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**Moving Primary PE Forward: How Can I Embed Physical Literacy
Informed Practice at Primary Level?**

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Abstract

This action research self-study tells the story of my professional learning journey. The purpose of this research is to explore how I can embed physical literacy (PL) informed Physical Education (PE) at primary level. My values of respect, democracy and voice are interwoven throughout as key contributors to the research and an extension of my Froebelian values. I endeavour to live more closely to my values and move primary PE forward from a performative and sports-based model in my practice. **Literature Review:** I present a critical review of the pertinent literature that details how PL potentially informs PE. Much of the existing research to date has been a top-down approach and a lacuna of data has emerged in the field. The literature also highlights that there is a continuing epidemic of physical inactivity. Thus, what is taught and how the increased time afforded to PE in the *Draft Primary Curriculum Framework* (NCCA, 2020) demands consideration. These theoretical insights inform my journey. **Methodology:** The participants of this action research were in a multi-grade third- and fourth-class co-educational setting. Qualitative research methods guided the research. I designed and planned an intervention that involved three strategies. These strategies included PE as teaching and learning, mapping the PL journey as assessment and meaningful PE strategies as an extension of PL. **Results:** I present a thematic analysis and discussion of the data. Three themes emerged from the data sets which include 1. Physical Literacy as a Model of PE for All 2. Increased Value and Engagement in Physical Education 3. A Physical Literacy Disposition in Physical Education. **Conclusion:** This research makes an original contribution to the field of PL by providing more evidence, advocacy and support to make PL a more tangible concept in practice. PL has been the catalyst for a new emphasis in PE and PL disposition. It is now time to take the ball, run with it and move Primary PE forward in an era of Curriculum reform in Irish education.

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Dedication

Dedicated to my parents who have always been there for me.

“Ar scáth a chéile a mhaireann na daoine”.

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List of Abbreviations

FMS	Fundamental Movement Skills
HPE	Health and Physical Education
HRA	Health-Related Activity
IPLA	International Physical Literacy Association
IPPEA	Irish Primary Physical Education Association
MVPA	Moderate-to-Vigorous Physical Activity
NCCA	National Council for Curriculum and Assessment
PA	Physical Activity
PDST	Professional Development Service for Teachers
PE	Physical Education
PL	Physical Literacy
UNCRC	United Nations Convention on the Rights of the Child
UNESCO	United Nations Educational, Scientific, and Cultural Organization
WHO	World Health Organisation

Physical Literacy and Physical Education Programmes

CAPL	Canadian Assessment of Physical Literacy
CS4L	Canadian Sport for Life
PLAY	Physical Literacy Assessment for Youth
SHAPE	Society of Health and Physical Educators
Y-PATH	Youth Physical Activity Towards Health

Glossary of Terms

Confidence

The perception of one's abilities and sense of self in their movement experiences (Cairney et al., 2019).

Domains

The domains refer to the interrelated physical, psychological and behavioural domains (Canadian Consensus Statement, 2015) that underpin the concept of physical literacy (Durdén-Myers, 2020).

Elements / Components

The elements of physical literacy are those that are included in its definition of physical competence, motivation and confidence and knowledge and understanding. These components support participation in lifelong physical activity (Whitehead, 2019).

Fundamental Movement Skills

These are the building blocks of basic observable movement patterns, such as running and jumping, that facilitate more complex skills that children will use in physical activity and performance (Bolger et al, 2018).

Knowledge and Understanding

This comprises of a knowledge base of essential principles related to movement and performance in addition to developing an understanding of health-related activity and overall fitness (Whitehead, 2010 cited in Durdén-Myers, 2020).

Motivation

The driving force of intention and the interests of one's efforts (Deci and Ryan, 2017). These are characterised by intrinsic and extrinsic qualities and behaviours.

Movement Vocabulary

Numerous smaller movements that contribute to the totality of one's movement in a wide array of physical activity contexts and forms of movements (Whitehead, 2010).

Physical Activity

“Any bodily movement produced by skeletal muscles that requires energy expenditure” (WHO, 2020).

Physical Competence / Proficiency

“The sufficiency in movement vocabulary, movement capacities and developed movement patterns plus the deployment of these in a range of movement forms” (Whitehead, 2010: 204).

Physical Literacy

“The motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life” (Whitehead, 2019: 8).

Physical Literacy Framework

A Framework that supports the shared vision and common understanding of physical literacy and how it can be developed. This consists of PL domains and numerous elements that support progression through a staged approach (Sport Australia, 2019).

Physical Inactivity

A person who is physically inactive is one who does not meet the physical activity recommendations. This is considered as being physical inactivity. The National Physical Activity Guidelines (Department of Health and Children, HSE, 2009) recommends that this includes 60 minutes of moderate-to-vigorous physical activity (MVPA) every day for children.

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Chapter 1 Introduction

1.1 Introduction

This action research self-study endeavours to explore how I can embed physical literacy (PL) informed Physical Education (PE) in practice at primary level. PL is a complex and multifaceted concept that has gained momentum in recent years as its global presence is ever-expanding. PL is a term that spans across education, sport, coaching, health and sport science that is becoming an increasingly influential concept and generating international attention. PL is an overarching term that crosses numerous fields. While approaches may diverge between the fields of education, sport and health, there is cohesion in the education sector in relation to its purpose; PL being the gold standard of PE and empowering children to choose physical activity (PA) for life (Whitehead, 2010). Notably, there remains work to be done in clarifying what PL informed PE looks like in an educational context and in practice.

1.2 Purpose of this Action Research

The purpose of this action research self-study is to embed PL informed practice at primary level. The intention is to consider how PE can be more aligned and coherent with PL as a concept in its entirety to support high-quality PE. This research, in one way, is very much a starting point for igniting PL informed PE and leading change in my practice. This action research takes a very practical approach to PL to elevate PE to a level that has the potential to promote lifelong PA in my practice. While this action research is a journey of self-understanding, it also responds to calls for evidence-based research that can propel the concept of PL from fundamental to a more operative and tangible concept in practice.

It is important to recognise that there is a pressing need for PA levels to be increased globally. It is accepted that participation in PA is essential for a healthy lifestyle, has numerous health benefits (WHO, 2018) and has immense potential to tackle the physical inactivity crisis (Healthy Ireland, 2019; Woods et al., 2018). However, the purpose of this research focuses on PL informed PE to promote engagement in PA for life. While PL supports children to live an active and healthy lifestyle, it remains beyond the scope of this action research self-study to detail the extensive health variables related to developing PL. However, a knowledge base and understanding of health-related activity (HRA) remains pertinent.

1.3 Defining and Understanding Physical Literacy

While there are numerous definitions of PL, Whitehead's (2019) definition guides my practice in this research (c.f. Chapter 2). Throughout this research, PL is defined as the "motivation, confidence, physical competence and knowledge and understanding to value and take responsibility for engaging in physical activity for life" (Whitehead, 2019: 8). Whitehead is a leading voice in the field of PL and this definition is widely accepted and renowned on an international level as the starting point for understanding the entirety of PL as a concept. Simply put, PL involves an individual having the disposition to fully realise their PA potential and be physically active for life. PL, much like play in the Froebelian sense of the word, supports children to extend their learning through PE, PA and participation in sport.

1.4 Value-led and Value-laden Practice

Action research self-study is a self-reflective, values-led and critically reflective lens on my practice as a teacher. I remain the focus and rooted at the centre of my research. "It is basically about you studying you . . ." (Sullivan et al., 2016: 28). McNiff (2013) denotes that my values are the very starting point of my action research journey. While I knew I held values innately

as a Froebelian teacher, the research journey challenged me to refine, define and examine my core values. As a Froebelian teacher, I knew I held child-centeredness at the forefront of my values so that all children can reach the fullest of their potential. That is pivotal to me. Reflection supported me in weaving together the values that permeate and shape my Froebelian identity.

I hold the values of respect, democracy and voice as I strive to live these values in my practice. As an undergraduate of Froebel, these values resonate in and from my Froebelian teacher identity. My Froebelian identity underpins these values as “relevant and valuable touchstones” (Murray, 2018: 215). Upon intentional reflection on my values, I consider my core ontological values as respect, democracy and voice and my core epistemological value as child-centredness. My values were the catalyst for my action research and my guiding lights throughout my journey.

At the beginning of the research journey, I reflected on if and how these values were being enacted. However, a tension permeated PE wherein my articulated values and Froebelian principles were in tension with my practice. I detail this tension in my research rationale. It was from this very tension that I experienced myself as a living contradiction (Whitehead, 2018), that I took action. This led me to the field of PL so that I could live more closely to my values in practice. Prior to discussing the rationale for my action research, I detail how my personal experiences have contributed to these core values I hold.

1.5 Personal background

McDonagh et al. state that “research often begins with a hunch” (2020: 34). For me, that small hunch I had to enhance PE has led me on an enriching avenue of personal and professional learning. My research journey highlighted that my personal and professional life interweave and reflecting on my values brought this to the fore. Reflecting on my early days as a child, I began to consider the origins of my values and, in doing so, gained a clearer insight into what

values are most important to me.

I grew up an advocate of all things sports and PE in my younger days. Perhaps it is the eight-year-old boy in me that evokes strong memories of PE. I not only embarked on my action research journey but on my personal and professional journey of becoming a teacher to instil my passion for PE and PA in the children I teach. PE has brought great joy and happiness to my life. My PE teacher was also a huge influence on my love of PE. He was incredibly passionate about sport and his students making progress. I wanted to share this passion with the children in my future classroom one day. PE was, undoubtedly, one of my greatest memories from my school days.

My values are then based on my experience of growing up, my experiences in school as a physically active child and the lifetime impressions left by my family, teachers, sports coaches, teammates and my sporting inspirations. All of these people have instilled in me a love of PA and sport through their values, time and selflessness. Their values have influenced me and how I wish to influence the children I teach. These personal experiences were the springboard to my professional learning journey.

1.6 Rationale

The rationale for enhancing my practice in PE speaks volumes about my personal background, Froebelian teacher identity and love of PA. However, my core values of respect, democracy and voice were continuously negated in a performative and sports-based model of PE. So often, PE involved throwing up a ball and letting children simply play in PE. Notably, there was very little teaching happening. I questioned the extent to which PE was, indeed, educative. As an advocate of all things sport, my PE lessons were well-intentioned of providing quality PE but fell considerably short. I was emphasising a sports-driven and performance-obsessed practice. Kozera puts words to what I found difficult to articulate as a “low-organised games” (2017:

20) approach. It became apparent PE was simply not educative for children. I was encountering children that fell out of love with PE and PA. My practice in PE was suiting the sporting enthusiasts in my class but failed to connect to the lives and PL journeys of all children for their personal fulfilment. This was not evoking the happiness that PE had for me. My positive experience of PE is certainly not the story that all children will recall with warm memories. There was a clear disconnect. My joy and passion for PE also started to lessen. I was losing the connection that I once had to a subject that I had fallen in love with.

If, as the research suggests, children do not develop PL naturally, this performative model of PE confined the potential of children. This means concepts such as motivation and confidence and knowledge and understanding remained on the peripheries of PE. And so, I asked how high-quality PE can be embedded in practice and ensure PE is of high-quality and more educative for the children I teach. As aforementioned, my practice has been deeply influenced by Froebelian education. Owing to the emphasis that Froebelian pedagogy places on self-initiated and self-directed learning (Bruce, 2012), I recognised that PL has the potential to address the perceived gap of learning prevalent in my PE lessons. PL is also pivotal in the delivery of high-quality PE in moving the focus from a sports-based model to a model that promotes participation in lifelong PA. Thus, this action research hones in on PL informed PE and how I can make PL informed practice a reality of my PE lessons.

Upon reflecting on my core values and experiencing myself as a living contradiction, it was my intention to reconnect my values to my practice. I hoped that this endeavour would be an arbiter of change in what PL is and how PL is embedded in my practice. If PL supports positive and lifelong behaviours then this will open a potent avenue for supporting lifelong PA. In a Froebelian sense (Liebschner, 1992), this underpins the importance of understanding that ‘what’ is taught in addition to ‘how’ the time afforded to PE is spent is of great professional significance. I will now outline the professional significance of this action research in the next

section.

1.7 Professional Significance

While the value of PA is clear, there is a global epidemic of physical inactivity (Designed to Move, Nike et al., 2012). A physical inactivity crisis is also prevalent in Ireland (Woods et al., 2010, Tremblay, 2014). The Children's Sport Participation and Physical Activity (CSPPA) (Woods et al., 2018) study reinforces this as only 13% of children on the island of Ireland, aged between ten and eighteen years old, are meeting the 60 minutes of moderate-to-vigorous PA (MVPA) per day. While 19% of Irish primary school children were meeting the PA guidelines over a decade ago (Woods et al., 2010), more recent research now indicates this is now as low as 17% (Woods et al., 2018). Belton et al. (2019) extend on the starkness of these figures by highlighting that Irish youth are falling short in all PL domains with 56% of children reaching optimal levels of cardiovascular fitness and approximately 50% of children reaching optimal levels of self-efficacy. Belton et al. (2022), more recently, reinforce that these concerns remain prevalent across the island of Ireland.

Ireland continues to provide an underwhelming sixty minutes of PE per week (NCCA, 1999a). This significantly confines the potential of PE. Currently, there is no reference to PL in the Irish PE Curriculum (NCCA, 1999b) although perhaps it may be argued that its principles are implicit in the content and learning outcomes. Failing to bring an agreed position on the concept has meant that PL has been developed, at best, sporadically in Irish education and without the benefit of cross-sectoral strategic planning (Belton et al., 2022). This is compounded by curriculum overload (INTO, 2015), time and accountability measures. How PL is played out in Irish primary schools is very much imperceptible. The chasm between PL as a concept and its tangible application in practice in Irish primary education still exists. Whether or not PL informs the content of the *Draft Primary Curriculum Framework* (2020) remains to be seen.

There has been an increase in the time allocated to PE in the *Draft Primary Curriculum Framework* (2020) to 150+ minutes of PE per week. The Framework promotes fitness and well-being in schools and includes the key competencies of “Wellbeing” and “Learning to be a Learner” (NCCA, 2020: 7). While the increased time allocated to PE is to be welcomed, these competencies are key in the delivery of quality PE that is informed by PL and reflects its place in the curriculum. Moreover, programmes such as *Move Well, Move Often* (PDST, 2017), *Action for Life* (primary PL programme) and *Y-PATH* (post-primary PL Programme) are encouraging signs. These programmes serve PL informed PE well and may be timely models for the implementation of a PE Curriculum that provides a pathway for PL development. PL would then be continuing to gain the momentum it so richly deserves. While much of the existing research to date has been a top-down approach (Belton, 2022), this action research reflects my journey of embedding PL as a tangible concept in my practice. Indeed, this action research provides more evidence, advocacy and support to make PL a tangible concept in practice.

There are numerous key areas wherein this action research makes an original contribution to its field. There is a dearth of data researching PL at primary level. Moreover, there is a lacuna of data on PL in an Irish educational context. As aforementioned, existing research hones in on fundamental movement skill (FMS) proficiency and falls considerably short of taking into account the intricacies and complexities of PL as a concept in its entirety. There is also limited empirical data that determines how PL can support progression in PE and be assessed purposely in PE. While there is a multitude of research on what PL is as a concept, research is critically lacking clarity and consensus on how PL can be embedded in practice as a tangible concept. This research then addresses that gap by providing empirical research and tangible interventions.

