study's unique strength is to deal with a full variety of evidence. The case study approach is recognised by researchers as an effective design because it focuses on experiential knowledge and the social context of study requires an interpretative perspective because it aims to derive a holistic understanding of how the participant will relate and interact, giving meaning to a phenomenon.

Case studies may be multiple in nature and are then called collective case studies (Stake, 1995). Here multiple cases are described and compared to provide insight into an issue. I used a multiple case study design for this particular research project to gain an in-depth view of teachers' understanding and implementation of PE. Six teachers were selected to be interviewed. This assisted me in gaining a holistic

understanding of the teachers participating in the study. In Table 3.1 I present the reasons for selecting multiple cases as given by Rule and John (2011:21).

Table 3.1: Reasons for selecting multiple case studies

Reasons for selecting multiple cases	Application of reasons
A small range of cases represents the class of cases better.	Six teachers were selected to represent the cases for my study.
Multiple case studies allow for comparison across the cases.	I was able to compare the differences and similarities across the six cases.
They allow for some breadth as well as depth of focus and they can accommodate methodological replication.	The cases provided a focus on the teachers understanding of PE. It gave me a broader perspective of teachers' implementation strategies.
Multiple cases are amendable to study within a common theoretical framework.	All the cases chosen for this study were based on a common theoretical framework.

I made use of multiple cases to gain a deeper insight into teachers' understanding and implementation of PE in Grade R. The case study method is descriptive and utilises one or two instances. For the purposes of this study these instances where the understanding teachers have of PE and how they are implementing PE in the classroom.

3.3 RESEARCH METHODS

In the section to follow, the role of the researcher, methods of sampling, data collection and the process of data analysis will be explained.

3.3.1 PARTICIPANTS AND RESEARCH SITES

The quality of research stands or falls not only on the appropriateness of methodology and conducting it carefully but also on the suitability of the sampling strategy adopted (Cohen, Mannion & Morrison, 2007). For this reason, I selected the research site and the participants for this study using purposeful sampling.

3.3.1.1 Selection of research sites

A study's research criteria should decide the selection of suitable sites for conducting the project. In other words, the site should be chosen carefully and with accuracy to ensure that the perspectives required can be examined there (McMillian & Schumacher, 2014:350). I chose three schools in the district of Tshwane as my research sites. Each school had a diverse staff as well as student base. This ensured that a range of viewpoints were recorded. The following criteria were used to select the schools:

- All schools had to English medium schools in Pretoria, Gauteng
- All schools had to be in the Tshwane South District.
- The schools had to be public schools.
- The schools had to have a Grade R class.
- CAPS had to be implemented in the school.
- All schools had to comprise of diverse learners.

3.3.2.2 The selection of participants

Creswell (2013) explains that purposeful sampling calls for the intentional selection of individuals and sites well suited to learn or understand the central phenomenon. Rule and Vaughn (2011) agree with Creswell (2013) by saying that the researcher has to choose people who are able to shed the most light or a different light on what is being examined. In purposeful sampling the researcher handpicks the participants to be included in the sample based on their typicality as Grade R teachers who are knowledgeable or have insight on the advantages of teaching PE at this level and the challenges of doing so. The criteria for selecting the participants for this study included their qualifications and years of experience teaching grade R. In this way a sample was selected that was satisfactory for the researcher's specific needs (Cohen, Mannion & Morrison, 2007). Leedy and Ormond (2014) emphasise that the identification of a research sample is dependent on the research. Creswell (2013) agrees and maintains that sampling should be directly related to the research question, methodology and purpose of the study. I considered these aspects when choosing the participants for this research project. The participants included six teachers, who taught Grade R and were familiar with and implementing CAPS in their

classrooms. The teachers had to be English-speaking and have a Grade R teaching qualification.

With regards to the criteria I applied in selecting the schools and teacher participants, I selected six teachers, based on their willingness to participate, as well as the following criteria:

- English-speaking
- Qualified Grade R teacher
- Implementation of CAPS
- Minimum of three years experience in teaching Grade R.

The cases, schools and participants I selected are summarised in Table 3.2

Table 3.2 : Summary of cases and participants

Case	School	Grade R classrooms	Teachers
1	A	2	P1 & P2
2	B	2	P3 & P4
3	C	2	P5 & P6
N	**(3)**	**(6)**	**(6)**

3.4 DATA COLLECTION

As Maree (2012:88) asserts, data can be defined as bits and pieces of information found in the environment. The first step in collecting data is gaining access to the research sites (Maree, 2012:88). For the purposes of my study I used qualitative data collection methods such as observation, semi-structured interviews and document analysis. According to Creswell (2005) qualitative data collection involves collecting data using forms with general, emerging questions to permit the participant to generate responses; gathering word or image data; and collecting information from a small number of individuals or sites. In this study, I followed a naturalistic enquiry

where the emphasis was on specific contact with Grade R teachers (Somekh & Lewin, 2005). I conducted personal interviews with the teachers to gain a holistic view of their understanding and implementation of PE. The interviews at two schools were conducted in pairs. At one school the interviews were conducted individually. The data collection method used in the study will be discussed in the subsequent sections.

3.4.1 DIRECT (NON-PARTICIPANT) OBSERVATION

Observation is the process of gathering open-ended, first-hand information by observing people and places at the chosen research site (Creswell, 2013). Creswell (2013) also points out that the advantages of such observations include the opportunity to record information as it occurs in a setting; to study actual behaviour; and to study individuals that may have difficulty verbalizing their ideas. The disadvantages are that the researcher is limited to specific sites and situations where he/she is granted access (Creswell, 2013). Maree (2012) adds that observation is a systematic process of collecting data that relies on the researcher's ability to gather data through their senses, without questioning or communicating with participants. In a qualitative approach the observations are unstructured.

For the purposes of my study, I observed the participants while they were presenting a PE lesson. I acted as a nonparticipant observer in that I visited the site and recorded notes without becoming involved in the activities being conducted by the participants (Creswell, 2010). I used an observation checklist (see Addendum E) to guide the observation process. A possible disadvantage is that the observations I made might have been more concrete had I been a participant observer. However, for the purposes of this study it was deemed sufficient to take on the role of a nonparticipant observer. I utilised an observation checklist while viewing how each participant conducted the PE lesson. I also took additional field notes on what I observed during the presentation of the lesson.

3.4.2 SEMI-STRUCTURED INTERVIEWS

According to Dicicco-Bloom and Crabtree (2006:315) semi-structured interviews are generally organised around a set of predetermined, open-ended questions, with other questions emerging from the dialogue between interviewer and interviewees.

Furthermore, they posit that semi-structured, in-depth interviews are the most widely used interviewing format for qualitative research and can be conducted either with an individual or groups.

For the purposes of this study I used semi-structured interviews to gain a better understanding of how my participants perceive and implement PE. I conducted the semi-structured interviews in pairs at two of the schools; at one school, individual interviews were conducted. The use of open-ended questions assisted me in gaining participants' personal opinions and thoughts as well as guiding and focusing the direction of the interview and ensuring the safety and dignity of the participants. I provided the participants with feedback on the relevant interview because this helped to verify that the data I collected was correct and true.

I used an interview guide (see Addendum F) during the interviewing process. Welman and Kruger (2003:161) indicate that an interview guide should be used in semi-structured interviews and that there should be a list of topics that have a bearing on the given theme. Twenty-one questions were asked during the interviews. Welman and Kruger (2003) also make the point that although all participants are asked the same questions, the interviewer may adapt the formulation, including the terminology, to fit the background and educational level of respondents. With this in mind I formulated an interview guide comprising open-ended questions, which helped me in conducting the interviews. In this way I had the flexibility to adapt and expand the interview as the need arose.

During the interviews, data was documented by means of an audio device and was transcribed later to glean as much information from them as possible and to identify any common themes that arose. Permission to record the interviews was obtained from each participant prior to the interviews.

3.4.3 DOCUMENT ANALYSIS

According to Creswell (2013) document analysis is a valuable technique to use in qualitative research. Documents about a site or participants in the study may comprise public and/or private records. These sources provide valuable information in helping researchers understand central phenomena in qualitative studies.

For the purposes of this study I utilised the National Curriculum Statement (CAPS) as my point of departure. The CAPS provided me with the background information on policy and curriculum requirements for PE in Grade R. Gaining comprehensive knowledge from this document enabled me to pose questions to my participants regarding the expectations of the curriculum on the implementation of PE in Grade R.

I analysed the Grade R teachers' weekly preparation sheets to determine whether these teachers are indeed planning PE activities in accordance with the CAPS requirements. I also ascertained the approaches they are using to implement the PE programme and compared it to the requirements laid down in the current curriculum. I used a copy of the lesson I had observed; this helped me to assess whether the lesson was indeed implemented as planned. My findings were then discussed with the participants during the semi-structured interviews.

3.4.4 RESEARCH JOURNAL

I used my research journal to collect field notes. These included important information on what I observed; thoughts that came to mind during the data collection process and any other information I thought was relevant at the time. These field notes later assisted me in forming links between the data collected and the literature I studied. I used the guidelines set out by Gambold (2010) to aid me in the process of recording field notes.

3.5 DATA ANALYSIS

Qualitative data analysis, according to Nieuwenhuis (2007) is usually based on an interpretative philosophy aimed at examining the meaningful and symbolic content of qualitative data. By means of data analysis the researcher tries to analyse the participants' perceptions, attitudes, knowledge and experiences, in an attempt to approximate their construction of the particular issue/s under consideration. Robert-Holmes states that data analysis is merely reducing your data and then displaying it (2005: 180). Ary, Jacobs, and Razavieh, (2006) asserts that qualitative data analysis involves attempts to comprehend the phenomenon under study, synthesise information and explain relationships, theorise about how and why the relationships appear as they do, and reconnect the new knowledge with what is already known. Merriam (1998:178) defines data analysis as the process of making sense out of the

data and suggests that this involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read – it is the process of making meaning. Stake (1995:71), on the other hand, defines analysis as a matter of giving meaning to first impressions as well as to final compilations. In a Stakian view, analysis essentially means taking our impressions, our observations apart.

A thematic, inductive data analysis approach was used in this study. I searched for themes and constructed theories from empirical data to make meaning of the data collected (Somekh & Lewin, 2005). The themes were tabulated for easier understanding and analysing. Conducting informal interviews is one of the data collection methods favoured in interpretive studies, allowing the researcher to collect the data in a natural (school) situation (Burton & Bartlett, 2009).

In qualitative studies researchers often find it advisable and necessary to go back to the original field notes and verify conclusions, or to re-visit the participants to collect additional information. The model (see Figure 3.1), developed by Siedel (1998), explains the interactive process of qualitative data analysis.

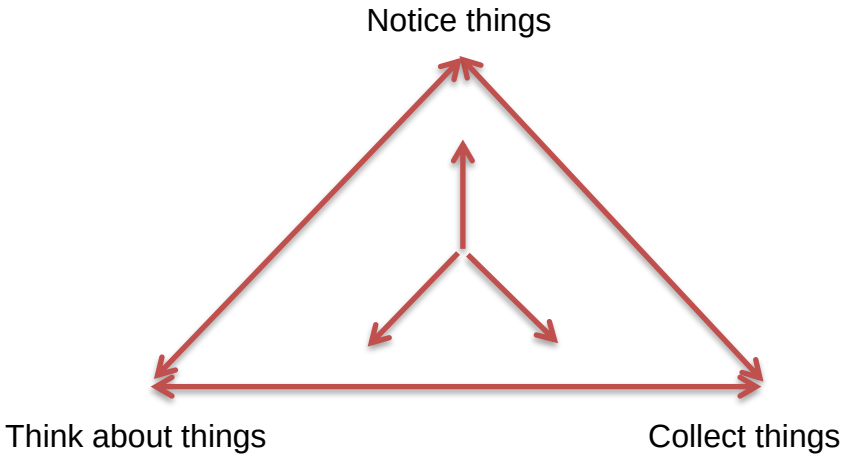

Figure 3.1: Siedel's model of the process of qualitative data analysis

Siedel's (1998) model consists of three aspects, namely, noticing, collecting and reflecting. All these elements are interlinked and cyclical (Maree, 2007:100). This implies that while reflecting, certain gaps in data are noticed and the researcher then goes back to collect additional data. After collecting the data from each school, I reflected upon it and revisited the school to collect additional data that I felt was necessary to fill the gaps I had noticed during the reflection process. As a common

trend in qualitative tradition, he suggests that researchers should conduct data collection and analysis processes simultaneously. Hence, there is no exact point in the research process to begin analysis because there is no exact point to begin data collection. Hardon,Hodgkin & Fresle(2006) agree with Maree by stating that data analysis involves '*expanding notes from interviews and/or transcribing tapes, and then ordering, describing, summarizing, and interpreting data obtained for each study unit or for each group of study units*.' This required the researcher to '*analyse the data while collecting it*'. Therefore questions that remained unanswered (or new questions that come up) were addressed before data collection was over. The model (see Figure 3.1) works well as a tool for data analysis and interpretation in my research project. The application thereof is discussed in the next paragraph.

Raw data was collected by means of observations, semi-structured interviews, field notes that I made during my observations, reviewing of documentation like preparation sheets and lesson plans and my research journal. The interviews were recorded on a Dictaphone, mobile device and iPad to ensure that no data was lost. I reflected upon the data once it was collected from each school and revisited the schools again to fill in the gaps I had identified upon reflection. Once all the raw data was gathered, I organised the data and prepared to begin the process of data analysis. I began by transcribing the interviews I had recorded. I first listened to each interview and made notes while listening. I then listened to them for a second time, transcribing them as I went along. The interviews were listened to for a third time to ensure that I had not omitted any information. I scanned all the documents I had gathered and typed out the field notes that I had made. Once this was done I catalogued the photographs I had taken of the various lessons. I sorted and arranged all the raw data into different types, in order to begin analysing each type. I then read through all the data to gain a general sense of the information I had collected and reflect on the overall meaning of the data collected. I once again applied Siedel's model and reflected on the process of data collection and the data I had collected. I was satisfied that I had filled all the gaps that were found during the first process of reflection and thus I did not need to visit the schools for a third time. I then saved the interviews on my computer and made a backup flash drive. This ensured that I did not lose any information. The interviews were then printed, so I could begin analysing and coding the data collected. Creswell (2005:251) describes coding as looking for different themes or categories that arise from the data collected. Coding involves

placing labels or tags onto chunks of the data that has been collected in order to generate a number of themes (Robert –Holmes, 2005). I did not use any programme to assist me in the coding of my data. Instead, I scrutinised the data very closely and made links to the literature in Chapter 2. I generated descriptions of the people, places and events in each school setting. I then analysed the data by making notes from interviews and audio tapes and creating files on my computer, all of which assisted me in coding the data correctly. I made notes in the margins when coding and categorised the data, establishing commonalities. Once this was complete, I began interpreting the meaning of the themes I had identified. I was only then that I could begin reporting the findings in narrative form.

3.6 TRUSTWORTHINESS

Maree (2012:140) defines trustworthiness as the way in which data are collected, sorted and classified, especially if they are verbal and textual. Lincoln and Guba (1994) posit that the trustworthiness of a research study is important in evaluating its worth and consists of establishing the credibility, dependability, transferability and confirmability of the study.

3.6.1 CREDIBILITY

Credibility, or the truth value of data, refers to factors such as the significance of results (Maree, 2012). The credibility criteria involve establishing that the results of qualitative research are believable from the perspective of the participants in the research, therefore the participants are the only ones who can legitimately judge the credibility of results (Lincoln & Guba,1994). I held in-depth, lengthy discussions with the participants to build a relationship of trust and understanding with them.

3.6.2 DEPENDABILITY

Dependability refers to the stability and consistency of the research process and methods over time (Maree, 2012:140). According to Shenton (2004:71) Lincoln and Guba (1994) stress the close ties between credibility and dependability, arguing that in practice, a demonstration of the former goes some distance to ensuring that the research is dependable. For this to be so, the text will have sections on research design and implementation; data gathering strategies; and evaluation of the process

of inquiry. As the researcher I was responsible for discussing the changes that occurred in the setting and how these changes affected the way I approached the study.

3.6.3 TRANSFERABILITY

Transferability can be defined as the degree to which the qualitative research findings can be transferred to other contexts (Akinyoade, 2012). The use of in-depth description is recommended by Teddlie and Tashakkori (2009:286), to enhance transferability. In-depth description, according to Lincoln and Guba (1994), is a way of achieving a type of external validity. The in-depth description of the research context, research process and its assumptions, provides the relevant information to analyse whether the findings are indeed transferable.