1.8 Overview and Organisation

This action research self-study tells my story of my professional learning journey in its five chapters. An overview of how each chapter is presented now follows.

Chapter 1 discusses the purpose of the action research self-study, provides a compelling rationale and outlines the professional significance of PL informed PE.

Chapter 2 is a critical review of the literature that considers how PL is embedded in practice and the lacuna of research that emerges. I articulate a clear definition of PL and explore national and international contexts. I also detail the centrality of assessment as a key driver of PE. These theoretical insights have also informed my action research journey and further legitimise why PL is a worthwhile endeavour.

Chapter 3 details and justifies the research methodology in the implementation of the action research. Qualitative research methods guide the research process. The intervention included three key strategies to embed PL informed practice and these strategies are further detailed. The validity and reliability of the research are discussed. I also articulate the centrality of the ethical status of this action research.

Chapter 4 presents the analysis and discussion of data. The extent to which the data is commensurate to or refutes existing research is considered as part of the data analysis with a view to contributing to the knowledge base. Three themes emerged from the data set. The three themes include:

1. Physical Literacy as a Model of PE for All
2. Increased Value and Engagement in Physical Education
3. A Physical Literacy Disposition in Physical Education

Chapter 5 concludes this action research by considering the implications for educational improvement, the limitations of the action research and the recommendations for future research. The loose threads are woven together in the final conclusions and provide scope for

future research endeavours.

1.9 Chapter Summary

In this chapter, I have provided an outline of the action research self-study journey. I have defined my educational values. These are interwoven throughout as key contributors to the research and commensurate to my Froebelian teacher identity. I am the focal point of my self-study. I hope that my values are clear as these have been at the forefront of my actions. An overview of the research was outlined for the purposes of signposting. This chapter also provides a clear rationale and purpose for my research. This action research self-study journey is very much grounded in my values, practice and reflection in my endeavour to enhance PE and support the shared vision of all PL advocates; PL as the gold standard of PE and empower children to choose PA for life (Whitehead, 2010). Now, in Chapter 2 ‘Literature Review’, I present a critical review of the literature.

Chapter 2 Literature Review

2.1 Introduction

In this thematic review of the pertinent literature, I begin by outlining the Physical Literacy Cycle that frames this action research self-study that considers how I can embed PL informed practice at primary level. I then consider its definitions and philosophies prior to recognising the centrality of the physical, psychological and behavioural domains. I discuss the considerable promise of embedding PL in PE as an extension of good pedagogical practice. I outline how a call for the assessment of PL is growing as the mapping of PL as a lifelong journey. Finally, I consider PL in an Irish educational context and contrast this to leading practices internationally, evidenced by international policies and curriculum frameworks. Collectively, this thematic and critical review of the pertinent literature affords an essential knowledge base and invaluable insights into the action research self-study.

2.2 The Physical Literacy Cycle

The action research self-study is framed by the Physical Literacy Cycle (c.f. Figure 1.2) which is an extension of the work of Kozera (2017) who builds on Taplin's (2013) model (c.f. figure 1.1).

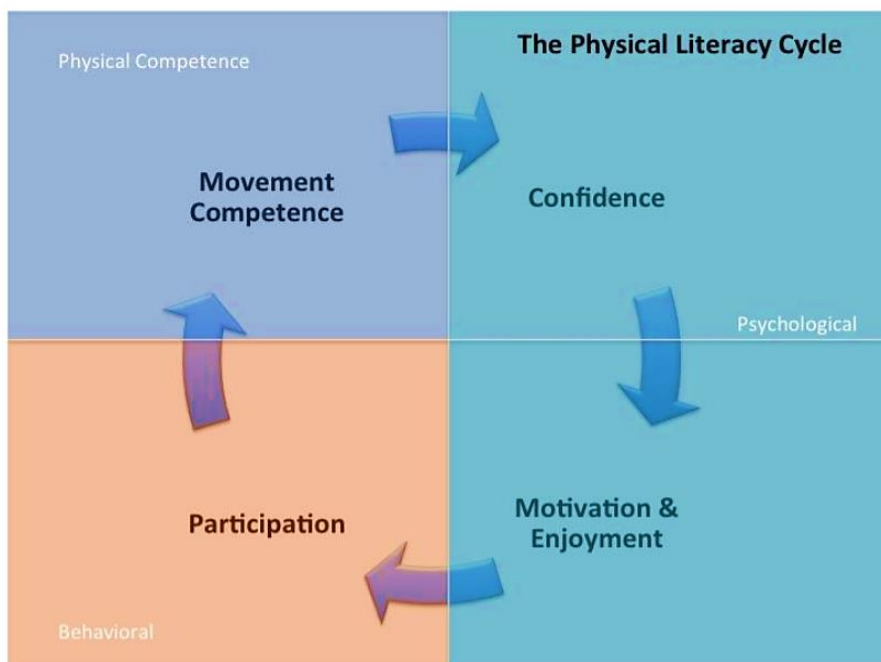


Figure 1.1 The Physical Literacy Cycle (Taplin, 2013)

Source: Kozera, 2017

The PL Cycle is an extension of the domains of PL as outlined by Whitehead (2019) and the IPLA (2017) (c.f. figure 1.2). This framework considers the domains of PL in equal magnitude. This is a continuous cycle that recognises the interrelated nature of PL. All components are key to prosper in if children are to progress on their PL journey and engage in PA for life. All of the components are as important to support personal fulfilment and active participation on a lifelong PL journey. It is how these components interweave that supports progression (or the lack of). The domains are greatly interconnected and the potential to develop one domain may lead to another being developed on account of the interrelated nature of the concept (Durdin-Myers, 2020). It is important to recognise, however, that the cycle is not always straightforward (Whitehead, 2010). The PL Cycle does not have a defined starting point, endpoint nor moves onward in a linear way. The more movement experiences children have, however, the more operative the PL Cycle becomes (Kozera, 2017).

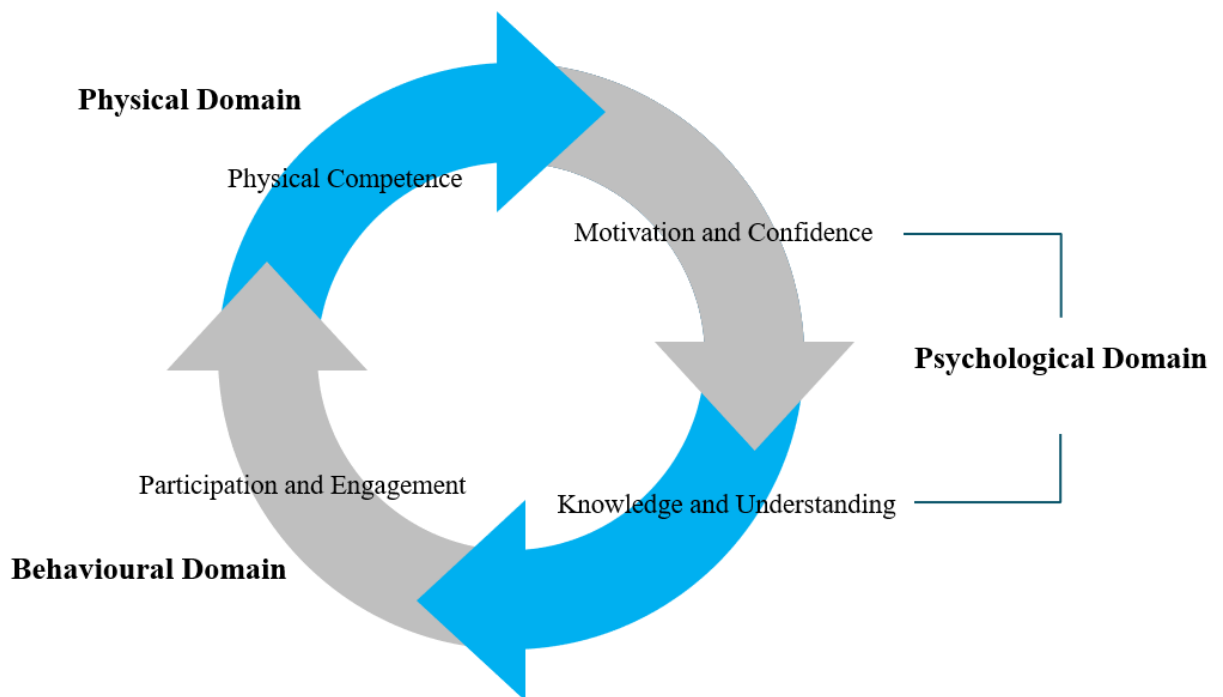


Figure 1.2 Physical Literacy Cycle

Adapted from Kozera, 2017 and designed for the purpose of this research to include the PL Domains and Components pertinent to this research. The cyclical and continuous cycle highlights the integrated nature of the components.

I have stated upfront the values of respect, democracy and voice that frame this action research. The Physical Literacy Cycle frames learning as an active and cyclical process. In this process, children are leading their learning to new areas of discovery. This underpins my Froebelian approach in practice in the role of teacher as facilitator (Tovey, 2020), one wherein I value democracy and respect the potential and voice of children to lead their learning to these new areas of discovery. The Physical Literacy Cycle is then key in the orchestration of a democratic, respectful and voiceful approach to PL informed PE and commensurate to my core values. From this point, I will review the relevant literature in relation to PL and PE.

2.3 Defining Physical Literacy

PL is a concept of deep and rich complexities and theoretical and philosophical insights (Whitehead, 2010). While I do not explore its origins in depth, PL has a strong philosophical underpinning, set out by three key philosophical viewpoints (Durdan-Myers et al., 2018). These include monism, existentialism and phenomenology (Whitehead, 2010).

PL has emerged as a concept that spans across sport, education and health. A multiplicity of definitions in research reflect PL as the language of movement (Robinson et al., 2018), knowing how and why to move in numerous ways (Clohessy, 2017), the tools to be physically active (Stoddart, 2017) and the foundation for lifelong participation in PA (CS4L, 2014). To contribute further to the complexities of this discussion, PL is not stated in the Irish Primary PE Curriculum (NCCA, 1999b). Furthermore, while there is a lacuna of research on developing PL in practice, there is a dearth of literature in relation to embedding PL in PE both at primary level and in an Irish educational context.

The concept of PL, to put it simply, is the gold standard, outcome and vision of PE to promote engagement in PA for life (Whitehead, 2010). What does this vision include? Firstly, PL is a multi-faceted construct (Cairney et al., 2019) that includes many physical, psychological, social and cognitive components (Edwards et al. 2018). However, the multitude of definitions complicates the realities of PL in practice. I primarily draw on the work of Whitehead (2010, 2019), a leading scholar in the field and at the forefront of refining the concept, to define PL. Whitehead characterises PL as a holistic concept and as the “motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for” (2019: 8) lifelong PA. This definition is derived from and positioned at the core of the literature and action research.

Numerous definitions of PL include physical competence, confidence and motivation, knowledge and understanding and behavioural components (Whitehead, 2010;

ParticipACTION et al., 2015; PHE Canada, 2010a). Whitehead's (2019) definition of PL is most pertinent to this action research as it advocates a holistic and lived experience of PL wherein the conceptual parameters of PL centre on a lifelong learning process. Numerous definitions are shaped by Whitehead's (2019) characterisation of PL and extended from this definition. For example, Canadian Sport for Life (2015) and Sport New Zealand (2015) have definitions commensurate to this and, in an Irish context, the PDST Primary PE extend on the components of this definition in the *Move Well, Move Often* programme that supports the development of PL at primary level (c.f. Appendix N). While the semantics of PL often impedes the potential pathway for its advancement as a tangible concept (Hyndman and Pill, 2018 cited in Shortt, 2019), its definition can be considered just the very tip of the iceberg (Whitehead, 2019). In the next section, I detail the domains and components related to PL as a concept.

2.4 Physical Literacy Domains

PL has three domains that include the physical domain, psychological domain (affective and cognitive sub-domains) and behavioural domain (Canadian Consensus Statement, 2015). The physical domain relates to movement skills, the psychological domain to affective facets such as motivation and confidence and cognitive facets such as knowledge and understanding while the behavioural domain relates to engagement and participation. This differs from Whitehead's (2019) PL domains of the physical, affective and cognitive domains. Despite these disparities, the physical domain is often endorsed as the hub of PL with interrelated psychological and behavioural components (Kozera, 2017). However, the concept of PL advocates for the domains to be developed in an integrated way to promote lifelong engagement in PA (Whitehead, 2010; Durden-Myers et al., 2018). This underpins the importance of providing

conceptual clarity to the definition of PL. All of the domains will now be further explored in more detail.

2.4.1 Physical Domain

The physical domain primarily comprises of physical competence. This is key to developing a wide array of movement patterns. Whitehead (2019) articulates the importance of these physical competencies being developed in numerous contexts to support the likelihood of lifelong PA. The quality of physical competence develops as children begin to apply their movement vocabulary to their movement memory through engaging in ample movement experiences. These are then recalled and performed with greater efficiency and accuracy (Maude, 2010 cited in Durden-Myers, 2020).

2.4.2 Psychological Domain

The psychological domain comprises of the affective and cognitive domains.

Cognitive Domain

The cognitive domain is related to developing a knowledge base and understanding of the principles related to movement, performance, health and overall fitness (Whitehead, 2010). This knowledge base leads to children becoming responsible for their PL progression and, in turn, lifelong PA (Whitehead, 2010). The understanding of the value of movement is best supported in the context of developing movement patterns (Durden-Myers, 2020). It remains an important consideration, however, not to lose sight of understanding how, why, when and for what purpose we move in place of understanding the biomechanics of sports science.

Affective Domain

The affective domain is largely associated with motivation, enjoyment and confidence while also including numerous other concepts (Durden-Myers, 2020). As a multidimensional construct, it is beyond the scope of the literature review to consider and relay these as distinct variables. Rather, I position these variables in the “energy, direction, persistence and

equifinality’’ of the ‘‘activation and intention’’ (Ryan and Deci, 2000: 69) of motivation and confidence, these being the two key components included in the definition of PL. Motivation and confidence are related to enthusiasm, enjoyment and one’s self-perception of engaging in PA for life (Cairney et al., 2019). This is key to upholding a Froebelian approach and springboard self-initiated and self-directed activity (Bruce, 2011a). While children’s motivation is largely driven by intrinsic qualities (Owen et al., 2014 cited in Peers, 2020), it is also important to recognise that extrinsic qualities are also significant as children come to value the (extrinsic) physical and health benefits of PA (Peers, 2020).

2.4.3 Behavioural Domain

The behavioural domain includes components such as participation, engagement and interactions that support PA for life. This involves a personal responsibility to choose PA as a part of one’s lifestyle choice. The behavioural domain has been acknowledged in wider international research and is an extension of the Canadian Consensus Statement (2015). In the next section, I consider how a PL informed approach to PE has pedagogical significance as it endeavours to support all domains of PL in an integrated way.

2.5 Physical Literacy Informed Physical Education

First and foremost, it is important to recognise that PL, PA and PE are interrelated (PHE Canada, 2010b). PE is an opportune place to develop PL proficiency (Whitehead, 2010). Quality PE pedagogy is the springboard to lifelong PA and affords children opportune potential to develop their PL (Sprake and Walker, 2013 cited in Shortt, 2019). PE and PL are two separate concepts, however. PE provides the pathway through which PL can be developed and supported (Essiet et al., 2021). PL is then the gold standard and outcome of PE (Whitehead, 2010) and this is reflected internationally in the USA, Canada and Australia wherein PL is promoted in PE (Roetert and Couturier-MacDonald, 2015). This point is of great significance

as it is a reminder not to regard PL as being an outcome in and of itself. “Physical literacy status” (Shearer et al., 2018: 243), reaching PL or being physical literate are neither goals that are obtainable nor accomplished. Rather, PL is a process in and of PE that supports participation in lifelong PA.

2.6 Physical Literacy Strategies in Practice

How can such a complex concept be fashioned to enable children to progress on their PL journey? There is a clear absence of research relating to embedding the concept of PL in PE in practice through tangible strategies and evidence-based outcomes. While it is difficult to envisage in its entirety, I call on the available literature to highlight what PL informed PE potentially looks like in practice. To start with, it is essential that teachers move away from what Kozera denotes as a “low organised games” (2017: 20) approach in a competitive, sports-driven and performance-obsessed model of PE (Sullivan, 2021). More importantly, research underpins that the role of teachers is pivotal in developing children’s PL (Essiet et al., 2021) through numerous strategies. Sport Ireland (n.d.) identify key principles of a broad and balanced approach to PL in practice that include person-centred, inclusive, positive and challenging qualities wherein children experience personal achievements and celebrate successes. This is reinforced by Durden-Myers et al. who underpin seven key principles of embedding PL in practice:

1. The individual
2. Promoting motivation
3. Enhancing confidence
4. Developing physical competence
5. Developing knowledge and understanding
6. Devolving responsibility

7. Using feedback/charting progress as a motivational tool

(2018: 10).

Looking at these key principles in more depth, the centrality of the PL components is clear. Only by implementing content and strategies that are aligned with its definition can PL be developed in practice. Thus, PE lessons need to be adaptable and challenging to different learners (Durden-Myers et al., 2018) and appropriate to the needs of all. This highlights the key principle that PL is a unique learning journey (Whitehead, 2010). If PL is individualised and unique to each child's experience, progress can be made and children can begin to take more responsibility for their learning in PE and for their lifelong PA journey.

However, I question these listed principles as a definitive guide to embedding PL in practice. In the next section, consideration will be given to the available literature that considers the qualities embedded in meaningful PE (Beni et al., 2021). The characteristics of meaningful PE can potentially open the space necessary to initiate a comprehensive and tangible concept of PL in practice. The insights derived from this action research self-study also inform my thinking on how to embed PL in practice.

2.7 Meaningful Physical Education Develops Physical Literacy

PE is the curricular space that provides a pivotal opportunity to shape PL positively (Shortt, 2019; Essiet et al., 2021). The concept of PL can be used as a guide to inform the values, rationale, purpose and direction of PE and augment its standing across curricula (Durden-Myers, 2020). PL in practice can then be considered as an extension of the content and pedagogy delivered in PE.

Research has called for clearer connections to ascertain the why, what and how of PE to be physically educative (Beni et al., 2018). These calls are supported by Ennis (2017) who advocates for teachers to afford greater magnitude to PL so that PE remains physically

educative and leads to coherent and meaningful PE experiences. Ennis also underpins the importance of “democratic, autonomous and supported physical education experiences for children” (2017: 115), perpetuating sustained importance to children engaging in PL informed PE.

There is an emerging body of evidence that underpins what children find meaningful and why in PE (Beni et al., 2021). While research has focused on those key areas, there is scant research on how to promote physically educative experiences that support PL proficiency and a PL journey. If PL is to become a process of the PE Curriculum, it is worthwhile considering how teachers can enact a coherent pedagogical approach. Given that there is a base of empirical evidence related to the ‘what’ and ‘why’ of PE experiences, I believe this gives rise to the centrality of ‘how’ PL can be embedded in PE. I draw on literature that establishes key principles of meaningful PE to support the application of PL in practice. Overall, the meaningful PE literature offers connecting points to the vision of PL.

Silverman and Mercier (2015) outline numerous key principles that underpin PL informed PE such as time, practice, content, active engagement and supporting movement capabilities. Most pertinent to this action research self-study, however, is the work of Beni et al. (2021) which relates to an Irish educational context. Beni et al. (2021) underpin key principles of meaningful PE that include positive social interactions, physical competence, fun and enjoyment, challenge and experiences that are personally relevant. These features of meaningful PE strengthen the aforementioned principles of PL in practice by Durden-Myers et al. (2018). I further extend on this work as Beni et al. (2021) articulate that, in many ways, meaningful PE can be simply considered as good pedagogical practice. It then also holds true to consider meaningful PE commensurate to PL as key principles interweave and hold tenure in high-quality PE lessons. As Beni et al. (2021) so crucially remind us, the pedagogical flexibility of meaningful PE should be considered a strength. The adaptability of meaningful PE then has pedagogical

relevance to embed PL informed PE in practice. In the next section, I consider the aforementioned literature to underpin PL as an integrated concept for practice.

2.8 Physical Literacy as an Integrated and Flexible Concept

I have argued above that the components of meaningful PE afford a fruitful avenue, if not a starting point, to embed PL in PE. These components certainly play an important role to inform pedagogical discussion. Notwithstanding the strong advocacy for PL, there is a paucity of research available relating to PL and, consequently, there is little known about what embedding these components as an extension of PL involves, the skills needed to do so and teachers' experiences of it. As current research suggests, it is valuable to consider high-quality components of PE as an integrated alignment (Beni et al., 2018). The strategies to embed PL informed PE in practice (c.f. Chapter 3) offer a flexible and integrated approach in place of a "step-by-step guide" (Beni et al., 2018: 612) to rigidly follow. This also reinforces my Froebelian approach as "Froebelian practice cannot be standardised into a method" (Bruce, 2012: 159) and calls for individualised and personalised learning. Current literature calls for these intentional pedagogical strategies to put the spotlight on PL in practice (IPPEA, 2010) as the flexibility of the strategies becomes a strength in an integrated way. Research then supports the considerable promise of PL as an integrated concept to deliver high-quality PE. In the next section, I consider the assessment of PL and if, how and for what purpose the concept may be assessed.

2.9 Physical Literacy Assessment

As PL is an ever-popular concept, the need to assess its progress has increased and exploring how to measure PL has been the logical and important next step. However, there is a dearth of research that determines how PL may best be developed and assessed in PE (Robinson and

Randall, 2017). PL is not to be mistaken or misunderstood and related to the term “mastery” just as Bolger et al. (2018) criticise FMS development that is so often considered in terms of “mastery”. What are teachers at primary level to understand by this fixation on the mastery of skills in PE? Bolger et al. (2018: 23) crucially remind us that mastery is defined as “comprehensive knowledge or skill in a particular subject or activity” (definition in Oxford University Press, 2018). It is important that Irish primary school teachers recognise, however, the inadequacy of the term as there is no consensus nor quantifiable measurement of PL, much like FMS (Bolger et al., 2018), that can be considered as ‘comprehensive’. If assessment is, as the PE Curriculum suggests, a key part of the PE puzzle to inform, understand, plan, consolidate and “provide a comprehensive picture of the holistic development of the child” (NCCA, 1999: 68), then this research makes a significant contribution to prioritising the assessment of PL in its entirety and not in terms of a defined mastery of (physical) skills.

The multi-faceted construct of PL, however, is difficult to assess. PL necessitates going beyond measuring the simple attainment of skills (Giblin et al., 2014 cited in Green et al., 2018). PL enthusiasts (Robinson and Randall, 2017; Lundvall, 2015) discuss the tension that emerges in the assessment of PL. Lundvall positions efforts to assess PL in terms of mastery as misguided and questionable. This critique of PL assessment certainly questions the legitimacy and possibilities of assessing PL components. Robinson and Randall’s (2017) critique of the assessment of PL put forward that by quantifying PL in PE, the holistic concept of PL is lost. Indeed, Edwards et al. (2017) reinforce that very point as quantitative and standardised measures of PL do not align with the contemporary concept. This extends on Whitehead’s definition of PL which is at the forefront of this action research as PL is not a concept to be mastered or an endpoint but a lifelong process. It is important that the assessment of PL reflects this journey that, as Whitehead intends, resonates in PL as a disposition that everyone possesses.

Whitehead (2019) advocates for the “charting” of a PL journey and the recording of progress in place of the assessment of PL directly. This is commensurate to PL as a process as Whitehead (2019) reinforces the point that “physical literacy status” (Shearer et al., 2018: 243) is not simply attained in assessment and therefore an individual is considered to be physically literate. The IPLA (2017) also supports the charting of progress on a PL journey in place of assessment and measurement. Amid the conceptual and definition-based discussions on PL, the intention of this research is to consider how PL informed PE is embedded in practice. Mapping (or ‘charting’) our PL journeys to align more fully to the holistic construct of PL and the ontology and epistemology of PL, as defined by Whitehead (2019), is a key part of that process. In the next section, I will consider current assessment practices and how, if at all, practice relates to the conceptual underpinning of PL.

2.9.1 Current Assessments of Physical Literacy

PL current assessments include *PLAY (Physical Literacy Assessment for Youth)* (CS4L, 2012), an assessment tool for school contexts, *Passport for Life* (PHE Canada, 2013), a formative assessment tool, *Physical Literacy Observation Tool (PLOT)* (Clark et al., 2017) and *CAPL (Canadian Assessment of Physical Literacy)* (Longmuir et al., 2015), a quantifiable assessment of a multitude of skills and qualities that characterise PL. *SHAPE America* (2015), for example, likens children’s PL progress to milestones. However, the multi-faceted construct of PL means it is truly difficult to measure the concept holistically through any of the assessments aforementioned (Edwards et al., 2018). I have not exhausted efforts to elaborate on these assessments as all domains are not represented or represented equally. If all domains of PL are considered, then the assessment of PL is more conceptually aligned with its definition. The developmental milestones in the above assessments are largely contentious in PL literature as Whitehead (2013) rails against normative standards and objective learning outcomes. For

example, there are no evidence-based curricular milestones in areas such as motivation or valuing movement. PL emphasises highly personalised, continuous and qualitative observational assessment and the mapping of a PL journey wherein there are no absolute standards nor developmental milestones.

While these endeavours are certainly praiseworthy in their approach, the complexities at play are apparent. The quantifiable assessment of PL used against benchmarks negates the individual nature of mapping progress on a PL journey (Green et al., 2018). There also remains an overemphasis on individual domains in practice. These PL assessments are often used in isolation which results in a disproportionate emphasis on measuring physical competence (Green et al., 2018). This is perhaps a result of PL necessitating ample progress to be evidenced in a landscape that puts assessment at the forefront of curriculum. These PL assessments are time-consuming and perhaps unrealistic for a school context (Shortt, 2019). These assessments and measurements of PL are also linear in their approach (Green et al., 2018). What is clear is that the assessment of PL is fading in discord from what Whitehead (2019) intended in its holistic form. Significant work remains to be done for mapping PL effectively and purposely (Green et al., 2018). I then advocate for the focus of PL assessment to be redirected to the true concept of PL that calls to arms the charting of proficiencies and progress on a PL journey that is ever-changing and negates the linearity of the current measurements in play. In the next section, I consider the viability and criticisms of PL in its potential to reinvigorate PE.

2.10 The Viability of Physical Literacy

As PL continues to gain momentum, so too have numerous critical positions. There is a critique of PL that implies PL is, simply, nothing new (Lounsbury and McKenzie, 2015). I was critically reminded of one of Shakespeare's most renowned lines from *Romeo and Juliet* "what's in a name? That which we call a rose by any other name would smell as sweet" (cited in Lounsbury

and McKenzie, 2015). If PE is the rose, then perhaps PL is potentially a rose by another name and, at best, a synonym of PE. This echoes the question as to whether PL is only a fad (Robert and Jefferies, 2019) and, more significantly, gives voice to what Lounsbery and McKenzie criticise as “. . . there are more important things for the profession to focus its energy on . . . There are real problems that the profession needs to address” (2015: 4). Strong words, indeed, but important words, too. Therein the very critique of PL as a concept lies its true potential: PL empowering children to choose PA for life (Whitehead, 2010) and the potential to address the very real and overarching concern of PA levels and a physical inactivity crisis. As Whitehead (2019) so crucially suggests, emphasising all domains of PL will better equip children to engage in PA for life.

Moreover, Lounsbery and McKenzie (2015) argue that PL negates the ‘physical’ aspects of PE and favours more conceptual outcomes related to the psychological and behavioural domains. The privileging of these domains has evolved as PE adopts the “trendy literacy label” (Lounsbery and McKenzie, 2015: 5). PL informed PE has then been slammed as a medley of “anything goes” (Quennerstedt et al., 2021: 12) as long as it encapsulates movement. This is harmful to PL as a concept as it is highlighting how the promises of PL and PE in practice are of great disconnect. However, I rail against this idea that PL is a causal leap of faith as if PL elevates PE, supports teachers to teach PE and brings PE in line with numerous other literacies, this should spark the potential of PL as something pivotal to the field. PL is the action to reinvigorate PE. The wide array of literature to date highlights that prioritising PL as our gold standard can potentially enrich PE and support lifelong PA.

Finally, I consider PL and assessment. On one end, there appears to be a “mandated enjoyment” (Quennerstedt et al., 2021: 12) accompanying the idea of PL. Shearer et al. (2018) even go as far as arguing that the concept of PL will become lost in assessment and become nothing more than PA if measured. If PL is valuable in its own right, it can then be considered

as a process that does not need to be measured but lived and enjoyed. Conversely, there are calls for more evidence-based practice in PE that promotes accountability (Cairney et al., 2019; Quennerstedt et al., 2021). If PL is the outcome of PE, then PL affords important accountability that can and perhaps should be measured (Cairney et al., 2019). These insights and current critiques underpin the complexities at play. While a critical reflection of the literature may not provide clear answers, it is important to recognise the tension and emerging complexities in the field that need to be clarified if PL is to be a viable and tangible concept in practice. In the next section, I will explore PL in an Irish educational context prior to detailing leading international practices and policy.

2.11 Physical Literacy: Irish and International Contexts

2.11.1 The Current Irish Educational Landscape

Ireland continues to provide an underwhelming sixty minutes of PE per week (NCCA, 1999). This insufficient exposure will continue to confine the potential of PE to develop PL in practice and policy (Bolger, 2018). PE is neither being afforded ample time nor adequate space in an era of curriculum overload (INTO, 2015). Curricular demands are vying for curriculum space. This magnifies the extent of curriculum overload today and, inevitably, underpins a curriculum that holds PE as a captive of time and space. The key implications of this are twofold. If children are not reaching their potential in PE, their PL journey will be impeded. If children are not progressing on their PL journey, how can they reach their potential ability in PE?