3.6.4 CONFIRMABILITY

Confirmability is the degree to which the results can be confirmed or corroborated by others (Lincoln & Guba, cited in Trochim, 2006). Miles and Huberman (1994) consider that a key criterion for confirmability is the extent to which the researcher admits his or her own predispositions. I enhanced the confirmability of my study by documenting procedures for checking and rechecking data throughout the study.

3.7 ETHICAL CONSIDERATIONS

This research project was conducted in accordance with the terms and conditions of the ethical regulations as stipulated by the Faculty of Education of the University of Pretoria. The following ethical considerations cited by McMillan and Schumacher (2014) and Ferreira (2014), were also taken into consideration in this study:

- The researcher carries the responsibility for adherence of ethical standards;
- The researcher should at all times be open and honest with regard to sharing the purpose of the research with the participants;
- Informed consent: Before the research project begins, participants should be fully informed of aspects of the research that might help them to decide if they are willing to take part in the study or not;
- Participants must be ensured of confidentiality.

Similarly, the ethical principles as proposed by Burton and Bartlett (2009), were strictly followed. These include informed consent; confidentiality and privacy; honesty and openness; access to findings; and avoiding harm (Burton & Bartlett, 2009). All participants were treated with the utmost respect and according to these ethical principles.

Informed consent (see Addendum A and B) was received from every participant in this research study. Consent was obtained in the form of a letter to the principal of the participating primary schools, as well as to the Grade R teachers. As the researcher, I explained to all participants that their anonymity was ensured and I applied this strictly throughout the research process. All participants were informed that the study would be accessible to them (Burton & Bartlett, 2009). The semi-structured interviews were audio-recorded with the consent of the participants. The semi-structured interviews were held in a venue familiar to the participants. Interviews were kept informal, and a relaxing and conducive environment was created so that participants could feel at ease. All participants were fully aware that they could withdraw from the interview process at any time.

Privacy and confidentiality of the participants was guaranteed. It was stated by the researcher that their identities would not be revealed when reporting on the study to ensure the privacy and confidentiality. Participants' names were not used and the name of the schools were not revealed. The principals were informed in advance that they would not be informed about the revelations of the educators at the interviews. The recordings, transcripts and field notes were stored in a safe place to protect the identity and views of participants.

All participants were granted the opportunity to read the research report and give their feedback. This formed part of the validation process of this research. Valuable feedback on the findings was gathered from participants. The schools involved in this research project indicated that they were keen to receive the findings of this study because they realised it could improve the implementation practices of PE in Grade R. It is hoped that the study will provide guidelines for the schools to support their teachers in the implementation of PE practices.

3.8 CONCLUSION

In this chapter I provided a detailed explanation of the research methodology used to explore teachers' understanding and implementation of PE in Grade R. I justified my selection of the qualitative interpretative and multiple case study research design used. The methods followed in this research project to collect, document, analyse and interpret the data were explained on the basis of the relevant literature. I concluded the chapter by explaining the measures employed in ensuring rigorous and ethically sound research. In the next chapter I present and report on the results of the study.

Chapter 4
Data Analysis and Results

4.1 INTRODUCTION

In the previous chapter, the research methodology that was followed to gather the information for this study was explained. Chapter 4 discusses the analysis and interpretation of the data. The research and gathering of information extended over a month. The participation of the Grade R teachers was an integral part of this study and provided assistance in answering the research questions that underpin this study. My observation of their lessons as well as the analysis of their lesson plans and preparation added depth and richness to my study.

The main aim of this study was to address the research questions and sub-question (see section 1.3) as thoroughly and fairly as possible. The main research question that underpinned this study was How do Grade R teachers understand and implement PE according to the Curriculum and Assessment Policy Statement? The sub-questions that followed were:

- What are the theoretical insights regarding the importance of PE for Grade R children's development?
- What are teachers' perceptions on PE in Grade R?
- What guidelines can be formulated to support teachers' implementation of PE in Grade R?

4.2 INFORMATION OF PARTICIPANTS AND GROUPS

4.2.1 PARTICIPANT INFORMATION

Chapter 3 (see section 3.3) provided general information on the participants. For the sake of anonymity, participants are referred to as P1, P2, P3, P4, P5 and P6. I conducted semi-structured interviews in pairs at two schools and at one school individual interviews were conducted. All the participants were Grade R teachers who are teaching in government schools. Table 4.1 provides the profiles of the six

participants involved in the study. Each teacher was a Grade R teacher at a government school within the Tshwane South district.

Table 4.1: Information of participants in this study

Participant	Gender	Experience	Grades taught
P1	Female	23 years	Grade 4 and Grade R
P2	Female	6 years	Grade 1 and Grade R
P3	Female	3 years	Grade R
P4	Female	3 years	Grade R
P5	Female	3 years	Grade R
P6	Female	30 years	Grade RR to Grade 7

These six teachers are all currently teaching Grade R at different public government schools in the Tshwane South district. Each school was a primary school with Grade R classes as a part of its teaching programme. Each teacher interviewed had a tertiary qualification and more than three years of experience teaching Grade R. They are all implementing CAPS, although I was only able to gauge how familiar they were with the curriculum once I had conducted my interviews. I conducted semi-structured interviews, two were done in pairs and two interviews were held individually.

4.2.2 SCHOOL INFORMATION

This section provides a brief description of the participants in the school setting. I also give an indication of the level of interest the teachers showed with regard to the topic and some information on the research site.

4.2.2.1 School 1

The teachers at this research site varied in age. The one teacher, who is also the HOD of the pre-school is in her late fifties, while the other teacher is in her thirties. Both teachers are females. They seemed very interested in my research topic and the older teacher was keen to share information and answer questions. The younger teacher seemed somewhat apprehensive but settled down soon after the questioning

process had begun. She did however seek approval from P1, when asked certain questions. Overall, these two teachers showed a positive attitude towards participation in the study and shared unique insight on their understanding and implementation of PE in Grade R.

4.2.2.2 School 2

The teachers at this research site were unfortunately not on good terms and requested to be interviewed separately.

P3, a young, female teacher, was not enthusiastic about participating in the study. She unfortunately did not have a lesson plan or a lesson for me to view and was not flexible at all in terms of accommodating me. She came across as rather evasive and seemed more interested in other issues in her classroom. I did manage to get her to answer some of the questions I had prepared and she was knowledgeable in some areas. However, I am not too sure what the practical implementation of her knowledge would be. From her description of her lesson, I gathered that it was not as in-depth as the other PE lessons I have viewed, nor was it well planned and thought through. She had a small area in her classroom that she said she used for PE lessons. I did not see how the children in her class could benefit from the exercises done in such a small space.

P4 was also a young female. She has recently completed her Master's Degree in Education. She was very enthusiastic and answered the questions posed to her willingly. Her knowledge of the curriculum was good and her lesson was one of the best I observed in this project. She shared a great deal of practical knowledge with me and was very interested in my research topic.

4.2.2.3 School 3

The teachers at this research site also varied in age. P5 was an older teacher, who was Afrikaans speaking and relied a great deal on P6 to explain terminology and help her translate certain words or phrases during the questioning process. They seemed very interested in my research topic and tried their best to answer all the questions posed to them. It was interesting to note the different teaching styles between the two teachers. Their background and history of training has definitely had an impact on the

way they present their lessons, as well as the level of understanding of CAPS and the place PE has in the curriculum. Overall, this pair showed a keen interest in the implications of the research topic

4.3 ANALYSIS OF DATA

The aim of data analysis is to transform information or data into an answer to the original research question. According to Ary *et al*., (2006) cited in 3.5 qualitative data analysis involves attempts to comprehend the phenomenon under study, synthesise information and explain relationships, theorise about how and why the relationships appear as they do, and reconnect the new knowledge with what is already known. The analysis process involved interpreting the participants' responses to the interview questions using the inductive approach. I also utilised the model developed by Siedel (1998), which explains the interactive process of qualitative data analysis, to assist me in analysing my data. The Siedel model is based on three aspects, namely noticing things, collecting things and thinking about things. These three components are interlinked and cyclical. This model provides room for the researcher to reflect on the data collected, identify gaps and go back to collect additional data if necessary. A thematic inductive data analysis approach was utilised in this study (see section 3.4.3)

I utilised a semi-structured interview schedule with open-ended questions (compiled beforehand) to guide my discussions with the participants and gain the data needed for this study (see Addendum F). I asked questions on the teachers' understanding of PE, as well as CAPS. I also focused on lesson implementation and the importance of PE. I recorded these interviews on a Dictaphone as well as on my iPad and cellular telephone as backups. I then began the process of data analysis.

According to Thomas (2003), analysis of data is intended to aid in an understanding of meaning in complex data through the development of summary themes or categories from the raw data ('data reduction'). Categories were developed from the raw data that captures key themes that the researcher considered to be important. The interview data was transcribed and coded by grouping the responses of the participants into common themes or similar Analysing and coding the data took a fair amount of time and patience. I used different coloured markers to group together similar ideas and topics. Notes were made on issues, ideas and themes that arose. I

had to read through the transcriptions many times to gain a comprehensive, in-depth idea of the data. Coding was done by highlighting words and phrases with colours (see 3.4.3).

Once the themes and subthemes were identified, I began summarising the data accordingly. The themes that emerged are discussed in Chapter 4 (see 4.8) and are linked to the body of literature explored in Chapter 2.

4.4 RESEARCH FINDINGS

In the section that follows, the semi-structured interviews were analysed according to the questions from the interview schedule.

4.4.1 QUESTION 1

What is your understanding of PE?

Various understandings of the subject PE emerged when the participants were asked this question. The teachers seemingly had a vague idea of the term PE. They could not provide an in-depth answer on what exactly PE is. Although the holistic development of children is important in terms of their development, literature states that there is a link between the physical and intellectual domains of a child, the participants in this study did not provide responses that highlighted their knowledge of holism and its link to a child's development. P1 did not refer directly to the question when she answered: *It is one of the main things I usually speak about to parents.* She went on to say: *Fine motor skills cannot be developed before the gross motor skills are in place.* P2 and P5 agreed with her by saying that *gross motor development is needed to develop the fine motor skills and it is very important for the child's overall development*. P3, 4 and 6 had very vague ideas, with P6 saying that *PE is allowing the child to move*. In general, the participants did not have a good understanding of PE and each participant's understanding of PE was different.

4.4.2 QUESTION 2

Please explain your understanding of the requirements set out in CAPS with regard to PE.

The teachers seemingly did not have much background knowledge on the actual hours set aside for PE in CAPS. I noticed that the participants were aware of the

assessment standards that must be met by each child but were unsure about how many hours of PE has to be done per week. In this regard P2 stated that she *refers to the assessment guidelines from CAPS and plans her lessons from there*. P3 and P4 agreed but said that she has an idea of what the children are supposed to do and works out her own time allocation per week for PE. P5 and P6 stated that *their lessons were planned for the year by the Head of Department and all they did was follow the lesson plans provided.*

4.4.3 QUESTION 3

What is your understanding of the terminology on perceptual skills; tactile development; vestibular development; gross motor skills and kinaesthetic development, as used in CAPS?

This was a lengthy question. Each term was discussed separately to determine each teacher's understanding of the terminology. Four of the participants were unfamiliar with the terms. P1 reported: *It is visual and sensory, you need to have the whole body of the child, like I said midline and vestibular.* She further commented: *If those skills are not there then the child won't be able to do maths.* The participant's ignorance on this matter was further demonstrated by P3 who stated: *Vestibular? I don't think we have enough stuff to do vestibular and I must tell you when I stared working here I never had training in vestibular.* P5 went on to say: *They never mentioned it when I was studying but I know it's like going on the swing and turning it and turning it back and I know it's about the hair in your ears.* P2 agreed with this statement by *saying that she has never come across this word before.*

4.4.4 QUESTION 4

Is the information provided in CAPS adequate enough for you to plan and execute a PE lesson? Please explain why or why not

Most of the participants felt that there was very little information given to them in CAPS with regard to lesson plans and what is expected of them when they are planning and implementing a PE lesson.

In this regard, P3 noted: *No, especially for people unlike me. For instance, with a cartwheel, I can do a cartwheel so I can tell them what I want them to do and I can show it to them but my colleague can't do a cartwheel, so how must she teach them*

if I'm not there? She cannot call me and say come and you do it for my class and show them how to do it? P3 went on to state that *The CAPS is there and they put out all those outcomes, all of them are there, but there are sometimes no explanations.* P1 and P2 agreed by saying *that the information given is CAPS is not enough to assist them in panning their lessons.*

P4 indicated that she felt structure and examples of lesson plans should be given in the CAPS. She explained: *When I took out my CAPS document today for interest sake, just to see the outcomes and stuff … and to me it was okay. But there's no lesson plan in CAPS. I was actually looking for the structure that they want me to use and that's what I found they didn't have.* P6 said: *At least they have got the outcomes from Grade R to 3 and what they expect, but they don't really give you examples or that type of thing.* P5 agreed by stating *that even though the outcomes are provide, no guidelines are provided.*

4.4.5 QUESTION 5

Do you feel that it is necessary to utilise other materials as a means of referencing, when planning a PE lesson?

All the participants said that it was necessary to consult other materials in planning a PE lesson. They referred to the internet; books on movement; and ideas from students who come to teach at the school as possible reference materials.

In P2's opinion: *We get many students who come for their practical work here, I always get ideas from them so it's from TUKS, North West, many of the UNISA students and a few of the private institutions. I look at their planning.* She went on to add that she was involved in training: *I was involved in training many years ago for people in disadvantaged areas. I actually taught them how to make their own equipment. With UNISA when you are studying, you have to make all your own equipment as well, so we have all that stuff.* P3 also stated that *she has gotten ideas from her Occupational Therapist friends and colleagues.*P1 stated that *she utilised additional books now and again, but relied on her many years of experience when planning a lesson.*

Along the same lines of thinking, P5 noted: *Of course, I have got Occupational Therapists as friends, so it helps me a lot. We usually sit together and do the*

planning, so I do not only do what CAPS tells me. I do a bit more and incorporate those OT lessons in the class because that's what we need to do, we need to get them ready for Grade 1.

P4 mentioned that she is a very sporty person: *I like sports, exercise is good, and I like playing with the children. I like playing games with them. Most of the time I come up with my own things and I reflect on the things that I've seen from other people.* P6 agreed by saying: *I like following people on Facebook and I subscribe to newsletters where they send you different exercises. I get a lot of things from there … I like YouTube as well.*

4.4.6 QUESTION 6

What kind of training have you received with regard to CAPS and specifically PE?

The teachers all stated that they had no particular training on PE and how to implement it in Grade R. Nor did they have intensive CAPS training on how to plan PE lessons.

In P2's words: *[We had] the initial introduction of CAPS and we also attend workshops and things where they work on specific activities but we have not had movement or PE [training].* P5 agreed: *When I started studying we were busy with the NCS but only somewhere in my second year and then they changed to CAPS, so they trained us very well in that but nothing specific to PE.* P3 had some training while she was in University, although she stated that it was not sufficient.

Along the same lines P1 noted; *I haven't done any training we've done a lot of courses where they mentioned CAPS and how it works but not a specific CAPS training in PE.* P6 agreed saying that *she had only been on short courses that were not practical.* P4 and P6 said that they *had a CAPS training session one Saturday and they were provided with a few lesson plans.*

4.4.7 QUESTION 7

How would you use PE as part of an integrated approach to teaching?

The teachers had some ideas on how PE could be integrated into the curriculum. However, they only focused on the mathematics learning area. According to P1,

one's body can be used to teach shapes. She stated: *Using your hands to show the shapes, using your hands for numbers, clapping … there are so many things.* P3 elaborated: *Okay that will be easy, I'll use the hoops and you can put numbers because number awareness is very important. We only do 1 to number 5 in the first term so you can put 1 to 5 in there and you can say okay go get 5 sticks and put it on number 5 or you can say jump the right amount.* She added that games like ten pin bowling can be played: *Ten pin bowling … we do that where we put the ten pin bowling out then you can even let them crawl sideways, then throw the ball. How many ten pin bowls were knocked down, how many are still standing?* P5 had a very hands-on approach and clearly tries to make PE lessons enjoyable: *I take them outside a lot and use chairs for special awareness* She also made use of a great deal of interaction. *I say: 'two people sit – one person must stand on the chair, now continue making the pattern.P4 and P6 both stated that they did not integrate PE into their lessons.*\

4.4.8 QUESTION 8

Could you please explain briefly how you plan a PE lesson for your class?