A much-admired theory in Gladwell's (2011) *Outliers: The Story of Success* considers expending ten thousand hours to sharpen and hone proficient skills. Much of this time, in an Irish educational context, is placed on the physical domain and overemphasising FMS proficiency in place of PL as a concept. FMS are a key part of PL developed in, through and as an outcome of PE. FMS are goal-directed movement patterns that facilitate engagement in

PA and are needed to develop a complexity of movement skills that facilitate lifelong participation in PA (Bolger et al., 2018). However, teachers can sometimes equate or misinterpret FMS development in PE with PL (Robinson et al. 2018). The conflation of FMS as PL then undermines the entirety of what PL entails. The disparate measurement of PL in this respect potentially dilutes its value (Edwards et al., 2018).

Evidence-based research supports the idea that affording children ample opportunity and time in PE supports PL proficiency (Bolger et al., 2018). *The Draft Primary Curriculum Framework* (NCCA, 2020) goes in some way to affording PL that time and space. Looking to a future-focused vision of PE in the new Health and Well-Being facet of the *Draft Primary Curriculum Framework* (NCCA, 2020), the intention is to increase the time allocated to PE to 150+ minutes per week. If the new Irish PE Framework looks to be underpinned by PL, it can more than justify its value and place in the curriculum. This action research self-study then goes in some way to justifying and redefining its purpose when PE is underpinned by PL. Moreover, rich learning opportunities, in a Froebelian sense, demand sufficient time and space (Hoskins and Smedley, 2019) and PE will, in turn, be replete with time and space to support children on their PL journey.

There is certainly a lacuna of data researching PL informed PE in an Irish educational context and its entirety as a concept. The centrality of PL informed PE at primary level has been advocated in numerous countries internationally and this will now be outlined.

2.11.2 The International Context

It is time to learn from our international counterparts to embed PL informed PE in practice. There is a stark contrast in the time, space and status afforded to PL and PE in an Irish and international context. For example, in the US, 150 minutes of PE per week is recommended as a minimum (*SHAPE America*, 2015) and approximately 109 minutes of PE is afforded per

week in European schools (EACE, 2013). Perhaps it is questionable then if the increased time allocated to PE in the *Draft Primary Curriculum Framework* (NCCA, 2020) is sufficient.

PL continues to gain momentum internationally despite the complexities at play and little international consensus on definitions (Edwards et al. 2017 cited in Essiet et al., 2021). Countries such as Canada, The United States and Wales are implementing PL informed PE in parallel to national sport and PA initiatives (Giblin et al., 2014 cited in Green et al., 2018). In doing so, schools are embedding PL as a model of PE as PL becomes the gold standard of PE reform. In Canada, for example, many provinces hone in on “achieving physical literacy” (Saskatchewan Ministry of Education, 2010) (Stoddart, 2017). The *Canadian Sport 4 Life (CS4L)* Programme speaks volumes about the progression and commitment to PL in Canada. For example, in Saskatchewan, the PE Curriculum defines PL and details how to achieve the PL components as an extension of high-quality PE. The PE Curriculum in the UK is underpinned by PL (Sprake and Walker, 2015 cited in Brown and Whittle, 2021). The Australian Physical Literacy Framework (Sport Australia, 2019) affords a coherent curriculum framework for PL as an extension of its definition (c.f. Appendix M). Sport Australia (2019) have mapped PL as a continuum and the goal of all PE programmes. Strides have also been made in the US wherein PL is a clear outcome of national curricula (*SHAPE America*, 2015). Many of the countries aforementioned have used national PA initiatives to springboard PL informed PE in school contexts (*SHAPE America*, 2015). Perhaps it is then essential that we ask the question: What can we learn from our international counterparts in relation to PL and delivering high-quality PE?

2.11.3 Physical Literacy for Policy and Practice

Policy, or the lack of, affords a clear insight into the complexities that exist to springboard PL into action. Irish primary teachers continue to engage in their interpretations of high-quality PE

(Bolger et al., 2018) in curriculum, pedagogy and assessment short of the guiding policies. There needs to be greater clarity of purpose for teachers and children alike. Presently, it is unclear if children are developing their PL proficiencies as an extension of the PE Curricular outcomes. There continues to be an outdated absence of guidance to embed PL in the PE Curriculum (Barnett et al., 2019 cited in Essiet et al., 2021). Guidance largely remains on the peripheries of policy and in the domain of academia.

How PL is defined, structured and included in the curriculum has implications for policy and practice (Essiet et al., 2021). There is a lack of consensus, direction and support on how PL can be embedded as a tangible concept in the sphere of the Irish PE Curriculum. Currently, the centrality of its holistic concept is lost. Macnamara et al. (2009) strongly criticise this and suggest this is the equivalent of promoting literacy through forming a reading club but short of establishing sufficient reading skills to essentially read. This is a striking comparison. PL should be positioned as an equally essential literacy and PE considered an esteemed subject area (Durdin-Myers, 2020). The domains and elements of PL need to be extended from policy to practice.

It is fundamental that PL is appropriately integrated in or embedded parallel to the PE Curriculum (Brown and Whittle, 2021). The Australian Physical Literacy Framework (c.f. Appendix M) provides a very coherent framework for PL and is perhaps a leading model to learn from. This framework augments a contemporary and future-focused vision of PE and complements the existing PE strands so that children develop the physical competence, motivation and confidence and knowledge and understanding to value PA for life. The work of teachers in PE already includes many of these components in practice. Developing policy and PL through a framework does not take away from the current curriculum but provides a “different take” (Brown and Whittle, 2021: 192) on high-quality PE that is informed by PL and broadens the PE landscape in the Australian context (Brown and Whittle, 2021). Brown

and Whittle draw on the work of Wright to articulate that these components interweave with the “educative purpose” (2014 cited in Brown and Whittle, 2021: 190) of PE in supporting teachers to deliver high-quality PE lessons. While this opens a space for discussion, it also underpins the lack of progress in an Irish educational context in relation to policy development and moving PE forward.

2.12 Summary and Conclusion

In this thematic and critical review of the literature, I discussed the complexities of PL as a concept, its viability in PE and how PL can potentially be embedded as a more tangible concept in practice. I also discussed PL in an Irish educational context and compared this to leading practices internationally.

I can conclude from the literature review that if PL is a key piece of the PE puzzle, then it demands much consideration. The literature highlights that it is now more timely than ever to progress PL to a national stage and provide a potent avenue for children to develop PL to the fullest of their potential. However, an understanding and appreciation of its philosophical underpinnings is only a step in the right direction. Moreover, there is a lacuna of data relating to PL informed practice at primary level currently available. Overall, the literature highlights the inadequacy of its development in an Irish educational context, its scant application in practice and opens up a treasure trove of questions for further mining.. The challenge is then to demonstrate what PL informed PE looks like in practice without being overly prescriptive as the concept certainly has great potential to grow in many directions. What follows next in Chapter 3 ‘Methodology’ is a discussion and justification of the research methods, research instruments and ethical considerations that guide the implementation of this research.

Chapter 3 Methodology

3.1 Introduction

In this chapter, I justify the action research self-study paradigm as I endeavour to generate living educational theory (Whitehead, 2018). I also consider if the action research self-study and living theory approach are commensurate with my epistemological and ontological values. I outline the pertinence of the qualitative research methodology that guided the implementation of this research to explore how I can embed PL informed practice in PE. I reinforce the trustworthiness of this action research self-study by drawing on the key principles of validity and reliability. Finally, the ethical status and ethical considerations of this action research are considered.

3.2 Research Paradigm

I decided upon the research methodology of action research self-study in considering, reflecting on and negotiating “how I can improve my practice” (Whitehead, 2018: 1) (c.f. Appendix E).

3.2.1 The Nature of Action Research

Action research self-study is a participatory, self-reflective and critical stance to enquiry (McDonagh et al., 2020). The epistemology of this action research self-study is embedded in my educational practice as an advocate of Froebelian pedagogy. The transformative potential of critical self-reflective practice to enquiry is of great merit to enhancing and understanding one’s practice (McNiff, 2017), offering transformational capacities (McDonagh et al., 2020). The action research self-study paradigm facilitates critical reflection on values and invites me to move from reflection to action (Glenn et al., 2017).

Critical self-reflection facilitates “educational research” (Whitehead, 2018: 40) in the

systematic and enquiry process of planning, acting, observing and reflecting (McNiff, 2017). Educational research (Whitehead, 2018) infuses theory and emanates from my commitment to live out my articulated values by embedding PL informed practice. This approach aligns with and instils my ontological and epistemological commitments to uphold value-laden qualities in the action research methods. The potential of action research self-study to enhance my practice in PE is of great magnitude as the reflection-action cycle becomes a praxis whereby new living theory emerges (McNiff, 2017; Whitehead, 2018). Action research self-study is thereby a means by which the constant flux of living theory can move in the direction of my values immersed in a ‘‘new scholarship of educational enquiry’’ (Whitehead, 2018: 51).

3.2.2 Living Educational Theory

I embrace the action research self-study paradigm Whitehead (1989) coins as living educational theory. I am the living ‘‘I’’ at the centre of my action research and in theorising my practice (Whitehead, 2018). I hold core values relating to respect, democracy and voice as I strive, often imperfectly, to live out these values in the reality of practice. The Froebelian concept of child-centredness (Bruce, 2019) is an underpinning tenet of my core values. Therein lies the ‘‘magic’’ of living educational theory in action research self-study whereby my values become actions, life-affirming and energy-flowing (Whitehead, 2019).

I am committed to the values of respect, democracy and voice. These values resonate with core Froebelian principles in being attuned to the distinctive uniqueness of childhood and ‘‘inherently respectful of children’’ (Tovey, 2013). However, I continued to find these values negated in my practice in PE. This tension permeated PE in what Whitehead espouses as experiencing oneself as a ‘‘living contradiction’’ (2018: 130). The epistemology of my practice in PE was in tension with my articulated values (c.f. Chapter 1 Rationale). This action research self-study then highlights how I would hold fast my core values and Froebelian teacher identity if I were to negate the living ‘‘I’’ as a living contradiction in my practice.

With these tensions in mind, I embraced the living contradiction emerging in my practice in PE as an energising and life-affirming process (Glenn, 2006: 106) whereby I became immersed in teaching, living and researching through the epistemological and ontological core values I hold. I strived to live within these articulated values I hold so that I embody these values in PL informed PE and, much like Whitehead (2018), smooth out the living contradictions encountered. In doing so, I continue to feel a renewed enthusiasm to reveal my living educational theory and claim(s) to knowledge.

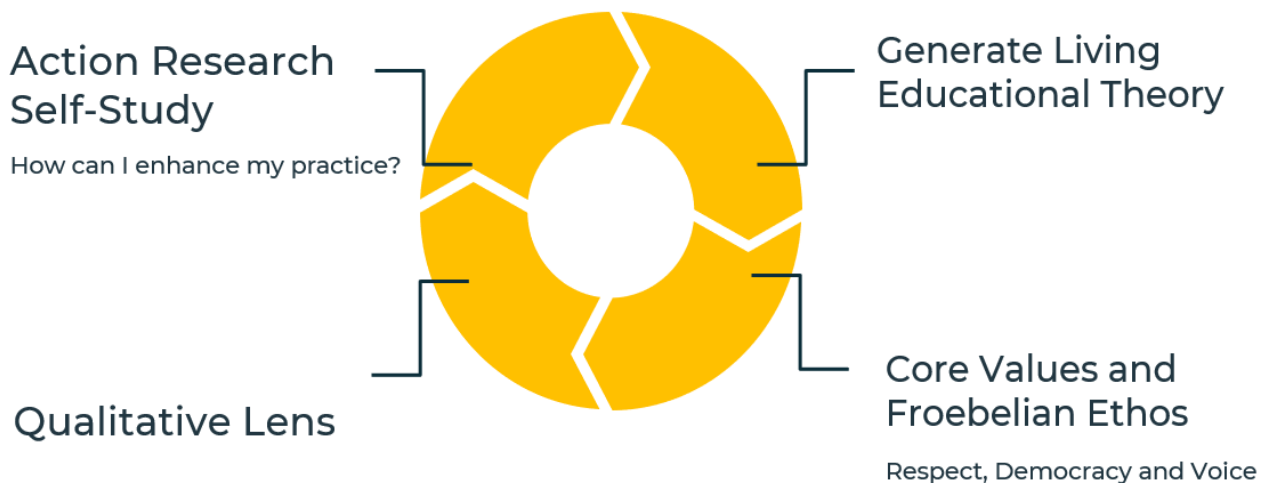


Figure 3.1 Snapshot of the Research Methodology

3.3 Data Collection

3.3.1 The Nature of Qualitative Research

Qualitative research methods guided the action research process to capture the richness and complexities of data. Qualitative research is unquantifiable in embodying qualities that are observable or innate (McDonagh et al., 2020) for rich, multi-layered and intricate understanding that looks beyond quantitative use of measurement for comparison (Cohen et al., 2018). The qualitative research methodology bolsters a fitness for purpose (Cohen et al.,

2018) that augments my epistemological and ontological values. This qualitative lens uplifts, respects and legitimises the voice of the participants, all core values of my Froebelian teacher identity. I endeavour to share my unique interpretation and experience of the action research self-study amidst the muddle, messiness and obstacles of the process.

3.3.2 Research Participants and Research Site

The research occurred in a vibrant primary school setting in a multi-grade 3rd and 4th Class. The sample size included thirty-nine participants, ranging from eight to ten years old, in a co-educational school that is of a Catholic Ethos. The school was a rural school and placed a high value on sport and PA in daily school life and in the school community through numerous initiatives. All of the children's parents consented and all children gave their assent to participate in the study.

3.3.3 Data collection instruments and rationale

The qualitative research instruments supported the comparable interpretations or disaffirming data that emerged. Affording magnitude to the voice of participants in embedding PL in PE is a key Froebelian premise of the qualitative research instruments as the core values then become the reflexive principle of this action research (McDonagh et al., 2020). As aforementioned in the literature review (c.f. Chapter 2), the inadequacy of the term “physical literacy status” (Shearer et al., 2018: 243) and defining PL in terms of ‘mastery’ only strengthens the rationale for the qualitative lens at the forefront of this action research self-study as, like FMS (Bolger et al., 2018), there is no agreement as to what level of PL would be considered as comprehensive. While I recognise that quantitative measurement provides practitioners and policymakers with empirical data in PL informed PE, there is very limited research that focuses on qualitative data to embed PL in practice. These research instruments then afford the potential to better capture its holistic qualities across all domains.

3.3.3.1 Journaling

In light of my epistemological and ontological values, I used research journaling daily. The research journal opened the space necessary to generate data from “neither theory nor practice alone but from critical reflection on the intersection of the two” (Cochran-Smith and Lytle, 1993: 15) and hone in on the ‘aha moments’ from the participants’ experiences. I reworked Gibb’s (1988) reflective cycle as a framework for the reflective journal (c.f. Appendix F). This framework interweaves the threads of theory and practice to facilitate rich reflection and meta-reflection in a coherent and systematic structure. This made the messiness and muddle of the action research process visible rather than recirculating the data as a neat and seamless process (Sullivan et al., 2016).

3.3.3.2 Content Analysis

Content analysis involved analysing numerous data sets to provide an important epistemological understanding of the action research self-study question. Content analysis delved beneath the “tip of the iceberg” (Lambert, 2019: 67) to better understand how the participants’ experiences of PL informed PE spoke to my core values through their experience of and reflection on PL informed practice. In an endeavour to live, teach and research through my values as fully as possible, content analysis reinforces the importance of child-centred, Froebelian-informed (Bruce, 2019) practice and research to which I am committed.

3.3.3.4 Semi-Structured Interviews

I implemented open-ended semi-structured interviews as a qualitative research method with participants during the research process. I used purposive sampling to decide on participants to engage in semi-structured interviews to elicit an information-rich perception of the action research (Efron and Ravid, 2013). The interviews were recorded on an audio recorder. The content was prioritised over a fixed format, order or wording of questions (Lambert, 2019). The flexibility to delve into participants’ responses and the pre-prepared questions (c.f.

Appendix J) provided a holistic snapshot (Alshenqeeti, 2014) of participants' experiences. I also considered the power-dynamics of semi-structured interviews and endeavoured to overcome the asymmetry of relationships with participants (Cohen et al., 2018) to retain a natural flow to the dialogue (Lambert, 2019), anticipating when to contribute and when to simply listen.

3.3.3.5 Semi-Structured Questionnaire

An open-ended semi-structured questionnaire was used as a qualitative research method. All participants completed the semi-structured questionnaires during the research process. The questionnaires included numerous questions that afforded the participants the opportunity to share their learning. In this regard, the questionnaires yielded rich data in revealing the depth, honesty and candour of responses that can be considered as the “gems” of the data (Cohen et al., 2018: 475).

3.4 Validity and credibility

Replicability and generalisability are inapt concepts for this research that is unique to me and my lived experience. With this in mind, validity and reliability are key premises to the trustworthiness of this action research. Validity refers to the precision and relevance to which the findings accurately reflect the data and concept(s) it sets out to study (Cohen et al., 2018). Reliability refers to consistency within the analytical process and findings (Cohen et al., 2018). I continually scrutinised these concepts regularly to support transparency in the action research. I will now discuss how the validity and reliability of the research were further enhanced by the methodological triangulation of research instruments (Cohen et al., 2018) and through social validation (Habermas, 1976 cited in Sullivan et al., 2016) in my action research.

3.4.1 Methodological triangulation

Methodological triangulation refers to implementing a multitude of research instruments to

corroborate findings and enhance trustworthiness and biases beyond a single research method (Cohen et al., 2018). Triangulation of data has been accomplished by including reflective journaling, participant journaling and mapping, content analysis, open-ended semi-structured interviews, a questionnaire and energy gauges. The triangulation of the qualitative research instruments strengthened analytical constructs (Alshenqeeti, 2014) and enhanced the validity of the data to gain broader and richer insights into the action research question (McNiff, 2017).

3.4.2 Social Validity

As part of enhancing the validity of my living educational theory, data and findings were continually shared, scrutinised and critiqued by a critical friend. This established the appropriateness of the emergent themes in light of the convergences and divergences of data. The stringent critique of colleagues constitutes social validation (Habermas, 1976 cited in Sullivan et al., 2016) to establish the trustworthiness of claims to knowledge (McNiff, 2017; Sullivan et al., 2016). This supports the validity of this research through dialogue with others.

3.4.3 Methodological considerations and limitations

Considerations

I invited the participants to clarify, refine or elaborate on their responses in respondent validation. Journalling, through in-depth observations, rich description and reflexivity, facilitated the continual adjusting and refining of data to substantiate my findings. The semi-structured interviews and questionnaire facilitated a mutual understanding in having the opportunity to simplify and rephrase questions to elicit more accurate responses (Lambert, 2019). The open-ended questions enhanced the reliability of data rather than leading questions that may have potentially predetermined a response (Cohen et al., 2018).

Limitations

The familiarity of the relationships with participants may have unintentionally influenced their

responses (Sullivan et al., 2016). Regardless of my efforts to remain impartial, participants may have answered questions dishonestly in light of their assumptions of what I may have wanted to hear (Cohen et al., 2018). With regard to participants' knowledge of the observation in question, the observer effect may have also influenced responses and interactions in light of their preconceived beliefs about the action research (Cohen et al., 2018), thereby influencing the outcomes of the data. I endeavoured to continually communicate that the focus remains on "I" as researcher. In doing so, the power was vested in and entrusted to the participants. Finally, I strived to intentionally negotiate and redress the power relationships (Sullivan et al., 2016) that can surface in action research. A Froebelian teacher identity facilitates an understanding of children as equal members of learning communities (Smedley and Hoskins, 2020) and this understanding and innate respect for children supported the process.

3.5 Ethical Considerations

I strived to achieve the respectful, honest, rigorous and just (McDonagh et al., 2020) ethical status and conduct of this research. I adhered to *Maynooth University Research Ethical Policy Guidelines*, upheld the Child Safeguarding Policy of the School and worked commensurate to the UNCRC (1989). I endeavoured to mitigate potential risk in accordance with Maynooth University guidelines as children are considered a vulnerable population (Sullivan et al., 2016). In this regard, I had a duty of care and professional responsibility to the participants to anticipate and be fully aware of the ethical dilemmas that could surface in the research process (McDonagh et al., 2020).

3.5.1 Principle of Informed Consent and Child Assent

I initially informed the Principal and the Board of Management (BOM) in writing of the purpose of this research and obtained permission to participate. I also obtained approval from the BOM to seek informed assent from potential participants and informed consent from their

gatekeepers accordingly (c.f. Appendix B). Prior to proceeding, the Froebel Department Ethics Committee approved the submitted ethical proposal and access to the potential participants was granted.

I wrote a plain, precise and accessible language statement for the purpose of informing the potential participants and gatekeepers (c.f. Appendix C). Informed consent includes the principles of information, comprehension and voluntary participation (Bourke and Loveridge, 2014, cited in Sullivan et al., 2016). With this in mind, the statement outlined the purpose of the action research, explained the participatory role of voluntary involvement, detailed the intended and confidential use of the data and emphasised that the children work as co-participants. I also verbally informed the potential participants of the research to ensure their comprehension of involvement (McDonagh et al., 2020). The potential participants were afforded the time and opportunity to clarify information about their involvement.

The potential participants were offered an opt-in or opt-out clause to obtain their informed assent to participate without fear of retribution, question, reward or coercion (Forrest, 2017) (c.f. Appendix D). All potential participants opted in and were represented fairly in the action research process (McDonagh et al., 2020). Participants retained their right to honourably withdraw from the action research process and withhold information in light of their personal responses.

3.5.2 Data storage

The data and narrative are held securely in password-encrypted files and stored for accessibility (McDonagh et al., 2020; McNiff, 2017). A copy of all encrypted data is held securely on Google Drive. The audio recorder and data in hard copy are held under lock and key in a secure location. This also includes the informed assent and consent forms of participation. The data will be retained for a duration in accordance with *Maynooth University Research Guidelines* of ten years.

These considerations together comprise the ethical responsibility of the researcher to uphold the “dignity and privacy” (Bassey 1990: 18 cited in Sullivan et al., 2016: 95) of participants. I attach great magnitude to the conduct of this action research within rigorous ethical parameters as children are deemed a vulnerable population.

3.5.3 Confidentiality, Anonymity and Non-Traceability

A guarantee of confidentiality is insufficient in this research as this necessitates withholding participants’ responses. Rather, all participants were guaranteed anonymity. I have not identified the participants’ names nor have I identified the school itself. All participants’ names were replaced by initials. I have not published or shared data, findings or personal narratives that may potentially identify the participant(s) or school. Moreover, data in hard copy has had all identifying information concealed. This is of paramount importance as anonymity and confidentiality are pivotal to research with children as participants and I must uphold my duty of care and professional responsibility (Sullivan et al., 2016).

An important consideration surfaced as confidentiality is potentially compromised within and beyond a group (Lambert, 2019). With this in mind, I instructed participants not to reveal any information to other participants outside of interviews or the action research itself. In the Froebelian spirit of respect and interest (Bruce, 2019), I regularly informed all those involved orally as continual communication is key to an ethical approach (Sullivan et al., 2016) and to the benefit of their best interests to maintain participants’ anonymity (McNiff, 2017). These considerations hold great magnitude in my commitment to the ethical conduct of this action research.

3.5.4 Principled sensitivity

I was highly overt to the possibilities of sensitivity and highly cognizant of how participants are experiencing the research in PE lessons. I was prepared to manage unanticipated outcomes and disclosures by following the University guidelines and ethical considerations outlined.

3.6 Research Design

3.6.1 The ‘Action’ of the Action Research

When?

The action research included two physically engaging PE lessons each week. I focused on the Strands of Games and Athletics in the PE Curriculum (NCCA, 1999). Approximately one hour was scheduled for the PE lessons.

Where?

The action research took place in PE lessons in a large playing area and in class. The physical PE lessons were an opportunity to engage in the strategies outlined and open the space for PL informed practice. Time was also afforded to PE in class to explore the why, what and how of our learning, adopting a PL lens to PE through strategy 1.

How?

The intervention included two action research cycles of action-reflection-action that materialised during PE lessons across January and February. This involved three strategies to embed a PL informed approach to PE. These strategies included

1. PE as teaching and learning
2. Mapping our PL journey as assessment in PE
3. Meaningful PE strategies as an extension of PL (to open a PL space in PE)

These strategies have been informed by and developed from the available literature, PE Curriculum (NCCA, 1999), professional course work, *Move Well, Move Often* (PDST, 2017), meaningful PE literature (Beni et al., 2021; Beni et al., 2018) and my vision and values. Data were recorded in these strategies through the research instruments of reflective journalling, content analysis, semi-structured interviews, a questionnaire and energy gauges. The children

engaged in PL journalling post PE lessons to reveal interesting insights into their experience. After PE, I also reflected in my research journal.

What was involved in the strategies?

The purpose of strategy 1 was to change the perception of PE as a sporting endeavour and begin to think of PE in relation to PL and its components throughout cycle 1. PE as teaching and learning involved numerous strategies such as

- Discussion about PL
- Learning about PA in school and at home
- Success criteria for PE lessons. For example, outlining the key qualities of what good running looks like (c.f. Appendix N).
- The key learnings from PE lessons. For example, the qualities of good teamwork.
- Discussion of tactical awareness in invasion games
- Spatial awareness and moving to create space
- Creating a PE Motto and PE Crest. The School Motto and Vision were used to encapsulate what the children had been learning through their PE lessons and through talk and discussion in the classroom. The purpose of this was to highlight their perceptions of what is important to them in PE. The children then visualised this as a PE Motto and Crest to characterise this.

Strategy 2 involved mapping our PL journey as assessment in PE. This involved the participants mapping their PL journeys through monitoring their progress in PE lessons. The assessment included mapping/ assessment in the form of journaling (c.f. Appendix G) and across the different domains of PL (c.f. Appendix H) in looking at what worked well in PE, what didn't and what areas to further develop. This provided PL journals and PL maps for data analysis. This approach to assessment involved

- Different components of PL being monitored: Physical competence, motivation and confidence and knowledge and understanding (components of PL).
- An individualised and personalised approach to monitoring progress so that the children could lead their learning and focus on their individual area(s) for progression.
- Springboard questions to hone in on key areas of PL informed practice to guide the children in relation to monitoring their progress.

The energy gauges also formed part of this process post PE. This involved a rating scale whereby the participants indicated their energy level as fuel in PE (c.f. Appendix I). The energy gauges fuse measurement with qualitative analysis. In this way, I focused more on the ‘why’ of the participants’ energy levels rather than the quantitative use of measurement for comparison. This made it more relevant to the participants’ unique learning experiences in PE.

I then considered how I could implement a revised plan of action to further PL informed practice and extend on learning across the PL domains that was commensurate to my core values. As democracy and voice are mainstays of my values, strategies that were informed by and an extension of the literature surrounding meaningful PE (Beni et al., 2018; Beni et al., 2021) were embedded in PE in cycle 2. These strategies opened up the space for the children to engage in PE in new ways. It was important for me that these strategies elevated the voice of the participants and, more significantly, gave the children a sense of responsibility for personal fulfilment in PE. These strategies were about opening the space for PL through meaningful PE to extend on what we were learning in the context of PE lessons. The children continued to monitor and map their progress (Strategy 2) in cycle 2. These strategies extended on the principles of meaningful PE (Beni et al., 2021; Beni et al., 2018) (c.f. Chapter 2) and include

- Choice: Offering greater choice to the participants during the PE lesson

- Autonomy: Co-decision making during PE lessons to afford greater autonomy to the children. For example, deciding on the shape and size of the playing area.
- Ensuring opportunities for positive social interactions in planned activities. For example, incorporating qualities of good team work.
- Challenge and experiences that are personally relevant: For example, changing the rules of games to challenge or hold more personal significance.
- Games that included numerous different qualities of meaningful PE. This opened a flexible space for PL informed practice. For example, “Connect 3” involved communication, team work, thinking skills and physical competence in addition to qualities such as strategy, spatial awareness and peripheral vision in movement.

Overall, the three strategies above did not offer a “step-by-step guide” (Beni et al., 2018: 612) to rigidly follow nor have I detailed exclusive strategies for embedding PL in practice. Rather, the strategies were developed to open a space for PL informed practice, for flexibility and to consider the components of PL in an integrated way in PE lessons.

3.7 Bias

I am aware that certain biases potentially exist in my action research and are pertinent to my core values, the research itself and the interactions encountered (Cohen et al., 2018). The significance of recognising these biases is related to my commitment to my core values of respect, democracy and voice for the betterment of my practice. I contend that critical reflection and the deliberate acknowledgement, negotiation and interrogation of my values, contribute to lessening the potential for undue bias (Cohen et al., 2018). This magnifies the significance of holding my value-laden practice up to the light to be acutely aware of the potential influence on the research.

3.8 Conclusion

In this chapter, I have discussed the systematic action-reflection cycle that reflects the action research journey and how this journey potentially evolves in light of my own epistemological and ontological values. I have outlined how living educational theory will be generated from this enquiry of “how I can improve my practice” (Whitehead, 2018: 1). I have also outlined numerous considerations related to the conduct of this research. I value this action research self-study as “self-nurturing (rather) than self-critical . . . learning to value the self as self” (O’Shea, 2018: n.p., cited in McDonagh et al., 2020). This has opened the space necessary to position my core values at the forefront of critically reflective practice. In doing so, I also stay firmly rooted in my living “I”. I remain very much committed to the core values of respect, democracy and voice that are rooted within a contemporary commitment to Froebelian principles in practice. I now endeavour for this action research self-study to not only transform my practice, thinking and understanding of practice but be an educative influence (McNiff and Whitehead, 2010, cited in McDonagh et al., 2020) on others in ways I cannot yet envisage. Now, in Chapter 4 ‘Data Presentation and Analysis’, I turn to the analysis of the data and findings.

Chapter 4 Data Presentation and Analysis

4.1 Introduction

In this chapter, I will present an analysis and discussion of the data collected on this action research self-study journey. The purpose of this research is to consider how I can embed PL informed practice at primary level. The data analysis process is outlined prior to the presentation and subsequent analysis of the data to initially highlight how the findings came to light. The extent to which the data is commensurate to or refutes the literature (c.f. Chapter 2) is considered as part of the data analysis to support the emergent living educational theory and new claims to knowledge in the direction of my values. I delineate a reflexive thematic analysis (Braun and Clarke, 2019) of the data to articulate the research findings wherein my values are the reflexive and explanatory principles. This reflexive thematic analysis of the data elicited three main themes from the qualitative data set. The three main findings include

1. Physical Literacy as a Model of PE for All
2. Increased Value and Engagement in Physical Education
3. A Physical Literacy Disposition in Physical Education

In the next section, I outline the process of the reflexive thematic analysis of data and subsequently present a detailed discussion and analysis of the data.