The teachers provided minimal information on planning of lessons. P4 indicated that viewing the outcomes was important. She explained: *I normally look at all the outcomes that I need because that's more important.* She added that she extends the learners if they have achieved an outcome: *I work out of the CAPS and I see okay they can do this, the milestones have been reached, then I go further and add an aid; bring an OT in; bring the yoga in and make it fun.* P5 agreed with her by stating that she plans her lessons from looking at the outcomes and extends the learners if necessary. P6 added that the outcomes were just a guideline for her and that she always extended the learners if they achieved the outcomes.

P2's planning process was different from P4's and she explained that she planned lessons for the year and the H.O.D approved them. She noted: *I worked out the lessons and I gave them to my H.O.D, so she could correct it if she was not happy with what I gave to her. If there's something that's repeated, she'll put in something more interesting. P1 did not plan her lessons, she utilised the lessons provided by P2*

and consulted books to add additional activities or vary the activities that had been provided.

4.4.9 QUESTION 9

How often do you plan PE lessons, and what is the duration of each lesson?

The teachers were very vague when answering this question. They seemed to have no prior knowledge of the time allocated to PE according to CAPS. P6's negative feelings on the topic are expressed in in the following extract from the data. *They give us a time but it's very difficult if they say 4 minutes for literacy and 3 minutes for maths per day. The time frame is too specific I feel because when you work with little ones you also feel your way with the lesson.* P5 added that the time frame is unrealistic, especially if you are doing the lesson with younger children and children that do not understand English properly. P4 also just fitted in her PE into her day and agreed with P5 by saying the time allocated was not sufficient and that on some days, Maths and Literacy too much longer, therefore PE could not be done.

P2 worked out the time on her own and explains: *I worked out the times to at least twice a week for 30 minutes.* P1 and P2 had no idea of the times and merely put out equipment for the children to explore during free play. In this regard P1 elaborated: *We put the stuff outside and the kids have free access to it … and twice a week we take the bikes out and twice a week every Wednesday and Friday, we do the obstacle course.*

4.4.10 QUESTION 10

What kind of equipment or resources are made available to you by the school for planning and implementing the lessons effectively?

Participants from all the schools agreed that they had access to sufficient equipment. In P3's opinion: *[We have] a lot. Everything we need, and if we don't have it then we will buy it.* P4 agreed: *We have a lot, it's here in the storeroom so we can go and take it out whenever we need it.* P1 shared the same sentiments: *I can honestly say I think that we have everything on the market, we are very well equipped, and we buy everything. P5 and P6 agreed by stating that their school was well equipped, although they shared resources with the Foundation Phase.* During my onsite

observation. I also took note of the variety of equipment that the teachers utilised. Accordingly, I reflected in my journal: There is a wide variety of equipment available; some of the equipment is brand new (March 2016).

4.4.11 QUESTION 11

Where do you set up your PE lesson? Please explain your answer.

The teachers used various areas to conduct their PE lesson. However, there was no designated area for PE lessons. P2 elaborated: *We set out our lessons in different areas, it just depends on what we are doing for the day and who's playing where.* She added that the areas available were dependent on the other classes. In P2's words: *If we go outside and there are too many people playing there we go instead to the field and if the children are on the obstacle course and the grass is free then one can easily set up one's lesson there. It depends on the times in the morning when one comes outside.* P1 and P5 had a similar explanation: *Every day in the morning we line the learners up and go to the field where they play and kick the balls.* They elaborated on the activities they cover on the field: *Hand eye coordination, cricket, bean bag throwing, clap and catch so there they can move freely, wheelbarrow walking for arm strengthening. P4 also utilised the field to do her lessons.* P3 stated that she *used the small space in her classroom, as she did not have time to take the learners outside.*

4.4.12 QUESTION 12

How do you present your PE lesson? Do you use groups or stations or present the lesson to the whole class?

The participants each had their own ideas on presenting PE lessons. They mentioned that factors such as time, availability of space and the type of activity, determined the presentation of the lessons. P2 stated that she did not like using different stations when presenting a lesson. In her words: *Usually I do not use stations, I break up my activity. My assistant will focus on the one and I will focus on the other. I prefer to be at an activity and an assistant at another activity, or if we do the same activity like ball games, she works with half the class and I work with half the class.*

P4 agreed with P2 but added: *It depends on the lesson. Normally in the morning, we will go to the field. I then split the boys and the girls, the girls will sit and play a game with one of the teachers while I work with the boys.* She went on to say that she normally works with the two groups because *I find it very difficult to take real control and watch everyone, so I usually separate the two groups. P1 and P6 utilised stations when doing PE. P1 stated that it was easier for her to assess the learners and control the class. P6 added that the learners listened better and each child had the opportunity to participate in all the stations.*

4.4.13 QUESTION 13

Do you think it is beneficial to repeat the same lesson over several days or even weeks?

The teacher's all agreed that repetition was very important when doing PE activities. P2 said: *Yes but not in the same order and sometimes one repeats it 5-10 times in a year.* P4 added: *Yes, because unfortunately it is often the case that the [learners] can't grasp the concept immediately.* Along similar lines, P3 mentioned: *Not the exact same lesson but the things that you see them struggle with can always be done in different ways. P1 added that she only repeated the activities that she thought the learners had difficultly doing. P5 agreed saying that " I do repeat some activities, especially those that were hard for the learners."*

4.4.14 QUESTION 14

How you do observe children's progress in terms of physical development during the lesson?

The teacher's all used different methods to assess their PE lessons and the various activities they used. In P5's opinion: *I take them individually so I can pick up the problem areas and report on them. I assess the children individually.* P3 and P1 used class lists when observing and then allocated marks for each activity at a later stage. P3 explained this: *I usually use a class list and tick it if the child achieved the outcome. If not, I put a block next to that name and put the mark down later at home. Similarly,* P1 said: *I use a list and then at home, I record this on my computer.* P6 had a completely different system. She explained: *I normally just I have a book or a class list, a class list works awesome. I started gross motor on the class list today because then I can go quickly … every day I work with a group and then just staple the class*

list into my observation book. It is evident that there is no prescribed assessment procedure. P4 and P2 used a checklist and the classroom assistant helped them record what the children were doing in the lesson.

4.4.15 QUESTION 15

Are parents given feedback on progress noted during these lessons? Please share your opinion on the importance of sharing progress reports with parents on children's physical development

The participants all agreed that giving feedback to the parents was an integral part of the child's development. P2 said: *I refer specifically to whatever they need support with, or cannot do. I then mention specific activities and note the progress the following term.* She continued: *The continuous feedback to the parents, for example at our parent evenings, is important.* P3 and P4 have both created a WhatsApp group where they provide the information to the parents. P4 explained this in more detail: *I send out a message on Monday or Tuesday of what we plan to do during the week and later in the week I message the parents of the children who have struggled with the activities, so they can reinforce them at home.* P3 supported this idea by referring to the way she used her WhatsApp group: *I like keeping an open channel with the parents. I provide examples of what we have done in class, so the parents can repeat it with them at home. We also have parent evenings where this is discussed.P1 and P6 said they only provide feedback in the reports and during parent evenings, when the parents come to school.*

4.4.16 QUESTION 16

What, in your opinion, is the value of PE in a child's development?

The teachers all felt that PE has a very important role in the development of a child and helps with writing and reading. According to P2: *We cannot do without it, if it was not in the curriculum I would still do it.* P5 agreed, saying: *Parents do not understand that technology is not good for their children and if I tell them that they have to play outside and do things with their bodies to get used to doing [similar] things in class, they think I am crazy because they do not understand the connection.* She added: *I think it is also important to make parents aware of how the gross motor connects to fine motor and how it affects their child's school work. P3 and P4 agreed, with P4*

adding that parents do not have the time to take their children to the park. P6 added that PE is very important as children do not have safe areas to play like the old days. P1 stated that in all her years of experience, she has noticed that children love to participate in PE and the need for it has grown because all children do these days in play on their phones.

This subsection has covered the information that came to the fore in the interviews I conducted with participants in semi-structured interviews. All the interviews were conducted with permission from the head of the school and the participants themselves. The interviews were recorded with the permission of the participants and then transcribed for the purposes of data analysis.

4.5 NON-PARTICIPATORY OBSERVATION

Non-participatory observation was another method of data-collection utilised in this study. I observed a PE lesson conducted by five of the six participants. I utilised an observation list while doing this (see Addendum E). Each participant's lesson was presented differently. Some participants set out stations, which consisted of a variety of activities, while other participants presented whole-class lessons. As a non-participatory observer, I stood away from the lesson and made the appropriate record on the observation list. I observed the layout of the lesson; the explanation of activities provided to me by the teacher; the variety of activities presented; and the way the activities were presented. I observed the lessons individually. The lesson plans provided by teachers had to include a warming up activity, an explanation of each station or activity presented by the teacher, with drawings of the activity and a cooling down activity. The lesson plan also had to highlight the aim and outcomes of the lesson. I provide an analysis of the main findings of my observations in the section to follow. During the warm-up, the teacher was expected to include an explanation of the activities to be presented as well as a demonstration of the activity. The role of the teacher in these lessons was a facilitator.

4.5.1 ANALYSIS OF MAIN FINDINGS

The teachers in Pair 1 (P1 and P2) were well prepared and presented structured lessons. Each lesson included an introduction (including warm-up), a body, a conclusion (including relaxation) and outcomes. The teachers utilised a variety of

equipment and set out a number of activities in the form of stations. Each station had a specific outcome and focused on a specific skill. The teacher and assistant both had a station that they were assessing. The children responded well to the whistle or shaker; this indicated they had to move to the next station. The teachers explained each station at the beginning of the lesson. The introduction to the lessons was warming-up activities and one of the teachers included stretching as well. Both teachers concluded their lessons with good relaxation techniques. Overall, the lessons were well planned and executed. In Figure 4.1, I provide evidence of P1's layout of her lesson. Photos were taken by me, the researcher. This is followed by a discussion on how P1 implemented PE using a variety of activities.

Figure 4.1: Evidence of two of the four stations in PE lesson by P1

4.5.1.1 Analysis of Figure 4.1

P1 set out four stations for her PE lesson. She utilised a variety of equipment in her lesson and each station focused on a different skill. At station 1, the emphasis was on cross-lateral crawling. The learners began by jumping over the yellow chairs; they then crawled under the table, crossing their midlines. The focus at station 2 was balance. The learners began with balancing a beanbag on their heads and then had to walk to the end of the station. Station 3 focused on jumping skills. The learners had to jump over the hurdles landing on both feet and at the last station; they used

the first ladder to jump between the rungs. They had to jump with their feet together, landing on both feet. They then crawled back using the yellow ladder. Both jumping and crawling were the focus at this station.

P1 began the lesson with a short warm up activity. She then explained each station to the learners before dividing them into groups. P1 engaged with the learners at the various stations and her assistant helped her to ensure that each child completed the activities. She did not have a checklist to make note of the learners who could complete each activity successfully, nor did she note which learners had difficulty with the activities. She ended the lesson with a short cooling down activity. The learners all sat in a circle and did a few breathing exercises.

In Figure 4.2 below, I provide evidence of P2's layout of her lesson. This is followed by a discussion of how P2 implemented her PE lesson by using a variety of different activities.

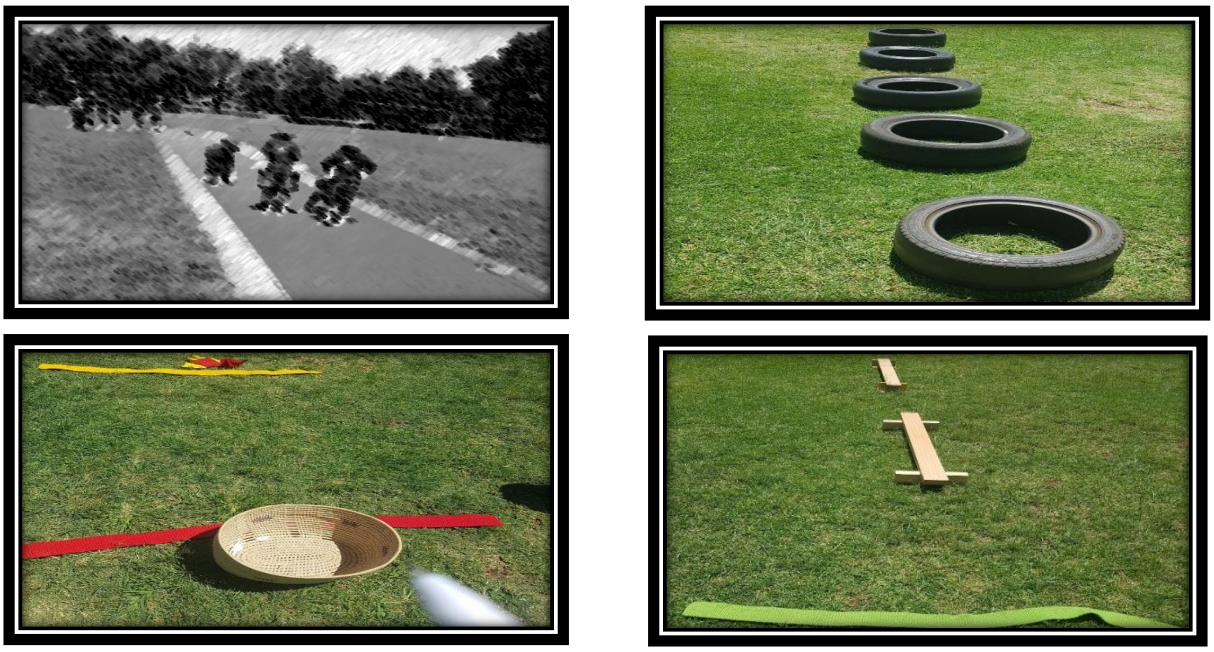

Figure 4.2: Evidence of stations in PE lesson by P2

4.5.1.2 Analysis of Figure 4.2

P2 presented a lesson similar to P1. She also utilised stations in her lesson. She utilised a variety of equipment and each station had a specific focus. Her assistant helped her set up the stations and group the learners. P2 provided clear instructions

to the learners before they began their lesson. Station 1 was wheelbarrow crawls. Here the learners worked in pairs. This activity focused on building core strength as well as strengthening the muscles in the upper body. No equipment was required for this activity. The social domain of learning was evident here, as the learners were required to work in pairs and communicate with their partners, while completing the activity. The activity at station 2 focused on jumping. The learners had to jump in and out of each tyre. The activity at station 3 focused on balance. The learners had to walk across the balance beam, heel-toe with a beanbag on their heads. Station 4 focused on eye-hand coordination and throwing skills. The learners had to throw the beans bags into the basket while standing on the yellow strip. P2 and her assistant rotated among the activities, observing and engaging with the learners. The assistant had a class list and they were making notes of the learners who were struggling with the activities. P2 assisted these learners. The lesson was concluded with a short relaxation activity. Relaxation typically refers to the "cooling down" phase directly after the activity, for example, relaxation exercises such as stretching and breathing are done at the end of the lesson.

In Figure 4.3, I provide evidence of P4's layout of her PE lesson. She created an obstacle course race for the learners, using a variety of equipment.