4.2 Reflexive Thematic Analysis of Data

I used reflexive thematic analysis as a qualitative analytic method informed by Braun and Clark (2019). I coded and identified reoccurring themes in the qualitative data sets that emerged from journalling, the children's PL mapping of progress, interview, questionnaire and the energy gauges. The phases of reflexive thematic analysis are outlined in figure 4.1 below. Reflexive thematic analysis extends on Braun and Clarke's (2006) initial concept of thematic analysis as

the themes are generated from the data rather than being positioned in the data.



Figure 4.1 Thematic Analysis Process Informed by Braun and Clarke (2019)

4.2.1 Reflexive Process

Familiarisation of Data

I initially outlined the data sets of journal entries, content analysis of the participants' journalling and engagement in PE, semi-structured interviews (in which I am the interviewer), questionnaire and energy gauges. I immersed myself in the data to become familiar and acquainted with the multitude of data collected through repeatedly reading and rereading the data sets. This was a personal-professional process of looking for patterns of potential meaning through engaging with the data (Braun and Clark, 2019).

Initial Coding

I then generated codes from the data. An analytic process of coding was used to outline similar identifiers emerging from the data. While the codes were initially very broad, I colour-coded the data to tell the story of the data.

Identifying Themes

I then analysed these codes to explore emerging themes. All possible codes were further collapsed and collated into initial themes. The codes opened the space to identify, record and

group themes emerging from the data sets. These were then considered as potential themes. For example, figure 4.2 highlights the initial and emergent themes from the data sets. These initial themes were further refined in the next phases of data analysis.

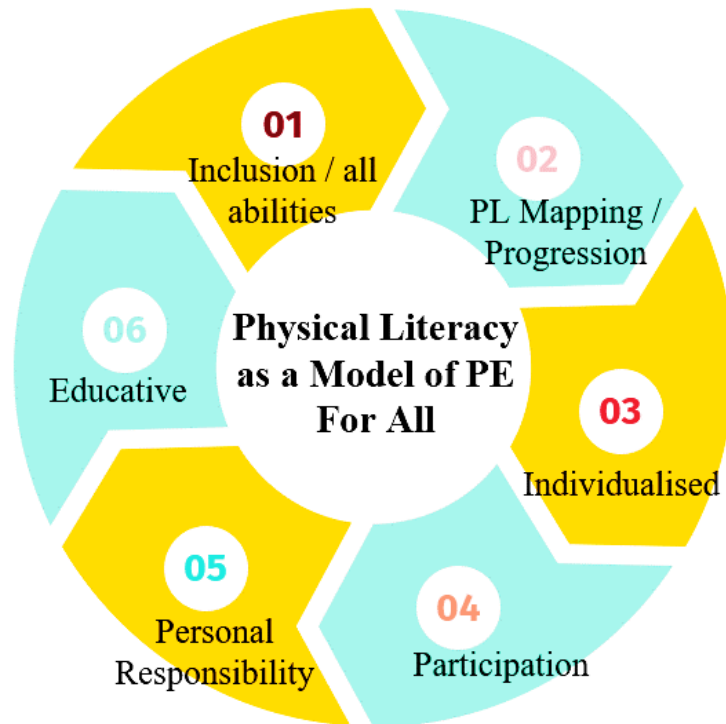


Figure 4.2 Initial Themes Generated from the Data Analysis Process

Refine Themes

I continually scrutinised the data in my research journal, in the participants' journaling and in the multitude of responses in the data sets, engaging in the process of data analysis to ensure that the themes held significance to the action research question. This process continued up to the point of theoretical saturation whereby I demonstrated analytical rigour (Cohen et al., 2018).

Define Themes

The penultimate step involved organising the themes in a way that would tell the story of the data. This was a reflective process of analysing the established themes. Three themes were identified. My understanding of my core values and Froebelian principles depicted living standards of judgement to do so. My values, therefore, were my explanatory principles (Laidlaw, 2018) in clearly defining the main themes. The three main findings are detailed below where I report on the themes and include:

1. Physical Literacy as a Model of PE for All
2. Increased Value and Engagement in Physical Education
3. A Physical Literacy Disposition in Physical Education

I will now report on the themes that emerged from the data analysis process. These are interpretive stories of the data generated through reflexive engagement (Braun and Clarke, 2019). This is not a “victory narrative” (Maclure, 1996: 293, cited in Sullivan et al., 2016). The findings that follow detail the ebbs and flows of my journey through a thematic discussion and analysis.

4.3 Findings

I will now present a detailed analysis and discussion on the three main findings from the data set.

4.4 Theme: Physical Literacy as a Model of PE for All

4.4.1 Individualised and Personalised Learning

The data that follows highlights how PL informed PE afforded opportunities to individualise, personalise and showcase progression in PE. Initially, however, the participants articulated in interview that they had very little experience of discussing their progress in PE.

Interviewer: *Is PE or learning discussed in the classroom? . . . What you learnt in PE? How your movement skills have developed? Or . . . how you can get better at PE?*

L.C. (10 year old girl): *Sometimes you'd say it to your friends but most of the time not.*

R.M. (10 year old boy): *Most of the time people are just asking "when are we going to PE?"*

L.S. (9 year old boy): *The more we ask sometimes the less you go.*

Interviewer: *Do you think it would be worthwhile discussing PE or what you learnt in PE? . . .*

Participants (multiple voices): *Yea!*

L.S.: *And when you are like in secondary school you learn a lot . . . (about PE)*

The interview responses indicate that there is an underlying desire to delve deeper into learning in PE. This is further reinforced by numerous participants throughout the interview discussion.

J.S. (10 year old girl): *Everyone is talking about PE, how they love to do it, because everyone loves PE.*

J.J. (9 year old boy): *Everyone, like, they kind of just discuss it like how I'm really excited for PE.*

The participants' aspirations and underlying enthusiasm for PE is further highlighted in discussing assessment in PE and measuring their progress.

Me: *How do you assess what you learn in PE? Like I said, how do you know if you are getting better . . . ?*

L.S.: *By practising . . .*

S.H. (10 year old boy): *If someone is faster than you . . . if you are getting closer to them each week . . . that's how you would know.*

Interviewer: *Is it up to the teacher to decide (to assess) or do you measure that yourself?*

S.H.: *Yes, myself.*

L.S.: *I feel like it is important because you can show people what you think of (PE).*

Mapping PL was then a fantastic springboard to showcase progression and learning in PE. What is clear in the multitude of responses above is that the participants have an inherent desire and innate excitement for greater personal responsibility for learning in PE. However, what was also evident in L.C.'s response is the uncertainty of how to build on their learning in PE.

Interview: *What can you do to help you improve on this?*

L.C (10 year old girl).: *I actually don't know.*

PL mapping was tailored to do just that. The participants' PL maps show a starting point for learning and a clear commitment to making progress in PE. The PL maps highlight the participants' awareness of their individual strengths and, at times, weaknesses (c.f. Figure 4.3).

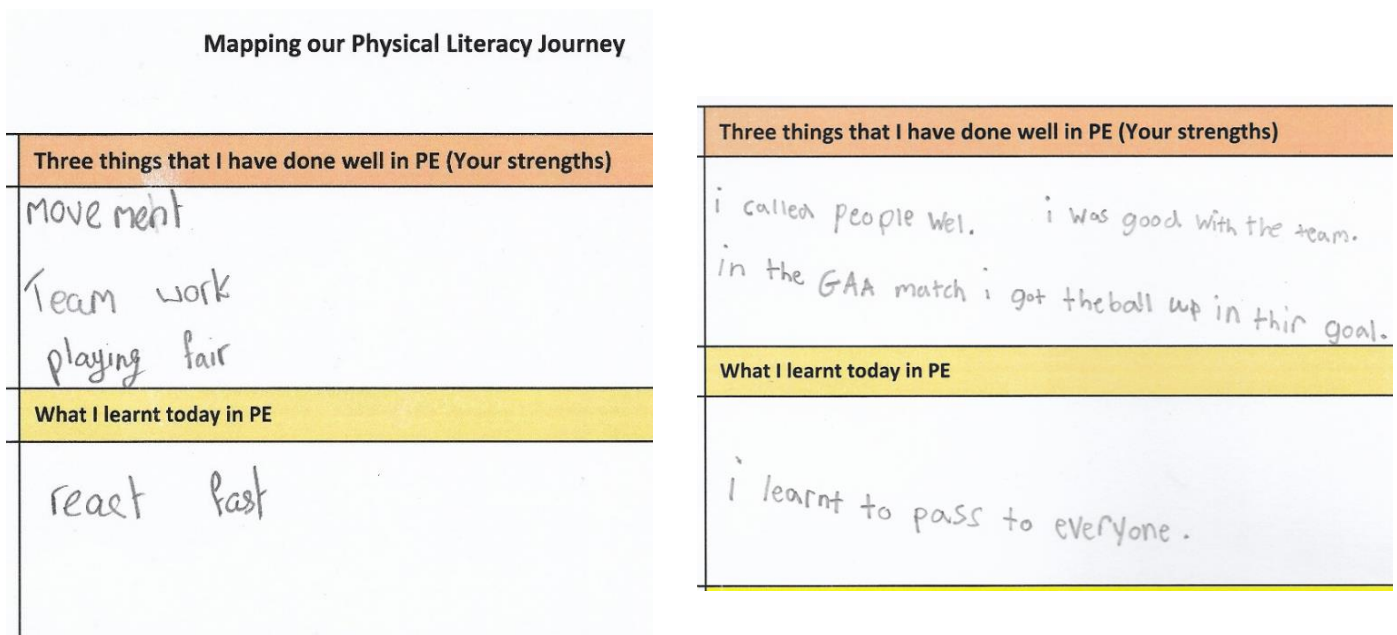


Figure 4.3 A Collection of PL Journal Examples

Mapping our Physical Literacy Journey		
Three things that I have done well in PE (Your strengths)		
Teamwork	Strength	Running
What I learnt today in PE		
How to focus		
One wish (one area of PE that you hope to work on)		
talking to my team		

Figure 4.3 (Continued) A Collection of PL Journal Examples

What is clear from the data is that the participants' personal goals informed their individual starting points. The children began to see PE as an opportunity to develop their skills and monitor (map) their progress in numerous areas. This appears to supersede the goal of assessment for measurement or comparison, particularly where S.H. (10 year old boy) articulates that progress can be measured by "getting closer" and making progress in comparison to children that may be of a higher ability level in PE. Notably then, PL journalling afforded a space wherein the participants could map their progression and tell their own stories across the PL domains (c.f. Figure 4.4).

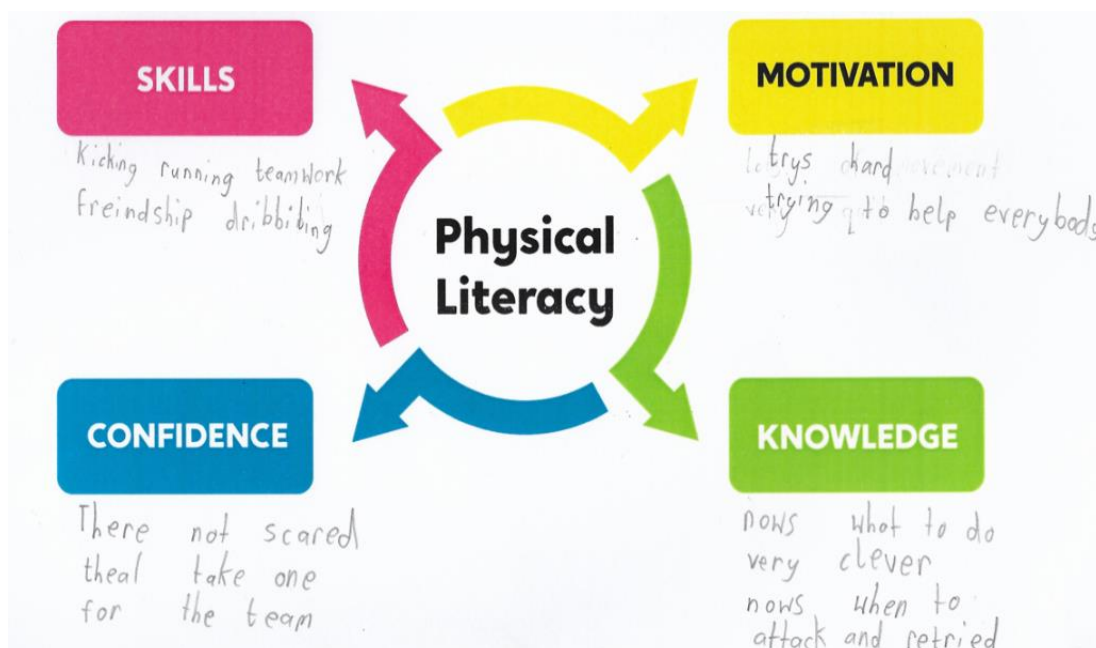
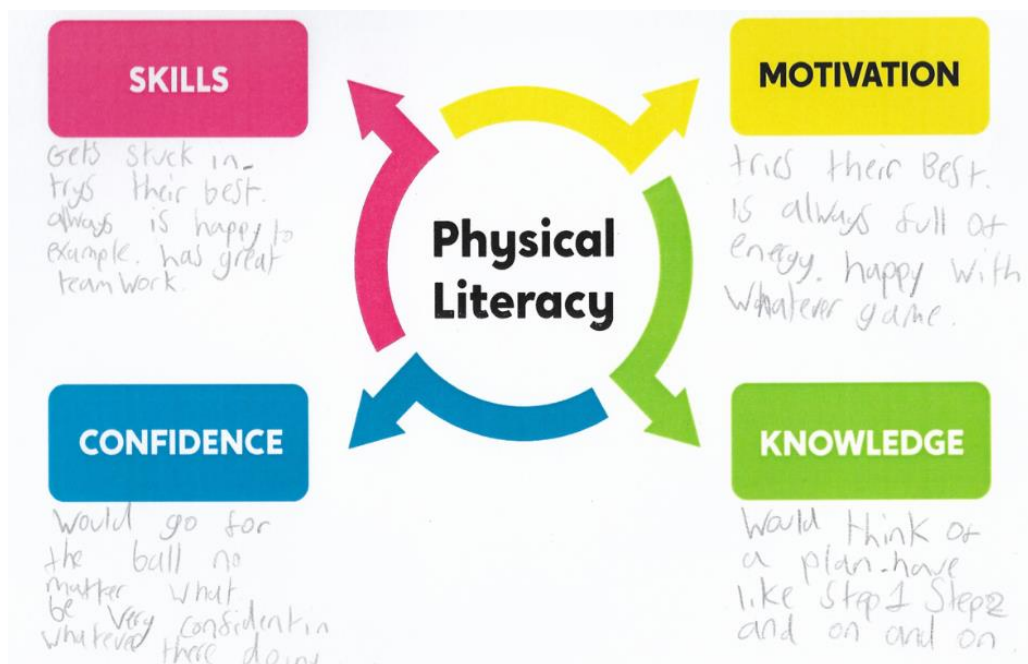
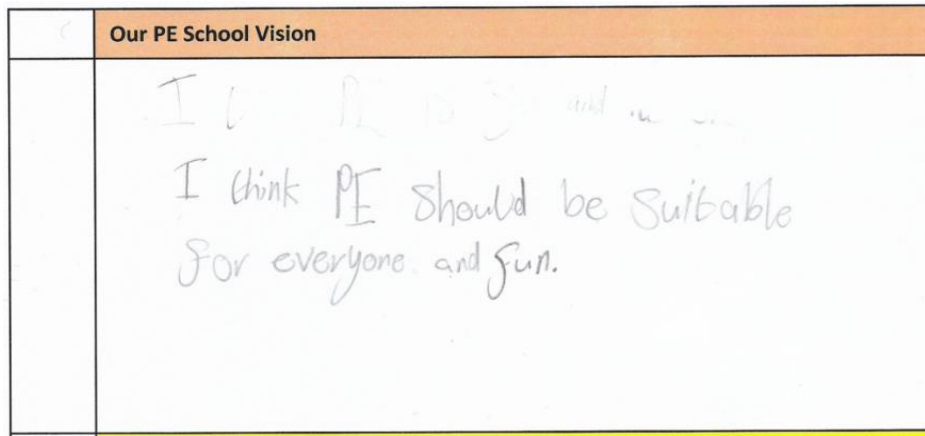


Figure 4.4 A Collection of PL Mapping in Different Domains

These findings then reinforce calls in the relevant literature (c.f. Chapter 2) to embed innovative and nonconventional approaches (Green et al., 2018; Whitehead, 2019) to individualise learning as a new voice in PE pedagogy. This pedagogical voice of PE reinforces my Froebelian approach to teaching as “Froebelian practice cannot be standardised into a method” (Bruce,

2012: 159). This then positions the child at the centre of their PL journey in calling for individualised starting points, inclusive of all children at all times in a model of PE for all ability levels. J.C. (9 year old boy) and L.B. (10 year old girl) capture the very essence of PL in encapsulating their learning in the School PE Vision (c.f. Figure 4.5) and School PE Motto and Crest (c.f. Figure 4.6).



Work of J.C.

Figure 4.5 PE School Motto and Crest Example (1)



Work of L.B.

Figure 4.6 PE School Motto and Crest Example (2)

The data then indicate the changing thinking patterns from PE initially being considered as simply just “fun” to a subject that is now encapsulated as fun for all children, “suitable for everyone” (J.C.) and, above all else, educative. The data then advocates a call to arms to afford children an opportunity to lead their learning in a model of PE that values individual progress that is often complex and ever-changing. PL informed practice then emerges in the commitment to individualising learning in PE. If I consider how Froebelian theory speaks to the data, I evoke Froebelian principles such as beginning “where the learner is” (Bruce, 2011b: 30), being attuned to learning that is “child-initiated and child-directed” (Bruce, 2011a: 24) and the role of teacher as facilitator (Smedley and Hoskins, 2017). I am then in a better position to enhance my personal and professional affiliation to a Froebelian approach to PL informed practice in PE.

4.5 Theme: Increased Value and Engagement in Physical Education

The data that follows highlights that PL informed practice enhanced the status of PE for children and, in turn, enhanced their participation in PE. The data initially highlight, however, a clear consensus that PE was not considered as a priority subject. The participants were asked in interview what the initial purpose of PE was.

S.H. (10 year old boy): I'm not going to answer that (whispered)

R.M. (10 year old boy): hhhmmm I need to think about that one.

The children's interview responses then indicated that PE is primarily regarded as a break for getting out of the classroom.

R.M.: It takes time off work.

Interviewer: Is PE not (school) work?

R.M.: Well, I know but it takes time off it.

S.H.: Yea! PE is, like, fun.

R.M.: *It takes up space.*

The participants were also initially vague in their responses to the purpose of PE in articulating that its purpose is primarily related to having fun.

L.S. (9 year old boy): *You get to have fun with all your friends and get to do fun games.*

All Participants (R.M., S.H., L.C., O.M., A.C., L.S.): *It's fun! Yeah!*

The participants' responses to the purpose of PE were primarily related to having “fun with all your friends and you get to do fun games” (L.S., interview response) and “loads of people with smiles on their face(s) running around” (O.M., interview response, 10 year old girl). In my research journal, I too, like the participants, initially characterised enjoyment, fun and engagement as key characteristics that go in some way to defining the purpose of PE. In my research journal, I write that “if the children are enjoying PE those children are going to be happy to participate in PE, have fun and be physically active” (Stafford, Reflective Journal, 2022).

These initial responses, however, are perhaps indicative of engaging in a performative and sports-based model of PE that shaped a prior and perceived position of what PE should include. While enjoyment and fun in PE are important, these do not define its purpose or value. This perception of PE is concerning as there is no alignment to the educational value of PE. If PE is considered only as an opportunity to expend energy and play sport, it is, at best, devaluing the purpose of PE and, at worst, detrimental to lifelong PA participation as it is not developing the components of PL needed to do just that.

PL left the door ajar to enhance the knowledge and understanding of the participants of the value and purpose of PE through PE as teaching and learning in class and through physically engaging in numerous strategies. My research journal indicates an initial point where my thinking begins to change and reflects an ever-expanding understanding of the educative value of PE. “If the learning intentions and outcomes of Maths today were for the children to enjoy,

participate in and have fun understanding the new concept, this would certainly be called into question. PE ... (should) stand on its merit'' (Stafford, Reflective Journal, 2022). This point, however, is called into question again in the mixed responses given by the participants as to the value of PE in curriculum.

Interviewer: *Is learning in PE as important as other subjects?*

A.C. (9 year old boy): *Yea*

L.C. (10 year old girl): *I feel like it's very important . . .*

L.S. (9 year old boy): *When you are moving in PE you get lots of exercise as well*

Interviewer: *Brilliant. So you get fitter.*

L.S.: *Yea.*

S.H. (10 year old boy): *I wouldn't say so. When you are in secondary school I'd say they are focusing more on your grades, like, in Maths and English.*

Interviewer: *But PE is now a subject . . . in secondary school*

O.M. (10 year old girl): *But the more you learn maths that's better ... you need to add up . . . quickly . . . It's not more important but PE is better.*

R.M. (10 year old boy): *Yea. It's more fun . . . I think PE is, it is way more important.*

L.C.: *English is grammar and writing stories and stuff but I feel like PE is more important.*

Overall, the participants recognise the importance of the core-curricular subjects. However, there appears to be an underlying value but underappreciation of PE in what the participants were articulating as "most people would rather do PE instead of Maths and English" (L.C., 10 year old girl, interview response). This is something I also call for in my research journal wherein PE " . . . has a higher status in the Curriculum, to be seen as a core-curricular subject as, to me, it really is" (Stafford, Reflective Journal, 2022). This is a reoccurring theme in the data sets. A gradual increase in the perceived value of PE emerged as a result of PE as teaching and learning and from the educative goals that were well and truly alive in PE through the

strategies opening a PL space in the physical PE lessons. This appeared to re-energise the participants' engagement levels. The increased value related to the educative goals led to increasing participation and, in turn, greater efforts in PE. This is reinforced by the participants' energy level ratings on the motivational fuel gauges, indicated by the participants' energy levels out of 10 prior to and post PE. A small number of energy gauges remained unchanged (c.f. Figure 4.7) while some energy gauges also increased post-PE (c.f. Figure 4.8).

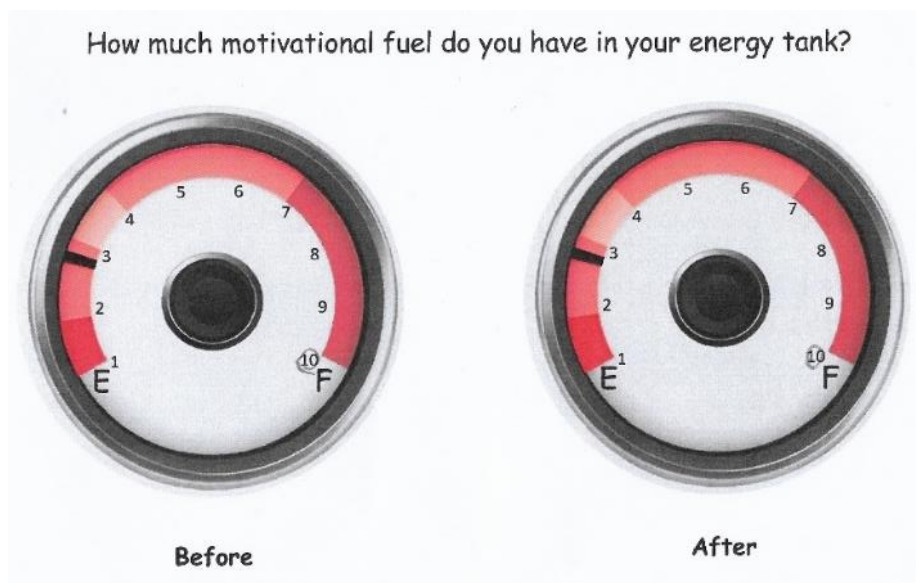


Figure 4.7 Energy Gauge Rating (Unchanged)

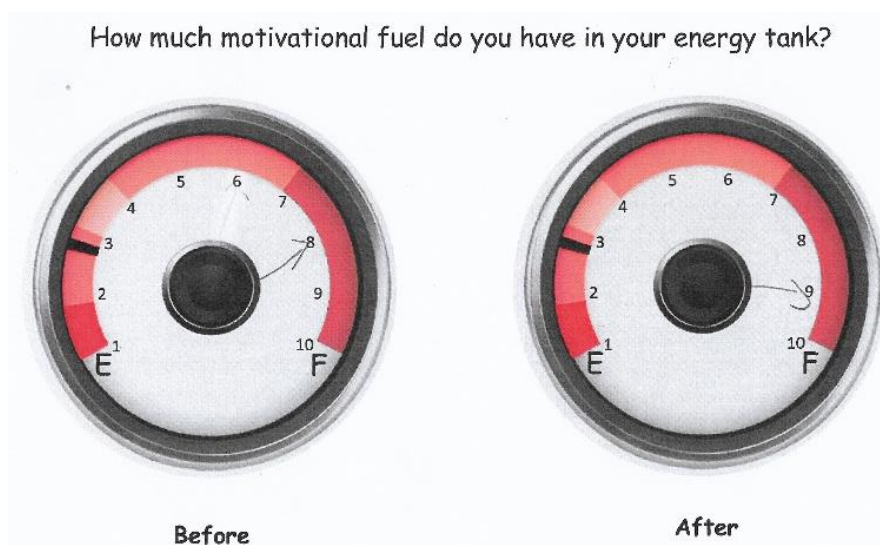


Figure 4.8 Energy Gauge Rating (Increased)

Numerous interview responses further reinforce the increased energy levels that happened as a result of its perceived value.

N.D. (9 year old boy): *How does PE make you feel?* (N.D. posing a question to the group).

M.N. (10 year old girl): *PE makes me feel like I just got out ... done something new... tried my best with it...*

D.M. (10 year old boy) articulates in interview that “*you feel more energetic . . . because of PE . . . when you feel more confident in PE . . . then you can do it more*”.

J.S. (10 year old girl) also articulates in interview that what makes PE enjoyable for her is that it is “*competitive in a way but it’s fun in the way you try your hardest*”. This emphasis on effort is further reinforced by R.M.’s (10 year old boy) PL journaling in which he writes that practice is central to his efforts in PE (c.f. Figure 4.9).

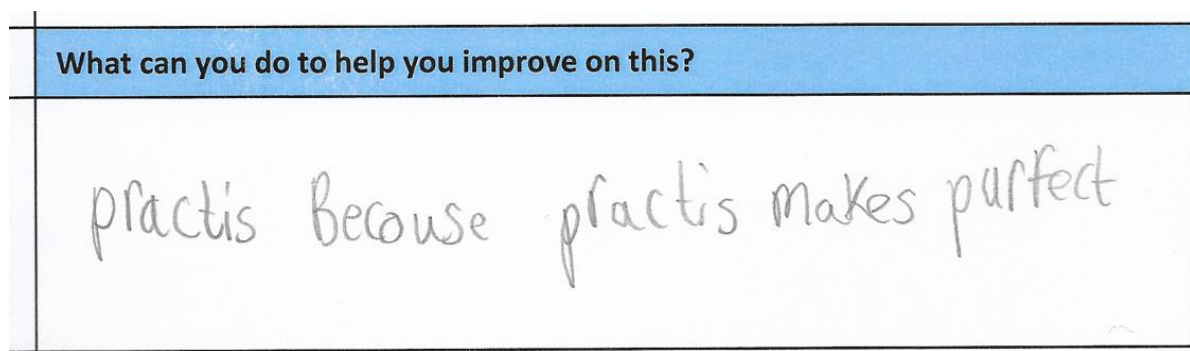


Figure 4.9 PL Journal Example (1)

Likewise, effort is the central principle of T.N.’s (10 year old girl) PE Motto and Crest from gaining a greater understanding of what developing PL in PE is about (c.f. Figure 4.10).

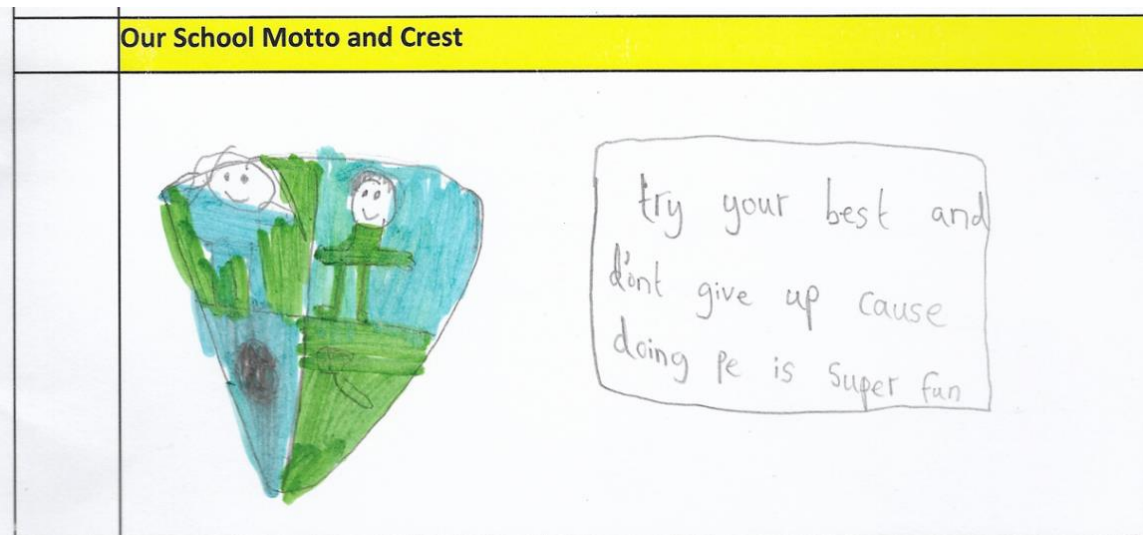


Figure 4.10 PE School Motto and Crest Example (3)

PE was now more about “give (giving) it your all” and “try(ing) your hardest” (L.E., 10 year old boy, questionnaire responses) (c.f. Appendix L). The data then indicate how the children came to value the perceived purpose of PE through their efforts and what was now important to them. The data highlight how an increase in the value of PE emerged, emanating from a PL approach that highly values effort in place of sporting ability. J.J. (9 year old boy) highlights this in his interview response in articulating “we learnt how to work together and to put commitment into what we do in PE”. This is a subtle change that has led to greater change in practice. My research journal reflects this change as I write “effort ignites ability and the boys and girls showed today that this rings true in abundance . . . effort and sportsmanship are rewarded, not ability. It is no longer about who wins” (Stafford, Reflective Journal, 2022). This then extends on the available literature and represents more than simply finding a starting point in PE. These findings indicate that my intention for PL informed practice is to capitalise on what children are already accomplishing in PE and build on their participatory efforts. I put this change very simply in my research journal. “The effort that the boys and girls are putting in has become the starting point on their PL Maps and the springboard for progression in PE,

for developing technique, for steadily improving . . .” (Stafford, Reflective Journal, 2022). This is significant as it highlights that if children have a clearer understanding of the value of why we do what we do in PE and its value to lifelong PA, their participation and efforts will increase and align more fully to the vision of PL. In a Froebelian sense, PE is then educative as children were afforded the time, space and opportunity to participate in earnest (Hoskins and Smedley, 2019) as the value of PE ignited their efforts. My Froebelian teacher identity then facilitates an understanding that PL informed PE, much like play in the Froebelian sense of the word, has been (and should be) replete with opportunity, time and space for effort to be valued. This is fundamental to my Froebelian teacher identity as PE can then potentially become a springboard to self-initiated and self-directed PA (Bruce, 2011a).