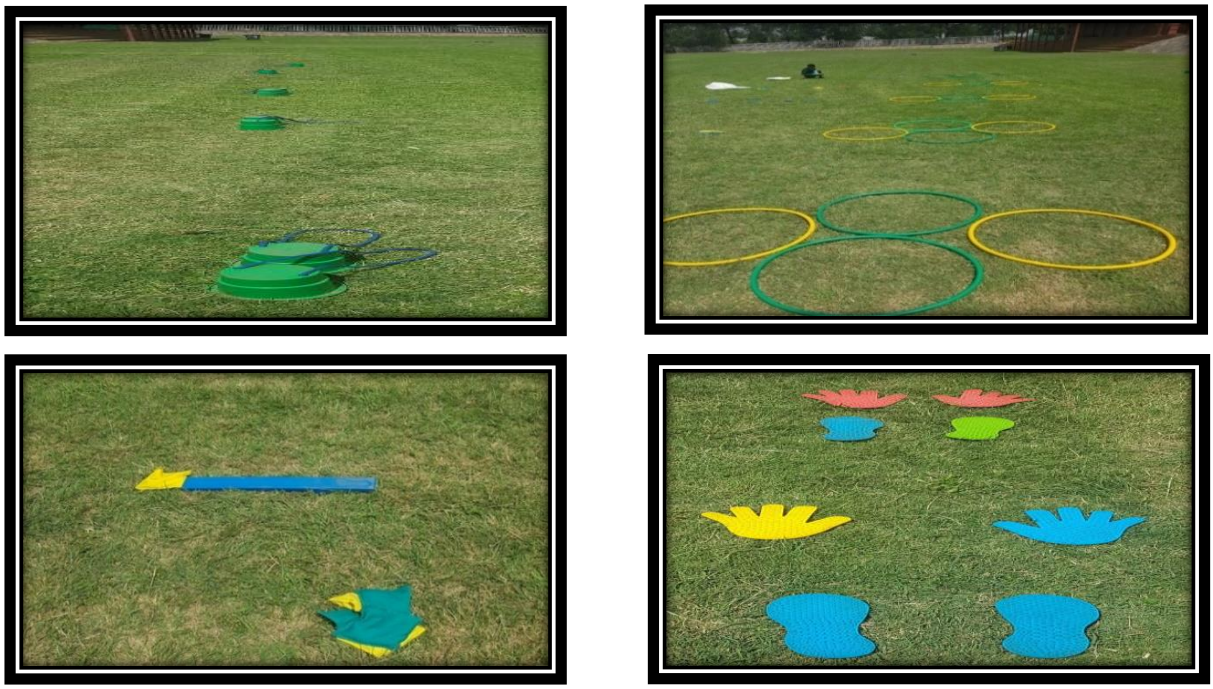

Figure 4.3: Obstacle course race

4.5.1.3 Analysis of Figure 4.3

P4 presented an interesting, well-planned lesson. Her assistant helped her to set out the lesson. It consisted of four activities that each group had to complete. She indicated that it was to be done as a relay race, and only once the first child had returned to the line could the next child proceed. The group that completed the obstacle course first would be allowed to play on the playground for an extra 10 minutes. The activities varied in difficulty and each station focused on a different skill. The learners really enjoyed the lesson and teacher P4 gave individual assistance to the learners who found it difficult to complete a particular activity. The learners began the race by balancing on stilts and walking towards the hula-hoops. For the second part of the race they jumped into the hula hoops, first on one leg, then on two, then on one again.

The third part of the race focused on foot-eye-hand coordination. A catch and flip was used in this activity. A beanbag was placed on one end of the catch and flip and then the child had to step on the opposite end, flipping and catching the beanbag. The last activity was a jumping activity. The learners had to frog jump using the hand-and-foot stencils placed on the grass. P4 and her assistant helped the children who were finding difficulty with the activities. However, no checklist was used to take notes of those learners who were struggling. All the children were engaged and followed the instructions given with ease. P4 ended off her activity with a few stretches.

4.5.1.4 Analysis of P5's lesson [2]

P5 presented a whole-class lesson, meaning that all the learners in the class participated all at once in the activities set out by the teacher (as opposed to a station lesson). The learners were taken onto the field and P5 (teacher) used a drum to get their attention during the lesson. They did a very simple warming up activity, which included some stretching and star jumps. She then proceeded to the body of the lesson, where she used a story as her stimulus. She provided instructions on what to do before each activity. Her activities did not cover many skills. She focused mainly

[2] No photos were taken of this lesson, as it was presented as a whole-class lesson and there were no stations.

on rolling, jumping and stretching. She also included movements that were fast and slow. She did not have a conclusion to her lesson. The learners were merely asked to make a line and go back to the class. It was very chaotic because the learners were not spaced out properly and kept bumping into each other. It was also difficult for her to see if they were all doing the activities correctly. Her assistant did not offer any help to the learners who were struggling, but merely disciplined the learners that were not listening.

In Figure 4.4, I provide evidence of P6's lesson. Her lesson also consisted of stations.

Figure 4.4: Layout of P6's PE lesson

4.5.1.5 Analysis of Figure 4.4

P6 had three stations and utilised the climbing frame and jungle gym as her fourth station. She divided the class into groups and gave them each a colour. She then explained each station to the learners and demonstrated what she required of them at the stations. She did introduce a warm-up activity, which was an action song. The learners also stretched and ran around the playground twice. The learners were then allocated a station and teacher P6 indicated that when she rang the bell, the learners

had to move in a clockwise direction to the next station. She moved between the stations guiding and encouraging the learners, and praising those that were doing well. She concluded the lesson with a breathing and relaxation activity.

Station 1 focused on eye-hand coordination. The learners took turns throwing the beanbags over the hula-hoops to each other. At station 2 the learners worked in pairs, focusing on throwing and catching the ball. The teacher instructed them to complete four under-hand, four overhead and four chest throws. The sequence was repeated until the whistle was blown to rotate to the next station. At station 3, the learners walked on stilts and then hopped in beanbags for the length of the skipping ropes. The activity required balance and coordination. For the last station, the jungle gym was utilised. The learners had to use their climbing skills to get through the obstacle course. These activities focused on core skills and balance.

A checklist was utilised to observe each lesson (see Addendum E). Each lesson was assessed based on the criteria stated in the checklist. The lesson had to include a warm up, which entails an action song and an explanation of the activities that the children will be participating in. The body of the lesson should incorporate four separate stations, each with an explanation of the activity to be conducted, the aim of the activity, the outcome of the activity and a drawing of the activity. The lesson should end with a cool down session, which includes relaxation and stretching exercises and a discussion of how the children felt about the activities that had participated in. I also observed if each station had sufficient apparatus and if the teacher had a checklist that assisted her in assessing each learner's participation in each activity.

4.6 DOCUMENT ANALYSIS

Document analysis was another data-collection method that was used for this study. Teachers' lesson plans and preparation documents were analysed. This was to ensure that data was not only collected from the participants but from text material as well. I utilised a checklist (see Addendum E) when observing the lessons and the following criteria was used during the observation:

- Were CAPS guidelines utilised?
- Did the lesson consist of station?

- Was a variety of activities presented?
- Were the learners given clear instructions on what was expected of them?
- Was a warm up and cool down activity included in the lesson?
- Did the lessons have drawings to depict each station?
- Did the teachers make provision for inclusion of learners with learning barriers?
- Did the teacher assist the learners or merely observe them?
- What were the outcomes of each lesson?
- Were the activities developmentally appropriate for the learners?

Table 4.2 below provides an analysis of the lesson plans.

Table 4.2: Excerpt taken from lesson plan analysis

Participant code	Description of lesson plan	Analysis
Participant 1	Introduction, body and conclusion included in the lesson. P1 drew pictures of each station, with brief explanations.	P1 lesson plan did not indicate the outcomes for the lessons. Even though she provided a very brief description of each station, she did not provide the focus of each activity. Her description of the introduction and conclusion were also very brief. Her lesson plan correlated with the lesson that she presented.
Participant 2	P2 lesson plan was neatly typed and included an introduction, body and conclusion. She provided drawings of the different stations.	P2's lesson plan did not include any assessment standards or outcomes. She did provide more detail on her lesson plan. Her lesson was executed exactly as stated in the lesson plan.
Participant 3	No lesson was submitted	No analysis could be done
Participant 4	P4's lesson plan was written out by hand and very untidy. It was a mind map of what she had planned. It did have the necessary information required on a lesson plan i.e. introduction, body, conclusion.	This lesson plan was very difficult to decipher but once I had managed to read it I realised that it correlated with her lesson. She had made notes on what she wanted to focus on. She also noted the assessment standards and outcomes in her plan.
Participant 5	Description of lesson plan: P5 provided a very detailed lesson plan. It included the focus of the lesson, introduction, main body of the lesson and the conclusion.	Analysis: P5's lesson provided detailed information on the lesson. Each section had a description of the outcomes that were focused on. She included aids and guidelines on what the teacher had to do.

		She highlighted the outcomes but did not include what she was assessing in the lesson.
Participant 6	P6's lesson plan provided information on the resources required, the duration of the lesson, the introduction, body and conclusion, as well as the outcomes she was focusing on.	Even though P6 highlighted all the necessary areas in her lesson plan, she did not provide detailed descriptions of each area. Her descriptions were very brief and she did not have any illustrations of the stations she had set out. She also did not provide an explanation of what would be done at each station.

My analysis of the data generated by the teacher participants indicates that in general they have a good understanding of what must be considered when planning a PE lesson. None of the participants addressed the issue of inclusion in their lesson plans. When I raised the question with them, they merely stated that they had not though about this inclusion. P3 did not have a lesson prepared and therefore did not participate in this part of the data collection. This was noted in my research journal. I noted from my observations that, P3 was not confident to plan and present PE to the Grade R learners. She did explain a lesson that she had previously done with the learners; however, I could not gather enough data to incorporate into my study.

As indicated above in Table 4.2, the other participants' insight and approach to planning appears to be based on their knowledge of PE, their practical experience of implementing PE in the Grade R programme, and continuous reflection on their experiences. However, in analysing their lesson plans, it became clear that they did not formulate PE outcomes explicitly in their planning of PE lessons. Although their lesson plans demonstrated an understanding of the variety of activities and the assessment standards, they lacked clear outcomes for each activity presented. Furthermore, I noticed that the planned PE outcomes did not always correlate with the activities presented, as demonstrated in the excerpt of my analysis of the lesson plans (Table 4.2), and in the summary of the lacunae I identified in the lesson plans.

4.6.1 PARTICIPANTS 1 AND 2: PAIR 1

Both the teachers in Group 1 provide me with well-formulated lesson plans. Both lesson plans were dated correctly, and showed the introduction, body and conclusion of the lesson. Each station had a drawing of what the activity entailed, as well as a

detailed description of the activity. However, these lessons were not part of their weekly preparation sheets, indicating that they do not always do in-depth PE lessons with the learners and that they integrate PE activities into other areas of learning. The lesson plans also indicated that the learners have opportunities during outside playtime to engage in PE activities that have been set out. According to the teachers, the other learning areas consumed too much time and therefore PE could not be implemented in accordance with the allocated time in CAPS. The use of the field was another issue they mentioned, because it is also utilised by learners in the Foundation, Intermediate and Senior Phases. This means that the teachers have to arrange their schedules accordingly. If they have a lesson planned that requires the use of the field, they first have to enquire if the field is available and whether other learners have an outside break time, in which case the noise levels may be too high to conduct a Grade R PE lesson.

4.6.2 PARTICIPANT 4

Participant 4's lesson plan included an introduction, the main activity and a conclusion. There were no drawings or diagrams showing the layout of the stations, nor was there an explanation of each station. She merely listed the activities. No outcomes were indicated on the prep. sheet. Her weekly prep. indicated that she did plan PE lessons, although this was not in accordance with the allocated time in CAPS.

4.6.3 PARTICIPANTS 5 AND 6: PAIR 2

Participant five had a very brief outline of her PE lesson. It did indicate the introduction, body and conclusion, but she did not include any explanation of the stations and did not include any diagrams. She did not highlight the outcomes that were going to be assessed in her lesson. PE was indicated on her weekly preparation sheet but according to the teacher, they did conduct PE lessons twice a week as planned. These lessons were only given when time permitted and if assessments had to be done.

Participant 6 had a detailed lesson plan, which included an introduction, body and conclusion. It also gave a brief explanation of each area, what aids were to be used and there were guidelines for the presentation of the lesson. She indicated what area

of development she was going to focus on. Her weekly preparation made provision for PE twice a week but the teacher indicated that she did not adhere strictly to her prep and found that she did not always get to do her PE lesson due to time constraints.

4.7 SYNTHESIS OF KEY FINDINGS

A synthesis of the key findings of my research is discussed in the following subsections and will be presented according to the various cases that participated. Participant 4 (from case study 2)'s findings are presented separately, because she was the only one from pair 2 who actually participated in the study.

4.7.1 CASE STUDY 1 (PAIR 1, P1 & P2)

The participants in the first pair agreed that PE was an important part of the Life Skills learning area. They agreed that gross motor skills are integral in developing pre-reading and pre-writing skills, fine motor skills and spatial awareness. The participants felt that there was not enough information in CAPS to guide and assist them in planning PE lessons. They also stated that they had not received any additional training regarding CAPS or PE as a subject. They did understand that it was part of the Life Skills learning area but they were not knowledgeable about the time allocated for PE in CAPS. Even though they had lesson plans and PE was indicated on their weekly prep. sheets, the participants did not present a formal lesson and often did not do PE at all in the week. They felt that it was integrated into the other learning areas and that the learners did sufficient movement during their ring time. When asked if they thought this was adequate, they replied no, but explained they did not have enough time in the week to get through the other important outcomes and assessment standards if a full PE lesson had to be given. The participants also said that they would like to attend a course on PE, which was practical and would welcome a manual that gave them diagrammatic examples of how to plan and set out a PE lesson, such as how to set up an obstacle course or stations. They said that they had to rely on the internet, lessons from student teachers and articles to assist them in their planning of a PE lesson. These teachers were vaguely aware of the terminology and areas that are developed during a PE lesson but they were unsure of the importance of the various areas.

Overall, pair 1 had a positive perception of PE but found it challenging to implement PE due to time constraints and lack of material resources to assist in their planning. The lesson plans reflected planning for PE, however the teachers agreed that often these lessons were spilt up and sections were done at different times of the day, or they were skipped altogether.

4.7.2 CASE STUDY 2 (PARTICIPANT 4[3])

Participant 4 agreed that PE was an important part of the Life Skills learning area. She concurred that gross motor skills are integral in developing pre-reading and pre-writing skills, fine motor skills and spatial awareness. She believed that PE was a valuable subject but explained that teachers experience challenges with its implementation. Participant 4 felt that there was not enough information in CAPS to guide and assist teachers in planning PE lessons. She also stated that she had not received any additional training regarding CAPS or on PE as a subject. Even though she was aware that if formed part of the Life Skills learning area, she was not aware of the correct time allocated for PE per week. Participant 4 was vaguely familiar with the areas that PE developed and only knew the importance of certain areas in a child's overall development. She explained that she had received no training on PE at university or when she started teaching. She relied on the internet and social media to assist her with ideas on planning of PE lessons. Similar to pair 1, this participant agreed that PE was valuable for a child's development but she also faced challenges with regard to implementation of PE. She indicated that time constraints prevented teachers from presenting a full PE lesson and that the varied age groups she had in her class also restricted her in her choice of certain PE activities

4.7.3 CASE STUDY 3 (PAIR 2, P5 & P6)

The participants in pair 2 both thought that PE was an important part of a child's development. One participant, who has been teaching for over thirty years, said that

[3] Participant 3, who was part of this case study, did not have a lesson for me to observe, thus did not participate in the lesson observation. She was not prepared when I arrived at the school for the first visit, nor was she prepared when I went for the second meeting we had scheduled. From my observations, as well as my research journal, I noted that P3 was not confident in planning and presenting a movement lesson. She did however participate in the semi-structured interview and the data collected from that was utilised in section 4.4.

she has never been given any training to equip her to plan or implement PE lessons, nor had she attended an intensive training course on CAPS. She mentioned that she had learnt from colleagues, friends, students and the internet about what was needed to implement a PE lesson. She mentioned that the school had previously employed a specialist teacher to implement a PE programme with the learners and that this had given her some idea of what needs to be done. She was unaware of the areas that PE developed but did mention that she believed it was of importance and that PE provided the foundation for the development of fine motor skills, reading and writing.

P6 had received a little more training on PE while studying but she still felt that she has to rely on written resources and do her own research to plan her lessons more effectively. She mentioned that she had gleaned ideas from the students who came to the school for teaching practice. She was a little more familiar with the areas of development that PE focused upon, however she did say that these areas were outlined in CAPS and she had read about them while researching PE lessons. Both participants said that they faced challenges with the implementation of PE and often did not have sufficient time to give these lessons. They also mentioned that that although they had sufficient space, they had to work according to the times of the preparatory school and this proved challenging. They admitted that they only presented a PE lesson once every two weeks and felt the learners probably practised various physical skills during outdoor playtime. Overall, the participants in this group agreed that they had challenges in implementing PE, although they felt it was important for the development of the learners. They did have PE indicated on their preparation sheets but most weeks they did not get around to implementing the lesson.

4.8 DATA INTERPRETATION

An inductive data analysis was used to interpret the data collected (see section 3.5). Three themes emerged from the analysis as well as several associated categories. These themes and categories form the basis for data interpretation and are presented in Table 4.3 below.

Table 4.3: Themes and categories that emerged from the data analysis

Themes	Categories
Participants' perceptions of PE	• Importance of PE • PE as a building block for learning
Implementation challenges	• Lack of time • Lack of knowledge on what is expected from CAPS • Lack of training in PE • Insufficient training on CAPS
Guidelines for PE	• Guidelines that teachers require to assist them in planning PE lessons

The interpretation of the data will be done by referring to the literature review (Chapter 2), my research questions (see section 1.3) as well as the theoretical framework that guided my study (see section 2.8).

4.8.1 PARTICIPANTS' PERCEPTIONS OF PE

This theme spoke to the second research question which attempts to determine the perceptions teachers have on PE (see section 1.4.2). The interviews held with the teachers provided insight into their perceptions of PE. Stage 2 of Fuller's CBMoTD (see section 2.5.1) provided valuable insights on the personal views teachers have on PE. Teachers had a positive perception of PE which could clearly be deduced from P2's response when she remarked: *We cannot do without it, if it was not in the curriculum I would still do it.* The participants all considered PE an important part of a child's development and said that it was necessary and essential to do PE with the learners. This concurs with the fact that learning takes place through movement. It is an integral part of a child's development and highlights the importance of the need for PE to be done on a regular basis in schools, especially during the early learning years (see section 2.4). P6 agreed that PE was fundamental in the development of fine motor skills, to begin reading and writing, and to gain core strength and stability. Research has shown that it is during the fundamental motor phase that these skills are developed (see section 2.4.1). However, the participant teachers have not acquired sufficient knowledge on the systems that PE helps to enhance and the importance of these systems in a child's learning and development. The teachers were very vague and unsure when asked what the vestibular and proprioceptive systems were (see section 4.4.3). They were also unsure what perceptual skills were

and why learners needed these skills to enhance the learning process. They did however have an understanding of the importance that the development of gross motor skills had on fine motor development (see section 4.4.16).

4.8.2 IMPLEMENTATION CHALLENGES

Stage 3 of Fuller's CBMoTD (see section 2.5.1) was used to examine how the teachers dealt with the implementation of PE practices. This stage was used to assess the advantages of implementing PE and the reasons why on occasion PE lessons seem to be relegated to the background. The first challenge that participants identified was the time allocated for the implementation of PE. This seemed to be a problem. The teachers felt that they did not have enough time to teach PE because they had to focus on other learning areas such as literacy and mathematics (see section 4.4.2). This left them little or no time to implement PE. P4's response confirms this: *Maths and literacy activities take up a lot of time, especially with the little ones. This leaves very little time to do PE.*

The second challenge the participants faced was the lack of knowledge they had on the requirements of PE in CAPS. They simply knew that it was part of the Life Skills learning area and felt that if they touched on it briefly at the beginning of a Mathematics lesson or ended a literacy lesson with an exercise or two, they were doing PE (see section 2.2). Marginalising PE which is an important facet of Life Skills, compromises the holistic education of the learners. CAPS defines PE as a basic, important part of Life Skills (see section 2.2.2).

The third challenge the participant teachers faced was the lack of training they had received on CAPS and specifically the lack of training on the importance of PE. They had received little or no training in these areas and felt that this presented them with a challenge when having to plan and present a PE lesson. Participants had a varied amount (some none at all) of training on what CAPS laid down on PE (see section 4.4.6). Most of the participants had received very basic training on CAPs when it was first implemented. Only one participant had some training on PE as part of her studies at university but the other teachers had no training at all. One of the participants had limited training on a programme that was designed to develop gross motor skills but admitted that this programme was not being utilised although they had all the equipment available. The literature highlights that teachers are unsure of

what is expected of them with regard to the curriculum changes because of the lack of in-depth training (see section 2.3). The participants said they would welcome training on PE if it was practical and they received a manual with diagrams to help them plan their PE lessons.

4.8.3 GUIDELINES FOR PE

This theme links with the third research question, which attempts to determine what guidelines can be formulated to assist with the implementation of PE (see section 1.4.2) Participants all felt that there was very limited information on PE in CAPS. Some participants had no idea of where to look for the PE time allocation in the Life Skills learning area. They explained that there are no guidelines; no examples of lesson plans; and no explanatory diagrams on how a PE obstacle course or involving various stations should be set out (see section 4.4.4). Participants felt that such teaching aids were necessary to help them plan PE lessons. Most participants said they relied on social media, resources such as books and the internet for guidance. Others used ideas from colleagues and student teachers in planning and implementing PE lessons (see section 4.4.5). They indicated they would welcome more training on suitable physical activities or structured guidelines showing exactly how to plan and implement a PE lesson, especially if diagrammatic examples were provided. P4's response confirms this: *I took out my CAPS document today for interest sake just to see the outcomes. But there's no lesson plan in CAPS. I was actually looking for the structure that they want me to use and that is what I found they did not have.* In particular, teachers emphasised they would like to have a manual on PE activities, with specific reference to setting up obstacle courses and stations.

4.9 CONCLUSION

The research findings gathered from responses to the questions in the semi-structured interviews and the analysis of the data were discussed in this chapter. The data were then organised into themes and categories based on what emerged from the transcription of the interviews. Information on the participants' understanding of PE and their implementation of PE lessons were also examined.

Information on the teachers' perceptions and their implementation of PE was provided through the process of data interpretation. The research findings discussed in this chapter indicates that there is a correlation between the findings and the theory discussed in Chapter 2. The participants indicated that there is minimal information available in CAPS and that training with regard to PE is non-existent. They also indicated that because of time constraints, they were not implementing PE as indicated in CAPS. This gap may have consequences for learners' holistic development. A summary of the study, as well as conclusions and recommendations are presented in Chapter 5.

Chapter 5
Summary and Recommendations

5.1 INTRODUCTION

In the previous chapter, the data collected was analyzed and certain themes and categories emerged which served as the basis for the interpretation of the data.

In this chapter, a summary of the literature and empirical study are presented, the research questions are answered and finally, recommendations are made based on the research conducted.

5.2 SUMMARY OF LITERATURE AND RESEARCH FINDINGS

5.2.1 SUMMARY OF KEY LITERATURE FINDINGS

The holistic development of the child is advocated by numerous researchers (see section 2.2). PE is one of the key areas, along with spiritual, intellectual, social, emotional and occupational domains, that contribute to the holistic development of the child. Literature indicates that holistic education is part of the CAPS curriculum and is an integral part of developing the whole child (see section 2.3). With this being said, only two hours per week is allocated to PE.

PE also has a determining impact on a child's learning and acquisition of reading and writing and is fundamental in the developing of the necessary skills to enable a child to sit upright at a desk, hold a pencil correctly and read with ease (see section 2.3.1) . The development of gross and fine motor skills forms a firm foundation for the child to perform various tasks, as he/she grows older. According to the literature, a simple reason for movement is to improve a child's movement skills, which are necessary for learning (see section 2.3.1). Theorists advocate the teaching of PE and say that it offers the necessary motivation for optimal development and functioning.

It is concerning to note that children seem to be more interested in technology and can be found playing games on a tablet or watching television. Studies have shown that this may lead to an unhealthy lifestyle and increases the risk of obesity (see section 2.3.1). Statistics show a disturbing increase in levels of sedentary behaviour

and obesity among young children. This has resulted in high levels of low muscle tone and in turn this has a detrimental ripple-effect on reading, writing and learning. It is with this in mind that the importance of PE has been highlighted in the literature (see section 2.4).

The fundamental phase of motor development is regarded as the most crucial stage of motor development (see section 2.4.1). It is the stage when the child gains increasing control of gross and fine motor movements. A child's activities and environment should be structured to reach his/her full potential during this stage. PE is also indispensable in the development of the sensory system, which has a determining influence on how a child learns (see section 2.4.2). All developmental domains of the child are enhanced by PE (see section 2.4.3) and it is vital that opportunities are presented for the child to experience movement to enhance these areas.

The literature consulted provided ample insight into the importance of PE on a child's holistic development, ability to learn and to perform vital tasks and activities. Researchers in this field highlight that it is crucial for a child to develop on a physical level because this area ties in with others in building the foundation for healthy development.

5.2.2 SUMMARY OF THE EMPIRICAL RESEARCH FINDINGS OF THIS STUDY

Three schools in the Tshwane South district of the Gauteng Department of Education were selected to be included in this research project. All three are all government schools. Permission was obtained from the district administration and the school principals, as well as the teachers who participated in this study. Interviews were conducted with the participants and in addition, the researcher undertook a non-participatory role and made notes while observing PE lessons. Document analysis was then carried out on lesson plans and weekly preparation sheets. The interviews were recorded on a Dictaphone and then transcribed. All the data were analysed and the following finding were made.

5.2.2.1 Teachers' perceptions on PE

Overall, the teachers had a positive perception of PE. They stated that PE was an integral part of a child's development and was very important in developing the necessary skills for adequate learning (see section 4.6.1). All the participants were aware of the importance of PE in a child's development. They were all familiar with terminology such as crossing the midline, balancing and spatial awareness, however areas of importance such as vestibular, proprioception and kinaesthetic development were almost foreign to them. They claimed that these words were not mentioned in CAPS (see section 4.4.3).

5.2.2.2 Implementation challenges

The teachers involved in the project indicated that the implementation of PE lessons was challenging. Time was a major reason why they do not implement PE for the 2 hours per week as laid down in CAPS. They felt that there was more pressure on them to teach areas like mathematics and literacy as opposed to Life Skills, in particular PE (see section 4.8.2). One of the teachers said that although planning of PE lessons is part of their preparation, they often struggle to get though the work books and therefore seldom have enough time for a PE lesson. Some of the teachers said that the lessons were not formal or planned and they felt that outdoor play presented enough opportunity for the learners to develop the necessary gross motor skills. All the participants had very little or no training with regard to CAPS and/or PE. In general participants said they would welcome a practical training session on PE. They were enthusiastic about the possibility of being given a manual to help them plan lessons and integrate them into other learning areas (see section 4.4.6).

5.2.2.3 Guidelines for PE

All the participants agreed that CAPS provides little or no information or guidelines on how to plan effectively and to present a PE lesson. Another reason why they lacked the motivation to plan PE lessons was that they felt they had to rely on other resources and search for ideas on the internet – and as always, they did not have sufficient time to do this. All the teachers agreed that it would be helpful to have a manual that gave them practical ideas and had visual representations of stations and obstacle courses.

5.3 RESEARCH CONCLUSIONS

This section will address the research questions that underpin this study (see Chapter 1) to draw final conclusions. To answer the main research question the secondary questions will be answered first.

5.3.1 SECONDARY RESEARCH QUESTION 1

What are the theoretical insights on the importance of PE for Grade R learners' development?

It is essential that learners develop their physical domain if they are to develop holistically (see section 2.2). The subject Life Skills is central to the holistic development of learners (see section 2.3). The literature indicates that the physical development of a child is vital for cognitive development and learning (see section 2.3.1). It is evident that PE has an influence on other domains as well (see section 2.4). Literature highlights that the benefits gained from PE include not only health benefits but also intellectual, social and emotional benefits (see section 2.3).

According to theorists, the best years for children to acquire the movement skills that are fundamental in their development, is between the ages of two years and seven years (see section 2.4.2). It is in this stage of fundamental development that children acquire better control of gross and fine motors skills. These skills are integral for children to learn to read and write. For these skills to be learnt, the environment must be structured to provide the child with opportunities of exploration and learning (see section 2.4.2).

The theoretical insight into a child's physical development confirms that acquiring physical skills has an important role within the Grade R classroom and for a child's general wellbeing. If this domain is neglected, it compromises the holistic development of the child (see section 2.2 and 2.3). If the focus on Life Skills in CAPS (see section 2.3) is focused on holistic development as stipulated, PE should be a daily practice in Grade R classrooms.

5.3.2 SECONDARY RESEARCH QUESTION 2

What are teachers' perceptions on PE in Grade R?

The Grade R teachers who participated in this research project perceived PE as an integral part of a child development. They all agreed that learners should be exposed to a variety of PE activities (see section 4.4.16). As reported by some participants in this study, they would present PE classes even if it were not a part of the curriculum. They do however feel that it the time allocation for PE in CAPS is very limited and it often gets neglected because of the focus on other subjects (see section 4.4.9). Teachers did not have much knowledge on the curriculum and policy requirements for PE (see section 4 4.2). All the participants knew was that it formed part of the Life Skills area and that it was mandatory because there are specific outcomes in this area that need to be assessed. They were not very knowledgeable on the specific time allocation that CAPS lays down for PE and most teachers did not include an allocation for PE in their timetables for the week. PE was instead being done on an irregular basis, purely for assessment purposes and not as a planned lesson for 20 minutes per day (see section 4.4.9).

5.3.3 SECONDARY RESEARCH QUESTION 3

What guidelines can be formulated to support teachers' implementation of PE in Grade R?

There were various guidelines that were formulated from the data that was collected. Recommendations are made for the Department of Education, policy-makers, teachers and researchers who would like to research this topic further. This question will be addressed in more detail in section 5.4.

5.3.4 PRIMARY RESEARCH QUESTION

How do Grade R teachers understand and implement PE according to CAPS?

The subject Life Skill in CAPS comprises four areas. These are headed Beginning Knowledge; Personal and Social Well-being; Creative Arts and PE (see Figure 2.2). The time allocation for PE is 2 hours per week.

The Grade R teachers who participated in this research project have minimal understanding of what is expected of them with regard to the implementation of PE.

The CAPS document provides very little information on what form a PE lesson should take (see section 4.4.4). CAPS only provides the outcomes and the teacher's use these to guide them when planning a PE lesson (see section 4.4.2).

The implementation of PE presents numerous challenges. The teachers reiterated that there is indeed a lack of training on how to teach PE in line with CAPS (see section 4.4.6). They felt the need for more information on the subject, with guidelines on how to prepare a PE lesson. They also mentioned that the lack of time poses a challenge (see section 4.4.9). Another problem these teachers face when implementing PE is that the parents have little understanding of the importance of PE (see section 4.4.15). These findings show that PE is not implemented properly in Grade R and may thus even have a negative effect on the development of the learner. It was evident in a close study of the data collected and field notes taken, that teachers lack understanding of the purpose of PE and found it difficult to implement PE lessons. PE is not a priority amongst teachers and some participants admitted that PE lessons were only implemented to fulfil the assessment criteria.

5.4 RECOMMENDATIONS

The following recommendations are made for the Department of Education, policy-makers, teachers and researchers who would like to research this topic further.

5.4.1 RECOMMENDATIONS DIRECTED TOWARDS THE DEPARTMENT OF EDUCATION

5.4.1.1 Recommendation 1: Provision for training of teachers in PE

The DBE should provide more training and support for teachers on the implementation of PE. The Integrated Strategic Planning Framework for Teacher Education and Training (TED) should make provision for training that focuses on PE. This training should be on a practical level, to provide teachers with the experience of carrying out the activities and learning how to teach PE successfully. It is in this way that the implementation of PE will be successful.

5.4.1.2 Recommendation 2: Guidelines on PE should be provided by the DoE

Because As teachers are still unsure about how to plan and implement a PE lesson successfully, the DBE should provide practical, easy to follow, and clear guidelines to

teachers to help them to teach PE. This will also help to build their confidence with regard to the implementation of PE lessons and will diminish the uncertainty and negativity that is currently felt as far as this subject is concerned.

5.4.1.3 Recommendation 3: Updating of policies

The DBE should update its policies to include progression of PE across the phases, as well as provision of examples of PE lessons and ideas that could help spark the teachers' interest in planning a PE lesson. This would provide the teachers with information on how PE should progress through a phase and what is expected from them in their particular grade.

5.4.2 RECOMMENDATIONS DIRECTED TOWARDS SCHOOLS

5.4.2.1 Recommendation 4: Schools invest in training and workshops

Schools should invest in sending their teachers for in-depth CAPS training as part of their continued professional development training (CPTD) with specific focus on PE as a subject. Workshops should be conducted and staff meetings held to inform teachers on the importance of PE. Practical examples of activities could be presented to the teachers to motivate them ad provide insight on how to teach PE to the learners.

5.4.2.2 Recommendation 5: Schools should allow teachers to peer-teach

Schools should allow teachers to peer-teach and observe each other's lessons. This should be timetabled during preparation meetings and will provide the teachers with opportunities to learn from one another, as well as reflect on their lessons and get constructive feedback from colleagues. An important additional advantage would be to expose older teachers to various methods of presenting PE lessons and spark new enthusiasm.

5.4.3 RECOMMENDATIONS DIRECTED TOWARDS TEACHERS

5.4.3.1 Recommendation 6: Team planning of PE lessons by teachers

Teachers should put more emphasis and effort into planning two PE lessons per week in their specific phases to stimulate more ideas on suitable activities. Teachers

should work as teams, pooling their resources. Reflection on past lessons will also be beneficial. Here teachers could discuss how they felt their lesson/s went and could possibly work on improvements based on their reflections.

5.4.3.2 Recommendation 7: Addressing the principal on the lack of training

It is crucial that teachers voice their feelings on the implementation of PE in CAPS. It is my recommendation that teachers address the lack of training with their principals or heads of department Teachers should make suggestions to the principal on what training, workshops, manuals and guidelines they require to ensure that there is better understanding of the purpose of PE. This will also assist them with practical implementation strategies that they can use.

5.4.4 RECOMMENDATIONS FOR FURTHER RESEARCH

5.4.4.1 Recommendation 8: Further research on implementation strategies in Grade 1 to Grade 3

This study focused on teachers' understanding and implementation of PE in Grade R. It is recommended that further research be done on the implementation strategies of Foundation Phase teachers, particularly from Grade 1 to Grade 3. This would provide insight on the progression of PE, as well as the implementation of PE in Grade 1 to Grade 3.

5.5 CONCLUDING REMARKS

The aim of this research study was to investigate Grade R teachers' understanding of PE, as well as their implementation practices. The empirical research provided me with insight into the degree of understanding the teachers have of PE and their implementation strategies in line with the CAPS requirements. It also highlighted challenges that are encountered in the implementation of PE and gave me insight into the perceptions which teachers have of teaching PE in Grade R. I hope that my recommendations will promote a better understanding of PE and its implementation.

It was enlightening for me to realise that the implementation of PE is beneficial in the holistic development of learners, but at the same time it is disheartening to learn that teachers have minimal understanding of the benefits PE can exert on learning and

the impact it has on the development of crucial skills that children require if they are to learn to read and write.

I trust that this research study will encourage other researchers and policy makers to fill the gaps that still exist in teaching PE within the FP. Furthermore, I hope earnestly that this research will contribute to the education of young learners.

REFERENCE LIST

Amusa,L.O. & Toriola, A.L, 2008. Children's perceptions of physical education and school sports at selected South African schools. *African Journal for Physical, Health Education, Recreation and Dance,* 14(4), pp. 355-372.

Arendale, D., 2016. *Best Education Practices.* [Online]
Available at: http://www.besteducationpractices.org/what-is-a-best-practice/
[Accessed 12 November 2017].

Ary, D., Jacobs, L. C., & Razavieh, A. 2006. *Introduction to Research in Education*, 7*th Edition*. California: Wadsworth / Thomson Learning.

Ayers, A., 1979. *Sensory intergration and the child.* California: Western Psychological Services.

Ball, S., 1990. *Politics and Poliy-making in Education.* London: Routledge.

Barnes, H. & Lyons, N., 1979. Education as an art: the Rudolf Steiner. In: *In Educating as an art, E. Piening and N. Lyons, Eds.* New York City: The Rudolf Steiner School Press, pp. 7-15.

Blythe, S., 2000. Early learning in the balance: Priming the first ABC. *Support for learning,* 5(4), pp. 154-158.

Booth, F., & Chakravarthy, M, 2002. *Cost and consequences of sedentary living: New battleground for an old enemy.* Washington DC: President's Council on Physical Fitness and Sports.

Breslin, CM., Morton, JR & Rudisil, ME, 2008. Implementing a Physical Activity curriculum into the school day: helping early chidlhood teachers meet the challenge. *Early Childhood Education Journal,* 35(5), pp. 429-437.

Burn, R., 2000. *Introduction to Research Methods.* London: SAGE Publications.

Burn, R., 2005. *Learning Connections to reading skills creeping and crawling.* [Online]
Available at: http://learningconnections.org.uk/2005/11/learning-conncetions-to-reading-skills.html
[Accessed 12 July 2017].

Burton, D. & Bartlett, S., 2009. *Key isues for education research.* London: SAGE Publications Ltd.

Calitz, E., 1997. Why do children move?. *SA Journal of Preschool Education,* 22(1), pp. 34-38.

Cheatum, B.A. & Hammond, A.A, 2000. *Physical activities for improving childrens learning and behaviour.* Champaign: Human Kinetics.

Cohen, D. & Crabtree, B., 2002. *Qualitative Research Guidelines Project.* [Online]
Available at: http://www.qualres.org/HomeThic-3697.html
[Accessed 8 July 2015].

Cohen, L. Manion, L. & Morrison, K., 2000. *REserach methods in education.* 5 ed. Abingdon, Oxon: Routledge, Falmer.

Collis, J. and Hussey, R, 2009. *Business Research.* Palgrave: Macmillan.

Corso, M., 1993. Is developmentally appropriate physical education the answer to children's school readiness?. *Colorado Journal of Health, Physical Education, Recreation and Dance,* 19(2), pp. 6-7.

Cratty, B., 1973. *Movement, behaviour and motor learning.* London: Henry Kimpton.

Creswell, J., 2005. *Educational Reserach: planning , conducting and evaluating quantitative and qualitative research.* 3 ed. Upper Sadle River, New Jersey: Pearson Prentice Hall.

Creswell, J., 2010. Mapping the developing landscape of mixed methods research. *SAGE handbook of mixed methods in social & behavioral research,* Volume 2, pp. 45-68.

Creswell, J., 2013. *Research design: Qualitative, quantitative, and mixed methods approach.* Thousand Oaks: SAGE Publications..

Deetz, S., 1996. Describing differences in approaches to organization science: Rethinking Burrel and Morgan and their legacy. *Organization Science,* 7(2), pp. 191-207.

Delacato, C., 1959. *Treatment and prevention of reading problems. The neuro-psychological approach..* Springfield, Illinois: Charles C Thomas.

Delacato, C., 1970. *A new start for the child with reading problems. A manual for parents..* Springfield, Illinois: Charles C Thomas.

Demetriou, Y. and Höner, O., 2012. Physical activity interventions in the school setting: A systematic review. *Psychology of sport and exercise,* 13(2), pp. 186-196.

Denzin, N., 1994. The arts and politics of interpretation. In: *Handbook of qualitative research.* Thousand Oaks CA: Sage, pp. 500-515.

Department of Basic Education, 2011a. *Curriculum and Assessment Policy Statement. Grades R-3.,* s.l.: Government Printing Works.

Department of Edducation, 2011a. *Government Gazette.* Pretoria: Government Printers.

Dicicco-Bloom, B & Crabtree, B.F, 2006. *Making sense of Quality Research.* [Online] Available at: http:www.hu.liu.se
[Accessed 7 August 2015].

Du Toit, D.; Van der Merwe, N. & Rossouw, J.P., 2007. Return of physical education to the curriculm: Problems and challenges facing schools in South African

communities. *African Journal for Physical Health Education, Recreation and Dance,* 13(3), pp. 241-253.

Education, D. B., 2011. *Department of Basic Education.* [Online]
Available at:
http://www/education.gov.za/Curriculum/NCSGradesR12/CAPSFoundation/tabid/511/Default.aspx.
[Accessed 2 September 2017].

Education, D. o. B., 2011. *CAPS Policy Document - Grade R.* [Online]
Available at:
http:www.education.gov.za/Curriculm/NCSGradeR12/CAPSFoundation/tabid/571/Default.aspx.
[Accessed 25 November 2016].

Edwards-Meyer, D. and Louw, N., 2012. *Smart choices for responsible social behaviour: a guide for young adults..* Cape Town: Lavender Moon Publishing and Printing.

EOA, C., 2016. *EOA National Best Practices Centre.* [Online]
Available at: www.bestpractises.org
[Accessed 23 Septmeber 2017].

Fitzpatrick, K., 2013. *Critical Pedagogy, Physical Education and Urban Schooling. Counterpoints: Studies in the Postmodern Theory of Education.* New York: Peter Lang New york.

Fredericks, C.R., Kokot, S.J., & Krog, S., 2006. Using a developmental movement programme to enhance academic skills in Grade 1 learners. *South African Journal for REsearch in Sport, Physical Education and REcreation,* 28(1), pp. 29- 42.

Fullan, M., 2007. Change Theory as a Force for School Improvement. In: *Burger J.M., Webber C.F., Klinck P. (eds) Intelligent Leadership. Studies in Educational Leadership.* Springer: Dordrecht, pp. 27-39.

Gallahue, D. & Ozmun, J., 2006. *Understanding motor development: infants, children, adolescents, adults.* New York: Mc-Graw-Hill.

Gallahue, D.L., Werner, P.H. & Luedke, G.C., 1975. *A conceptual approach to moving and learning.* New York: John Wiley & Sons, Inc.

Gambold, L., 2010. Case Study & Narrative Analysis . In: *Encyclopedia of Case Study Research .* Thousand Oaks: Sage Publications, pp. 239-243.

Garret, R. & Wrench, A., 2007. Physcial experinces: Primary student teacher's conceptions of sport and physical education. *Physical Education and Sport Pedagogy,* 12(1), pp. 23-42.

Gehris,J.S ; Gooze, R.A. & Whitaker, R.C., 2015. Teachers' perceptions about children's movement and learning in early childhood education programmes. *Child Care Health Development,* 41(1), pp. 122 -131.

Goddard-Blythe, S., 2000. Early learning in the balance: priming the first ABC. *Journal for support for learning,* 15(4), pp. 154-157.

Goddard, S., 2002. *Reflexes, learning and behaviour. A window into the child's mind.* Eugene Oregon: Fern Ridge Press.

Hannaford, C., 2005. *Smart Moves: Why learning is not all in your head.* Salt lake , Utah: Great RIver Books.

Hardman, K., 2008. Physical EDucation in SChools: A Global Perspective. *Kinesiology,* 40(1), pp. 5-28.

Hetller, B., 1976. *National Welness Institute.* [Online]
Available at: © National Wellness Institute, Inc. | NationalWellness.org | 715.342.2969
http://c.ymcdn.com/sites/www.nationalwellness.org/resource/resmgr/docs/sixdimensionsfactsheet.pdf
[Accessed 25 May 2017].

Hynes-Dusel, J., 2002. Teaching strategies for early childhood movement programs. *Teaching Elementary Physical Education,* 13(1), pp. 18-20.

Jensen, E., 2000b. Moving with the brain in mind. *Educational Leadership,* Issue November, pp. 34-37.

Keogh, J. & Sugden, D., 1985. *Motor skill development.* New York: MacMillan Publishing Company.

Kephart, N., 1975. *The slow learner in the classroom,* Columbus, Ohio: Merrill.

Kids Sense, 2017. *Kids Sense.* [Online]
Available at: https://childdevelopment.com.au/areas-of-concern/sensory-processing/
[Accessed 21 August 2017].

Kochhar_Bryant.C, 2010. *Effective Collaboration for education the whole child.* [Online]
Available at: https://www.sagepub.com/sites/default/files/upm-binaries/34869_Kochhar_Bryant__Effective_Collaboration_for_Educating_the_Whole_Child_Ch1.pdf
[Accessed 22 Sepetember 2017].

Kokot, S., 2006. *Movement and learning: Manual 1. Intergrated Learning Therapy Training..* s.l.:Unpublished manual.

Kranowitz, C., 2005. *The out-of-sync child. Recognising and coping with sensory processing disorder.* New York: Skylight Press Books.

Krog, S., 2010. *Movement programme as a means to learning readiness.* South africa: University of South Africa.

Krog, S., 2015. Movement activities: A critical link in developing motor skills and learning in early childhood.. *African Journal for Physical, Health Education, Recreation and Dance,* 21(1:2), pp. 426-443.

Larson, J., 1990. The Conceptualization of Health. *Medical Care Research and Review,* Volume 56, pp. 123-136.

Lawler, A., 2013. *GM Foundation of South Africa.* [Online]
Available at: http://www.gmsouthafricafoundation.com/blogarticle/life-skills-in-schools
[Accessed 7 June 2017].

Leedy, P.D., &Ormrod, J.E., 2014. *Practical research, planning and design.* 8th ed. New Jersey: Pearson Education.

Lincoln, Y. and Guba, E., 2000. Paradigmatic Controversies, Contradictions and Emerging influences. In: N. a. L. Y. Denzin, ed. *Handbook of Qualitative Research.* London: Sage Publishers.

Logan, S.A., Robinson, L.E., Wilson A.E. & Lucus, W.A., 2011. Getting the fundamentals of movement: A meta-analysis of the effectiveness of motor skill interventions in children.. *Child: Care, Health and Development,,* 38(3), pp. 305-315.

Luttrell, W., 2010. *Qualitative educational research: Readings in reflexive methodology and transformative practice.* s.l.:Routledge.

M.B Puckett & J.K Black, 2005. *The Young Child: Development from Prebirth through Age Eight..* 4 ed. New Jersey: Pearson Prentice Hall.

MacPhail, A. and Halbert, J., 2010. 'We had to do intelligent thinking during recent PE': students' and teachers' experiences of assessment for learning in post-primary physical education. *Assessment in Education: Principles, Policy & Practice,* 17(1), pp. 23-39.

Maharajh, L.R; Nkosi, T. & Mkhize, M.C, 2016. Teachers' Experiences of the Implementation of (CAPS) in KwaZulu-Natal Pry Schools. *Africa's Public Service Delivery & Performance Review,* 4(3), pp. 371-387.

Mahlo, F., 2011. *Experiences of learning Support Teachers in the Foundation Phase.* Pretoria: Univeristy of Pretoria.

Mahmoudi, S., Jafari, E., Nasrabadi, H. & Liaghat Dr, M.J., 2012. Holistic education: An Approache for 21 Century.. *Internation Edcuation Studies,* 5(3), pp. 178 - 186.

Marczak, M., and Sewell, M., 2007. *Using Focus Groups for Evaluation.* [Online]
Available at: http://ag.arizona.edu/fcs/cyfernet/cyfar/focus.htm
[Accessed 22 September 2017].

Maree, J., 2012. *Complete your thesis or dissertation successfully: Practical Guidelines.* Capetown: Juta & Company Ltd.

Maree, K., 2007. *First steps in research.* Hatfield, Pretoria: Van Schaik.

Martin,L.,2016. *Learning Liftoff.* [Online]
Available at: https://www.learningliftoff.com/the-importance-of-life-skills-based-education/
[Accessed 12 August 2017].

Martin, L., 2016. *Learning Liftoff: Reaching new heights in your childs education.* [Online]
Available at: http://www.learningliftoff.com/the-importance-of-life-skills-based-education/#.WcfLg8uQwcA
[Accessed 25 September 2017].

Massey University, 2002.1b. *Teaching in the psychomotor domain.* [Online]
Available at: http://education.massey.ac.nz/wellington_online/virtcamp/index.htm
[Accessed 5 May 2018].

Mayesky, M., 2009. *Creative activities for young children.* Clifton Park, NY : Delmar Cengage Learning.

McMillan, J.H. & Schumacher, S., 2014. *Research in education: Evidence-based inquiry.* 6 ed. Boston: Pearson Education.

Merriam, S., 1998. *Qualitative research and case study applications.* 2 ed. San Fransico: Josseu-Bay.

Miles, MB. & Huberman, AM., 1994. *Qualitative data analysis.* 2 ed. Thousdan Oaks: CA:Sage Publications.

Miller, R., 1991. *New Directions in Education: Selections from Holistic Education Review.* Brandon: VT:Holistic Education Press.

Miller, R., 2000. *Caring for new life: Essays on holistic education.* Brandon : VT: Foundation for Educational Renewal.

Mota, J., Silva, P., Santos, M.P., Ribeiro, J.C., Oliveira, J. and Duarte, J.A., 2005. Physical activity and school recess time: differences between the sexes and the relationship between children's playground physical activity and habitual physical activity. *Journal of sports sciences,* 23(3), pp. 269-275.

Mouton, N; Louw, G.P. & Strydom, G.L., 2012. A Historical Analysis Of The Post-Apartheid Dispensation Education In South Africa (1994-2011). *International Business & Economics Research Journal,* 11(11), pp. 1211-1222.

Nel, N., Nel, M. & Hugo, A., 2013. *Learner Support in a Diverse Classroom: A Guide for Foundation, Intermediate and Senior Phase Teachers of Language and Mathematics..* Pretoria: Van Schaik.

Newby, P., 2014. *Reserach methods for Education.* 2nd ed. London: Routledge.

Nieuwenhuis, J., 2007. Qualitative research designs and data gatehring techniques. In: *K.Maree (Ed.) First steps in research .* Pretoria: Van Schaik, pp. 70-92.

Oden, A., 2017. *Ready Bodies Learning Minds -Tactile, vestibular and prorioceptive.* [Online]
Available at: http://www.readybodies.com/tactile-vestibular-proprioceptive/
[Accessed 5 April 2017].

Olds, A., 1994. *From cartwheels to caterpillars: childrens need to move indoors and out..* s.l.:Early Childhood Exchange.

Organization, W. H., 2010. *Global recommendations on physical activity for health.* [Online]
Available at: http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf
[Accessed 5 April 2017].

Oxford Press, 2017. *Oxford Dictionaries.* [Online]
Available at: https://en.oxforddictionaries.com/definition/practice
[Accessed 20 September 2017].

Pattan, M.Q. & Cochran, M., 2002. *A guide to using qualitative research methodology.* [Online]
Available at:
http://fieldresearch.msf.org/msf/bitstream/10144/84230/1/Qualitative%20research%20methodology.pdf
[Accessed 8 July 2015].

Patton, M., 2014. *Qualitative evaluation and research methods.* 2 ed. London: Sage.

Perry, HM., Mohangi,K., Ferreira, R., & Moletsane, M., 2012. 'Teachers' understanding and implementation of the National Curriculum for Physical Development in the reception year. *South African Journal for Research in Sport, Physical Education and Recreation,* 34(1), pp. 123-136.

Pheloung, B., 2003. *Help your child learn.* Sydney: Iceform.

Pica, R., 2004. *Experiences in movement: Birth to age 8..* Canada: Thompson, Delmar.

Porritt, J., 2001. Seeing Green. In: W.Bloom, ed. *The Penguin Book of new age and holistic writing.* England: Penguin Books, p. 113.

Porritt, J., 2001. Seeing Green. In: W.Bloom, ed. *The Penguin Book of new age and holistic.* England: Penguin Books, p. 113.

Richardson, V. and Placier, P., 2001. *Teacher change:Handbook of research on teaching.* 14th ed. New YOrk : Macmillan.

Ridgers, N.D., Stratton, G. and Fairclough, S.J., 2006. Physical activity levels of children during school playtime. *Sports medicine,* 36(4), pp. 359-371.

Robert-Holmes, G., 2005. *Doing Your Early Years Research Project: A Step by Step Guide.* 4th ed. London: Sage.

Rubin, A., & Babbie, E., 2010. *Research methods for social work.* Belmont, CA: Cengage/Brooks & Cole.

Rudge, L. T., 2008. *Holistic education: An analysis of its pedagogical application.* USA: University of Ohio.

Rule, P. and John,V., 2011. *Your guide to case study research.* Pretoria: Van Schaik.

Seabi, J., 2012. Research designs and data collection designs. In: *Complete your thesis or dissertation successfully:practical guidelines.* Capetown: Juta & Company Ltd, pp. 81-93.

Seaman, JA., DePauw, KP., Morton, KB. & Omoto, K., 2003. *Making connections. From theory to practice in adapted physical education.* Arizona: Holcomb Hathaway Publishers.

SEDL, 2013. *Concerns-Base Adaptation Model.* [Online]
Available at: http://www.sedl.org/cbam/
[Accessed 14 February 2014].

Seidel, J. & Kelle, U., 1995. Different functions of coding in the analysis of textual data. In: *Computer-aided qualitative data analysis: Theory, methods and practice.* London: Sage, pp. 52-61.

Seidel, J., 1998. *Qualitative Data Analysis.* [Online]
Available at: http://www.qualisresearch.com/DownLoads/qda.pdf
[Accessed 6 January 2016].

Shenton, A.K., 2004. *Strategies for ensuring trustwortiness in qualitative research projects.* [Online]
Available at: http://www.crec.co.uk/docs/trustworthypaper.pdf.
[Accessed 7 July 2015].

Shenton, R., 1995. *The art of case study research.* Thousands Oaks: Sage Publication.

Sherman, C., Tran, C., & Alves, Y., 2010. Elementary school classroom teacher delivered. *Physical Educator,* Volume 67, pp. 2-17.

Singh, K., 1996. *Education for the Global Society', in Learning: The Treasure Within, The Report to UNESCO of the International Commission on Education for the Twenty First Century,.* Paris, UNESCO.

Sitzer, J., 2003. *Life Orientation: a learning area in South African schooling curriculum. A paper prepared for presentation at the school sport indaba hosted by the Western Cape School Sport Association,* s.l.: unpublished.

Smylie, M. & Evans, A.E., 2006. Social CApitla and the Problem with Implementation. In: *New Directions in Education Policy Implementation.* New York: State University of New York Press, pp. 187-290.

Somekh, B. and Lewin, C., 2005. *Research Methods in the Social Sciences.* London & Thousand Oaks CA: Sage Publications.

Stake, E., 1995. *The art of case study research.* Thousand Oaks CA: Sage.

Steyn, M.;Schuld, N. & Hartell, C., 2012. A Birds eye view om the status of the module Life Skills in the Foundation Phase at Higher Education Institutions on South Africa.. *South African Journal of Childhood Education,* 2(2), pp. 158 -176.

Summerford, C., 2001. What is the impact of exercise on brain function for academic learning?. *Teaching Elementary Physical Education,* 12(3), pp. 6-8.

Teddlie,C. & Tashakkori, A., 2009. *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences..* London: Sage.

Terre Blanche, M., Durrheim, K., Kelly, K., 2006. First steps in qulitative data analysis. In: *Research in Practice.* Cape Town: University of CApe Town Press, pp. 320-344.

Thomas, D., 2003. *A general inductive approach,* New Zealand: University of Auckland.

Tomporowski, P.D., Davis, CL., Miller, PH & Nagleri, JA., 2008. Exercise and Children's Intelligence, cognition and acadamic achievement. *Educ Pshychol Rev,* Volume 20 , pp. 111-113.

Trochim, W., 2006. *Research methods knowledge base.* [Online]
Available at: http://www.socialresearchmethods.net/kb/qualval.php
[Accessed 4 July 2015].

Trudeau, F. & Shephard, R.J., 2008. Physical education, school physical activity, school sports and academic performance. *International Journal of Behavioral Nutrition and Physical Activity,* 5(10).

UNICEF, 2012. *Global Evaluation of Life Skills Education Programmes.* New York: s.n.

Van Deventer, K., 2004. A case for physical education/life orientation: The health of a nation. *South African Journal for Research in Sport, Physical Education and Recreation,* 26(1), pp. 107-121.

Van Deventer, K., 2007. A paradigm shift in life orientation: A review. *South African Journal for research in sport, physical education and recreation,* 29(2), pp. 131-146.

Van Deventer, K., 2009. Perspectives of teachers on the implementation of life orientation in grades R-11 from selected Western Cape schools. *South African Journal of Education,* Volume 29, pp. 127-145.

Van Deventer, K., 2009. Persepectives of teachers on the implementation of life orientation in Grades R-11 from selected Western Cape Schools.. *South African Journal of Education,* 29(1), pp. 127-145.

Van Hout, R.C.H., Young, M.E., Bassett, S.H. and Hooft, T., 2013. Participation in sport and the perceptions of quality of life of high school learners in the Theewaterskloof Municipality, South Africa. *African Journal for Physical Health Education, Recreation and Dance,* 9(12), pp. 612-622.

Verstraete, S.J., Cardon, G.M., De Clercq, D.L. and De Bourdeaudhuij, I.M., 2006. Increasing children's physical activity levels during recess periods in elementary schools: the effects of providing game equipment. *European journal of public health,* 16(4), pp. 415-419.

Vives- Rodriguez, M., 2005. *Preschool Physical Education: A case study of the factors that influence movement instruction to preschool children,* Florida: Florida State University.

Walter, C., 2014. Promoting physical activity: A low cost intervention programme fro disadvantaged schools in Port ELizabeth, SOuth Africa.. *African Journal for Physical Health Education,* 20(2:1), pp. 357-371.

Welman, JC. & Kruger, SJ., 2005. *Research Methodology.* New York: Oxford Press.

Williamson, G & Anzalone, ME, 2001. *Sensory intergration and self-regulation in infants and toddlers: Helping very young children interact with their environment..* Washington: Zero to Three.

Willig, C., 2001. *Introducing qualitative research in Psychology:Adventures in theory and memory.* Buckingham: Open University Press.

Wuest, D.A. & Bucher, C.A., 1995. *Foundations of Physical Education and Sport.* 12th ed. St Louis, Missouri: Mosby.

Yin, R., 2015. *Qualitative research from start to finish.* s.l.:Guilford Publications.

Zukowski, G. & Dickson, A., 1990. *On the move: Handbooko for creative movement with young children.* United States of America: Southern Illinois University Press.

ADDENDUMS

ADDENDUM A

Letter of consent for research to school principal

April 2016

LETTER OF CONSENT TO CONDUCT RESEARCH

Dear Principal

As a MEd student from the University of Pretoria, I am required to do research as part of my post-graduate studies. The topic of PE is of particular interest to me and I have therefore, chosen *Teachers understanding and implementation of PE in Grade R* as my focus.

It was my aim to select three schools in Pretoria that have Grade R classes and implement PE as part of their curriculum, one being _____. Your school has been selected as I believe your institution, as well as your teachers are in the best position to assist with my study. In order to address the research questions, a qualitative approach will be followed which will involve several data collection methods:

1. With regard to the understanding and implementation of PE in Grade R, I would like to use two Grade R teachers from your school. I shall make use semi-structured interviews with the teachers to gain an understanding of how PE is implemented and understood.
2. Copies of their preparation documents will be required as well. With your consent I shall meet with them to discuss the documentation in more detail.

I shall gain the necessary permission from the various role-players (the Department of Education, the Ethical Committee at the University of Pretoria and the teachers themselves) to conduct my study. Once permission has been granted, I shall arrange a convenient time with the teachers to begin my data collection without infringing on their teaching or learning time.

Non-participatory observations will be done of two PE lesson per teacher. This will be done during an allocated PE lesson time so as not to infringe on teaching and learning time. No photos will be taken during this observation. I will be utilising a checklist and will be making notes on how the lesson is executed by the teacher. The semi-structured interviews will be conducted after school so as not to disrupt any contact time with the learners. The interviews will be 45 to 60 minutes in duration. I may need to arrange a follow up meeting with the relevant teacher if more information is required This meeting will be between 30 to 45 minutes in duration and will also be done after school hours.

I can assure you and your staff of confidentiality and anonymity by omitting teachers' names in any publications that may follow this research process. Only the supervisors of my MEd studies and I will have access to the raw data. I also assure you that your and teachers will not be harmed in any way. Please be informed that the respective research may be terminated should you or teachers wish to end participation in this research project. Similarly, should the data collection process elicit negative outcomes, participation in my study will be terminated.

Taking part in this study will hopefully give your school the opportunity to reflect on its teaching environment, and to gain insight into the teaching and learning. It will also potentially highlight, to various role players, the strengths and weaknesses of using PE as a tool for teaching and learning.

Should you agree to the above request, subject to the conditions outlined, please sign the letter of consent attached.

Should you require any further information, please feel free to contact me.

Your assistance in this regard is greatly appreciated.

Mrs Kalayvani Pillay

Teacher, Acting Deputy Principal

Crawford Pre-Primary Pretoria

Cell: +27 84 951 6306

Email: kalayvani@live.co.za

PERMISSION TO CONDUCT RESEARCH
I ……., herewith grant permission for my school, ……. to be involved in the study on the implementation of PE in Grade R. I am aware that the sessions with the participants will be recorded. If any research is published, the name and photograph of the participant, as well as confidentiality, anonymity and privacy of participant will be protected at all times. Signature…… Date: ……

ADDENDUM B

Invitation to participants

Invitation to participate in a research project

Title: Teachers understanding and implementation of PE in Grade R

Principal investigator: Kalayvani Pillay

Introduction

You are invited to participate in this study because you are a teacher in a grade R class; you are qualified and you are implementing CAPS. This letter is to help you decide whether you would like to participate in the research project being conducted. Please read the information provided as this will help you understand fully what is involved in the study. You can then decide if you would like to participate or not. Please do not hesitate to contact me if you have any questions.

Purpose of Study

This study will explore the level of understanding and implementation of PE programming. It will investigate whether the implementation of policy and practice of PE and the prescribed CAPS requirement are aligned. I intend to conduct a qualitative investigation on how teachers are implementing a PE programme in accordance with CAPS (2011). Results from this study may provide teachers with a better understanding of the importance of a PE programme as well as indicate the strengths and weaknesses regarding the implementation thereof in the classroom.

Duration of the study

Should you wish to participate in the study; an observation of two of your PE lessons will be done during your allocated timeslot. This will be non-participatory. I will not be

taking photos or recording this observation digitally. I will utilise a checklist to take notes during my observation of the lesson. A semi-structured interview will also be conducted with you. You will be required to answer open-ended questions regarding your understanding and implementation of PE. The duration of the interviews will be between 30 and 60 minutes. They will be conducted after school. I may need to conduct a follow up interview based on my findings, which will be between 30 and 45 minutes long. I will contact you timeously on both occasions to ascertain a date and time at your convenience.

Advantages of participation

The advantage of participating in this study is that you will be reflecting on your own personal teaching and implementation of PE lessons, as well as the use of CAPS. You will also be contributing to a study that could be beneficial to your colleagues and yourself in the future.

Your rights as a participant

Participation in this study is voluntary and you can withdraw from the study at any time you wish to do so, without giving a reason.

Confidentiality

The identities of participants will remain strictly confidential. Data that may be published in academic journals will not include any information which identifies you.

Letter of Consent

Should you agree, please sign the letter of consent attached.

If you have any questions or require additional information, please feel free to contact me. Details are below.

Your assistance is greatly appreciated.

Mrs Kalayvani Pillay

Teacher, Acting Deputy Principal

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Email: kalayvani@live.co.za

Letter of Consent – Teacher's Participation
I,……., hereby consent to participate in the study on the implementation of PE in Grade R. I am aware that a PE lesson will be observed during school time. This will be non-participatory observation and a checklist will be utilised. I am aware that all sessions will be recorded and that the duration of a session will be between 30 to 60 minutes. The sessions will take place after school hours to ensure that teaching time is not disrupted. If any research is published, the name of the participant, as well as confidentiality, anonymity and privacy of participant will be protected at all times. Signature……. Date: ……

ADDENDUM C

GDE approval letter

For administrative use only:
Reference no: D2017 / 352
enquiries: 011 843 6503

GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GDE RESEARCH APPROVAL LETTER

Date:	7 November 2016
Validity of Research Approval:	6 February 2017 to 29 September 2017
Name of Researcher:	Pillay, K.
Address of Researcher:	283 Taj Street; Laudium; 0037
Telephone I Fax Number/s:	012 374 1246; 084 951 6306
Email address:	kalayvani@live.co.za
Research Topic:	Teachers' understanding and implementation of PE in Grade R.
Number and type of schools:	THREE Primary Schools
District/s/HO	Tshwane South

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved. A separate copy of this letter must be presented to the Principal, SGB and the relevant District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted. However, participation is VOLUNTARY.

The following conditions apply to GDE research. The researcher has agreed to and may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

CONDITIONS FOR CONDUCTING RESEARCH IN GDE

1. The District/Head Office Senior Manager/s concerned, the Principal/s and the chairperson/s of the School Governing Body (SGB,) must be presented with a copy of this letter.

2. The Researcher will make every effort to obtain the goodwill and co-operation of the GDE District officials, principals, SGBs, teachers, parents and learners involved. Participation is voluntary and additional remuneration will not be paid;

3. Research may only be conducted after school hours so that the normal school programme is not interrupted The Principal and/or Director must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.

4. Research may only commence from the second week of February and must be concluded by the end of the THIRD quarter of the academic year If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.

5. Items 3 and 4 will not apply to any research effort being undertaken on behalf of the GDE Such research will have been commissioned and be paid for by the Gauteng Department of Education.

6. It is the researcher's responsibility to obtain written consent from the SGB/s; principal/s, educator/s, parents and learners, as applicable, before commencing with research.

7. The researcher is responsible for supplying and utilizing his/her own research resources, such as stationery, photocopies, transport faxes and telephones and should not depend on the goodwill of the institution/s, staff and/or the office's visited for supplying such resources.

8. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research title, report or summary.

9. On completion of the study the researcher must supply the Director: Education Research and Knowledge Management, with electronic copies of the Research Thesis, Dissertation as well as a Research Summary (on the GDE Summary template), Failure to submit your Research Report, Thesis, Dissertation and Research Summary on completion of your studies / project — a month after graduation or project completion - may result in permission being withheld from you and your Supervisor in future.

I0. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned;

11. Should the researcher have been involved with research at a school and/or a district/head office level, the Director/s and school/s concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

.....

Dr David Makhado

Director: Education Research and Knowledge Management

DATE• 2016/11/08 .....

ADDENDUM D

Ethical clearance approval letter

Ethics Committee 2 February 2017

Dear Ms K Pillay

REFERENCE: EC 16/09/01

Your application was carefully considered by the Faculty of Education Ethics Committee and the final decision of the Ethics Committee is:

Your application is approved.

This letter serves as notification that you may continue with your fieldwork. Should any changes to the study occur after approval was given, it is your responsibility to notify the Ethics Committee immediately.

Please note that you will have to fulfil the conditions specified in this letter from the Faculty of Education Research Ethics Committee. The conditions include:

1) The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment (Section E) for approval by the Committee.

- Any amendments to this approved protocol need to be submitted to the Ethics Committee for review prior to data collection. Non-compliance implies that the Committee's approval is null and void.

- Final data collection protocols and supporting evidence (e.g.: questionnaires, interview schedules, observation schedules) have to be submitted to the Ethics Committee before they are used for data collection.

2) The researcher should please note that this decision covers the entire research process, until completion of the study report, and not only the days that data will be collected.

3) Should your research be conducted in schools, please note that you have to submit proof of how you adhered to the DBE (DBE) policy for research.

4) The Ethics Committee of the Faculty of Education does not accept any liability for research misconduct, of whatsoever nature, committed by the researcher(s) in the implementation of the approved protocol.

Please note that this is not a clearance certificate.

Upon completion of your research, you need to submit the following documentation to the Ethics Committee:

 Integrated Declaration Form (Form D08),

 Initial Ethics Approval letter and,

 Approval of Title.

On receipt of the above-mentioned documents you will be issued a clearance certificate. Please quote the reference number **EC 16/09/01** in any communication with the Ethics Committee.

Best wishes

Prof Liesel Ebersöhn

Chair: Ethics Committee

Faculty of Education

ADDENDUM E

Checklist for lesson observation

ASSESSMENT CRITERIA: COMPLETION BY MASTERS STUDENT FOR RESEARCH PURPOSES

LESSON 1 GRADE R					
Lesson layout according to the specifications					
Warm-up adequate stretches, body awareness, action song					
STATION 1	**Yes**	**No**	**STATION 2**	**Yes**	**No**
Describe Activity/Aim			Describe Activity/Aim		
Outcome Category/Aspect of movement			Outcome Category/Aspect of movement		
Question			Question		
Drawings of activity			Drawings of activity		
Apparatus			Apparatus		

Photo of station			Photo of station		
STATION 3			**STATION 4**		
Describe Activity/Aim			Describe Activity/Aim		
Outcome Category/Aspect of movement			Outcome Category/Aspect of movement		
Question			Question		
Drawings of activity			Drawings of activity		
Apparatus			Apparatus		
Cooling down, adequate stretching					
Sufficient apparatus for each station			Grade R gross motor assessment checklist		

Notes

The reflection of the activities observed will be done with the teachers when I meet with them to conduct the semi-structured interviews.

REFLECTION

1. How do you feel now that the lesson is over? List a few adjectives to describe what you feel
2. What worked well in your lesson and why?
3. What went less well today?
4. What could you do to improve or do differently to make it better?
5. What did you learn today?

Reflect on the warm up

6. Did you include an activity, exercise etc. that includes gross motor actions?
7. What problems did you encounter?

Reflect on the stations

8. How many learners were in the class and how many were at each station?
9. What did you include from the list of a variety of gross motor activities covering various aspects and the categories such as locomotor, balance, manipulation, body awareness, spatial awareness, directionality, laterality, crossing midline? Did you include discovery, exploration, indirect combination etc.?
10. How did the learners experience it? Did they seem to enjoy the lesson?
11. What problems did you encounter?
12. How would you change your stations next time?

Reflect on the cooling down

13. Was your cooling down activity interesting/creative and did it promote relaxation?

Reflect on the rotation between the various stations

14. How did you arrange this, did the learners manage, was it successful, if not state how you would change it?

ADDENDUM F

Semi-structured interview list

This interview schedule is just a guideline and is subject to change as the interview progresses.

Questions

Greeting and introductions. Short explanation of the purpose of my interview and thanking the participants for their willingness to contribute to my study.

1. Understanding of PE

- How many years' experience have you had teaching a Grade R class?
- What type of training have you had with regard to the implementation of CAPS? Please elaborate.
- In your opinion, do you feel that the training you received was sufficient for you to implement PE confidently with reference to the CAPS? Please explain your answer in detail.
- Please explain your understanding of the requirements set out in the CAPS document with regard to the implementation of PE.
- Is the information provided in CAPS adequate for you to plan and execute a PE lesson? Please explain why or why not.
- Do you feel that it is necessary to utilise other material as means of referencing when planning your PE lesson? If yes, please explain what material you consult and why you feel the need to refer to additional material. If no, please explain the reason you do not use additional material.
- Please explain your personal understanding of the term PE as well as its importance in teaching and learning.
- Are you aware that the old curriculum (NCS, prior to CAPS) did not include PE as part of the curriculum? What is your perception on this?
- Please explain your understanding of the following terminology used in the CAPS document:
    - Perceptual skills
    - Tactile development
    - Vestibular development
    - Gross motor skills
    - Kinaesthetic development

- In your opinion, how does each of the mentioned areas impact learning?

2. Planning and implementation of PE activities

- How would you use a PE lesson as part of an integrated approach to teaching?
- Could you briefly explain to me how you plan a PE lesson for your classroom?
- How often do you plan PE lessons, and what is the duration of each lesson?
- What equipment or resources are made available to you by the school to plan and implement PE lessons effectively? If none, what do you utilise?
- Do you think that using equipment in PE is beneficial for the learners' development? Why do you say so?
- Where do you set up your PE lesson? Can you explain why you use this area?
- How do you normally present your PE activities? In groups (work stations), or with the class as a whole? Why do you prefer using this method?

3. Value of PE

- Do you think it is beneficial to repeat the same lesson over several days or even weeks? Please explain your answer.
- How you do observe learners progress in terms of physical development during the lesson?
- What in your opinion is the value of PE in a child's development?
- Are parents given feedback in reports on the progress noted during these lessons? Please share your opinion on the importance of sharing progress reports with parents on learners' physical development.

ADDENDUM G

Transcribed interview

Researcher: How do you feel your lesson went?

Participant 4: I think that it went relatively well; I did not prep them beforehand so I did not tell them what we were going to do. I could have done that but didn't because I wanted to see what they were going to do with it. With the introduction and at the end of my lesson, I knew that they weren't going to know [about] warm up and cooling down because we haven't done that yet. It was the first obstacle course I did with them because usually I do those things separately, like the elephant feet. They know we put [the equipment] it out during outside playtime and they can come to take it themselves. You see some of them are going to struggle, some of the babies struggled very badly today but at least I now know which of them are really struggling. Now I can go on with that again when we go outside, I will focus on them to do that. Even the jumping in the bag, we didn't have those bags until two weeks ago I'm glad we have now got that. Some of them understood fully what to do and others didn't understand so that was also interesting for me to see. I think it would have gone better if all the learners were here today because then their groups would have been equal then it would have been more of a competition.

Researcher: In terms of your warm up do you think you could have used an action song or maybe a little game?

Participant 4: Yes, definitely. I could have done that, it would have been a good idea, and would have worked better. I was trying to get them to tell me what they know about warm up because we busy with healthy living and 'my body' last week, but yes, I agree that would have been a smart idea.

Researcher: That's good because you can then always reflect on your lesson. How many years have you been teaching Grade R?

Participant 4: This is my third year of teaching Grade R.

Researcher: Have you had any training with CAPS or how were you introduced to CAPS?

Participant 4: When I started studying we were busy with the NCS but only in about my second year did they change to CAPS and then we immediately went over to CAPS. I studied in Potchefstroom at NWU and [my lecturers] immediately changed to

CAPS. They trained us very well in that and then in practical teaching we had to do a lot of observing and many of lessons. The schools in Potch were very tuned in with CAPS.

Researcher: Do you think that you have had enough training with regard to PE?

Participant 4: No, I definitely do not think I have had enough training on PE. I did not receive any [specific] training at university or when I began teaching.

Researcher: Where do you get your ideas from?

Participant 4: I'm a very sporty person myself. Most of the time I come up with my own ideas and I reflect on the things that I've seen others using. I like following people on Facebook and I subscribe to newsletters; they send you different exercises and ideas.

Researcher: So you are using other materials?

Participant 4: Yes, and I like YouTube as well; there are good ideas there. I also use books and magazines for ideas on activities. The internet also has some ideas. Pinterest is also a nice site to use.

Researcher: Do you think that there is enough information provided in CAPS?

Participant 4: No, and especially with people [who are not sporty] like me. For instance, I can do a cartwheel, so I can show the learners what I want them to do but my colleague cannot do a cartwheel. How must she teach them if I am not there and she cannot call me to show them how to do it? CAPS is there and they put out all those outcomes, all of them are there but sometimes there are no explanations provided.

Researcher: Do you think that in the CAPS document there should be a whole section on PE and physical development and what teachers should do? Perhaps even provide one or two lesson plans?

Participant 4: For instance, with the warming up activity that I did today, there's nothing about warming up in that document, so how must the teacher know what to do for warming up? It would be good to have a CD perhaps, or pictures in the book, just examples of how to do certain things because I'm a picture person and when you tell me okay, we are going to do this dance move and that it must look like this. I do not see it yet but if you explain it for me then I have it. Some people are visual and

some people are different, just by reading something I think that some people are really going to struggle if there is no explanation.

Researcher: The NCS had no PE. How do you feel about that, do you feel that was a good move?

Participant 4: No, this one is better but it's not [ideal] yet – I think that there's a lot of room for improvement. They need to provide examples and explanations of activities and lesson plans.

Researcher: How do you feel about PE in terms of education in the general sense? Do you think PE is important and why?

Participant 4: I think that it's very important but sometimes if you don't have time, or the weather does not permit it, one tends [to neglect it]. [Another issue] is the number of learners [we have to cope with] and all the space one needs to have PE. I was going to have 39 [learners] I am so glad 7 didn't come, I must be honest. With 32, that is still a large amount of learners, and for them to do everything inside is difficult. You know the weather in Pretoria, we just don't have the weather and we can't go outside or its too hot some days. I think PE is very important and we should do more but what with all these other matters one needs to assess all the time, it is [sometimes] too much.

Researcher: How often do you have to do PE according to CAPS?

Participant 4: According to CAPS?

Researcher: Is it twice a week?

Participant 4: The time I worked it out, I worked it out to be at least twice a week.

Researcher: How long should a PE lesson be?

Participant: I think about 30 minutes, but the lesson takes longer sometimes.

Researcher: I noted that you used a lot of resources, do you have these resources readily available?

Participant 4: Yes, it's here in the storeroom so we can go and take it out whenever we need it.

Researcher: Is this the first time you did a lesson like this with the learners?

Participant 4: For this year?

Researcher: Yes.

Participant 4: It’s the first time I did it this year.

Researcher: How often do you do PE lessons with the children?

Participant 4: I do obstacle courses but [it is difficult] because I have so many small kids. You saw today the one child isn’t even jumping with the sack to the bean bag. Some of them are too small, so I’m trying to do it in parts. We put lots of those things out during outside playtime.

Researcher: How do you monitor what the learners can do and cannot do?

Participant 4: We leave it there and I see who comes around and who does not. They choose where they want to go. I then call those that I see are not interested. I tell them to come and do it quickly for me and then it's done, then you can go and play your game.

Researcher: How do you assess the learners? Are there specific outcomes that you need to assess?

Participant 4: No, this term there is not one for obstacle course so it is not necessary for me to do it yet. I must assess them doing the monkey bars and also climbing up a ladder. While we were doing visual arts inside, I took them in groups of 5 and I took them out to practise. At the beginning, I do it with them so I can assess the monkey bars and the climbing the ladder one-on-one.

Researcher: If you had to use PE to teach something else like maths or literacy? How would you do that? How would you integrate it with other subjects?

Participant 4: For a maths lesson, you have to do the kinaesthetic part as well so you can use lots of that. I often them outside. I take the chairs and we all sit outside there on that open space. I then instruct them to please sit under your chair, please stand behind your chair. You can do patterns and sequencing as well.

Researcher: Why do you think that using the equipment is important for their development?

Participant 4: I think some days its good not to use anything. Some days I don't use anything. Then we just do skipping, jumping and rolling. On other days I think it's important to use all the [equipment] especially with learners who live in flats. Then they get exposed to things they have not experienced before.

Researcher: What do you understand by perceptual skills?

Participant 4: Like perception?

Researcher: What perceptual skills would you have in place for reading and writing?

Participant 4: Oh, like with their body and [such] things?

Researcher: Yes.

Participant 4: Gross motor and fine motor. Gross motor I would say when they are walking they must cross a line for midline. For fine motor, I do lots of stuff inside where I let them climb on chairs and they have to put pegs on here. Sometimes I put numbers on there or they have to pin something up for me.

Researcher: How do you develop their vestibular system?

Participant 4: Vestibular, I don't think we have enough stuff to do vestibular. I must tell you when I started working here, I never had training in vestibular, they never mentioned it at all when I was studying. When I got here one of my colleagues mentioned it and she was talking about it and she said they were taught [about this] at Tuks. I went to research it because I didn't even know what the word meant. I know it is like going on the swing and turning it back. I know it is about the hair in your ears but it was amazing to me to that the one university tells you about it and the next one you go to, there is not even any information in any of the textbooks we used.

Researcher: Why is it important to repeat a lesson over several days or maybe in the same week?

Participant 4: A PE one?

Researcher: Yes.

Participant 4: It depends on what it is. If it was something, they learnt quickly and they did it perfectly, I would not do it in the same week. I know I can implement parts of it in the next lesson. If it was something I saw them struggle with, I could introduce it in a different obstacle course and swap it out with easier or more difficult things.

Researcher: What do you use to assess the learners?

Participant 4: Some things I use a checklist and I tick it if they could do it or make a note if they couldn't manage. Sometimes I don't use a checklist, I go according to a diagram with what the department wants with a 1, 2, 3, 4, 5, 6, 7. I can at times write the number immediately, other times I record it on a class list and then go home and capture the marks on my computer.

Researcher: What do you think the value of PE is for the learners' development?

Participant 4: Times have changed from when I was young. When I was young we liked playing outside. I never knew things like iPad's and all these [technical

gadgets]. Now learners are just going on about this and that games. I can see with lots of them they can't cut, they can't draw, they don't know how to hold the pencil or the crayon and it's because they didn't learn to play outside first. Parents do not seem to understand that. If I tell them their children have to play outside and do things with their bodies to get used to doing things in class, they think I am crazy because they do not understand the connection. So I think it is important to make parents aware of how the gross motor skills connects to fine motor, and then how it works with school work. [The problem is] many of them are uneducated, they don't understand.

Researcher: How then do you communicate with the parents on their children's physical development? In a report, for example, how do you tell that they need to work on skipping for instance, or balancing

Participant 4: I like keeping an open channel of communication with my parents. I have a WhatsApp group that I use to communicate to the parents. If I see a child is struggling badly then I contact the mothers myself before I even do the assessment or the report. I contact them, or I write in the diary saying that they are struggling with whatever it is they are [finding problematic]. I ask them to please do a little exercising with them. Usually the parents that do contact me are those who want to work together with me. You do get some that do not want to and I can see it in the child's work as well. Then one has to just do it with them here as much as possible – help them to practise.