4.6 Theme: A Physical Literacy Disposition in Physical Education

The data that follows highlights that there has been a move from simply ‘doing’ PE as a physical and active subject to approaching PE in a new light. There are numerous pieces of data that are related to motivation and confidence, knowledge and understanding and physical competence and these are interwoven throughout this theme. The participants, however, initially appeared muddled about what I meant by PL in our PE lessons. PL, as a concept, was unclear. This is highlighted in their interview responses.

Interviewer: *When you think of PL, what does it mean to you?*

R.M. (10 year old boy): *Em like eh how em motivated you are.*

Long Pause

Interviewer: *Is it about our movement skills?*

S.H. (10 year old boy): *I don’t know what to say.*

Interviewer: *I’m (sometimes) not sure what PL is ... I forget what it means.*

A.C. (9 year old boy): *I don’t know.*

L.S. (9 year old boy): Ask *Google*. *Google knows*.

R.M.: *I don't know what it is*.

A dissonance appears between the participants' understanding and perception of PL and what PL informed practice represented as a whole. However, the data potentially highlights how the participants' understanding of PL may be better understood in terms of how they engaged in PE and think about PE in a new light. My research journaling supports the idea of a new approach in PE wherein in I write "we are beginning to ask what movement skills are important when and why" (Stafford, Reflective Journal, 2022). P.M. (10 year old boy) supports this in his questionnaire response in writing that his increasing knowledge base of PE is important as "... you have to read the game and know where to be ..." (c.f. Figure 4.11).

	What makes PE enjoyable and motivating for you?
	I like running really fast, scoring lots of goals and being in the middle of the action and winning lots of balls.
	Is knowledge in PE and of PE important?
	yes. because you have to read the game and know where to be to win the ball.

Figure 4.11 Questionnaire Response Example (1)

The participants' questionnaire responses further support the idea that PL is better understood in the context of PE rather than as a discrete concept that is easily articulated. These questionnaire responses include H.H. (9 year old boy) writing that "you have to be strategic in PE" and D.N. (9 year old girl) writing that PL is included in PE as "... we use different skills

in PE”. R.M. (10 year old boy) goes on to write in his questionnaire response that sharing and discussing our learning in PE is important “ . . . so you know why you would (need) it in a match” (c.f. Figure 4.12). What is emerging here is not the children’s strong knowledge base of PE or PL but their awareness of the importance of expanding their knowledge and understanding of movement in PE on a pathway that lead to progression.

It is important to or it is not important to share and discuss what we learn in PE because ... (Please circle your option)
<p>it is important so you know why you would it in a match</p>

Figure 4.12 Questionnaire Response Example (2)

While there remains work to be done in clarifying what we are seeking to develop, the change in practice to PL informed strategies began to instil a PL disposition in the participants. While the participants find it difficult to clarify how the qualities of this PL disposition come to light, it is evident in their interview responses that there are underlying qualities of PL inherent in what they do.

Interviewer: *Do you think those movement skills can be developed in PE and how do you think so?*

L.S. (9 year old boy): *They can be in PE because like when you are doing PE they are probably in the games as well but you have to do them . . .*

Interviewer: *You’re not thinking about them as you do them . . .*

L.C. (10 year old girl): *Sometimes you don’t realise you’re doing the stuff in the game and then you jump really high or run really fast in the game ...*

The data then highlight an attitudinal shift in relation to physical skills being the ‘hub’ of PE

(Kozera, 2017) and a move towards a PL disposition and integrated approach to the entirety of what PL involves. There is a move away from the physical skills to “. . . jump really high or run really fast . . .”. This emerging PL disposition is, however, obscured by the participants’ energy level ratings in PE. The results highlight a decrease in overall energy levels as the motivational fuel gauges indicate (c.f. Figure 4.13). This may be the result of overemphasising the educative aspect of PL that perhaps changed the children’s perceptions of PE being ‘fun’.

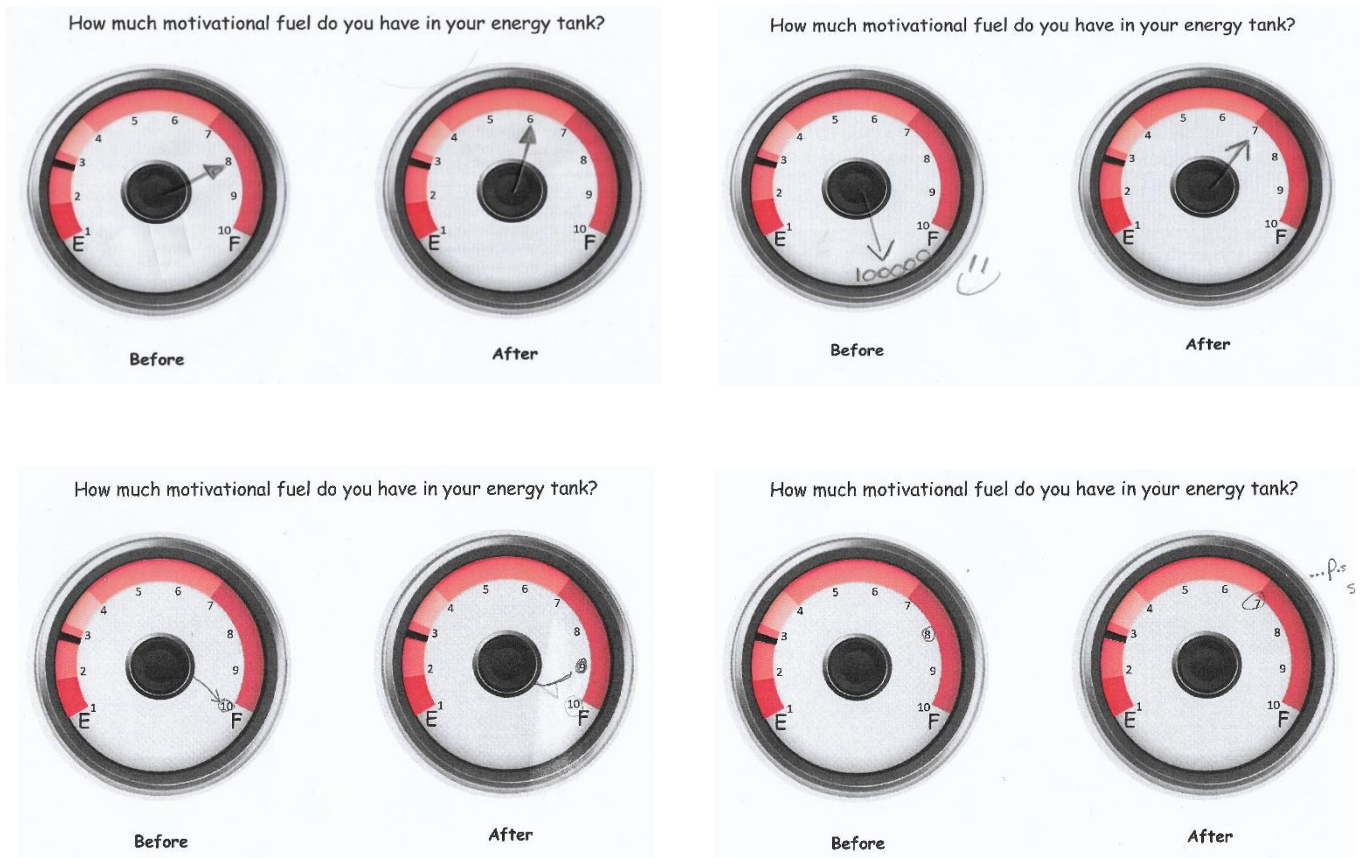


Figure 4.13 Energy Gauge Ratings (Decreased)

The nuance of mapping PL and monitoring (more so than showcasing) progress in PE appears to decrease over time and, as a result, so too does the participants’ motivation. This decrease in motivation may also be the result of overburdening the participants with autonomy as a sense of frustration sometimes emerged. This was evident as the children struggled to identify how

progression is made in the more abstract domains of PL. R.M. (10 year old boy) articulated his frustration very simply in that PE should now include “less learning, more hurling” (discussion in lesson based on School PE Motto and Crest, c.f. Figure 4.14).

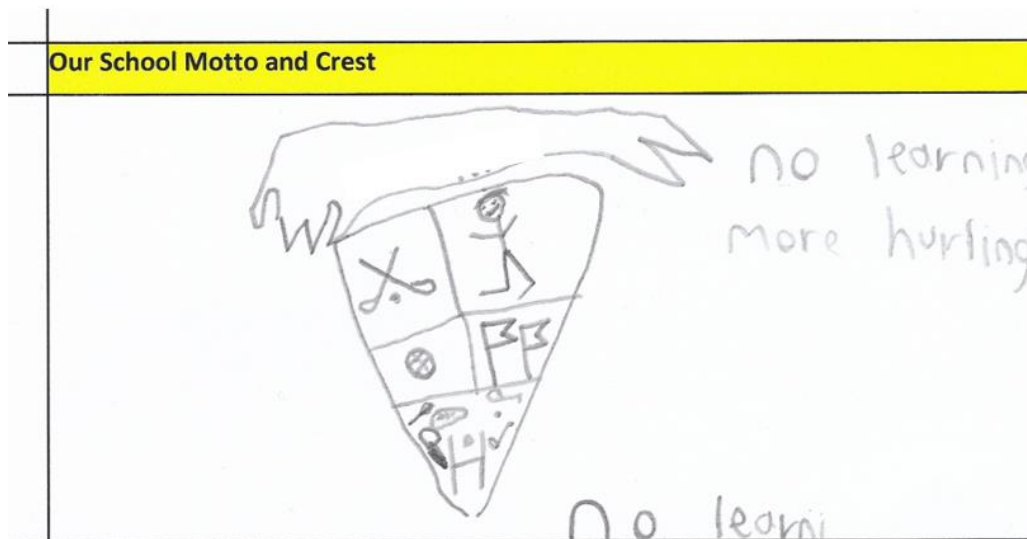


Figure 4.14 PE School Motto and Crest Example (4)

This lacklustre spirit for a new disposition in PE and the feeling of apathy among the children is further reinforced by T.N. (10 year old girl) in her PL mapping (c.f. Figure 4.15).

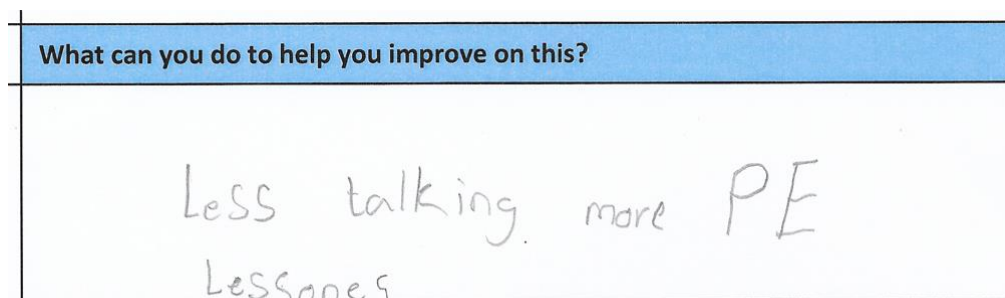


Figure 4.15 PL Journal Example (2)

The decrease in motivation levels is further evidenced by my research journal wherein I write that “the voice of the children is not always paying compliment to their physical proficiencies . . . so much of what PE is about . . . PE is sometimes demanding that I show up more as a

teacher . . . as children are becoming less interested and less motivated in PE at times” (Stafford, Reflective Journal, 2022). I was, at times, unsure of how to support the children. This leaves the door ajar to ask the question if the emerging PL disposition was taxing the children’s autonomy too much at times and, in turn, influencing their motivation and enjoyment of PE. On reflection and on discussion with my critical friend, however, further findings challenge this initial analysis. There appears some dissonance between the energy ratings and what numerous children were experiencing in PE. J.K. (9 year old girl) writes in her PL journaling that she is getting more confident, perhaps over time and through ongoing participation, in things she is not fully familiar with in PE (c.f. Figure 4.16).

	One wish (one area of PE that you hope to work on)
	that i get more confident in things im not familiar with.
	What can you do to help you improve on this?
	Work harder and try my best.

Figure 4.16 PL Journal Example (3)

H.S. (9 year old boy) further supports this in interview, articulating that “once you’ve done it, you’re better at it and you get even better”. This highlights how the participants did not always find a sense of personal fulfilment in PE nor in mapping their PL journey. A plausible explanation for this may be that progress was emerging as gradual but non-linear. While we are now “viewing success and progress as a possibility of PE” (Stafford, Reflective Journal,

2022), the sense of accomplishment and success was ever-changing and, if sometimes, absent. What was accomplished, however, was that “everyone was making a step in the right direction . . . their own step forward and sometimes that meant taking a step back” (Stafford, Reflective Journal, 2022), perhaps indicative of their decreasing energy levels. This step back is important. It was through dialogue with my critical friend that I realised this opened up the space for the children to see what they were already accomplishing in PE and capitalise on those achievements to see a direction in which they were heading. The children were gaining a greater awareness of their individual progress.

What the data above then encapsulate is how the participants’ emerging PL disposition was ever-changing through their ongoing participation. J.K. (9 year old girl) highlights her emerging, if underlying, PL disposition in creating her School Motto and Crest on having “fun” but getting the work “done” to progress in PE (c.f. Figure 4.17). This is certainly a step forward from participants asking for “less talking” and “more PE”.

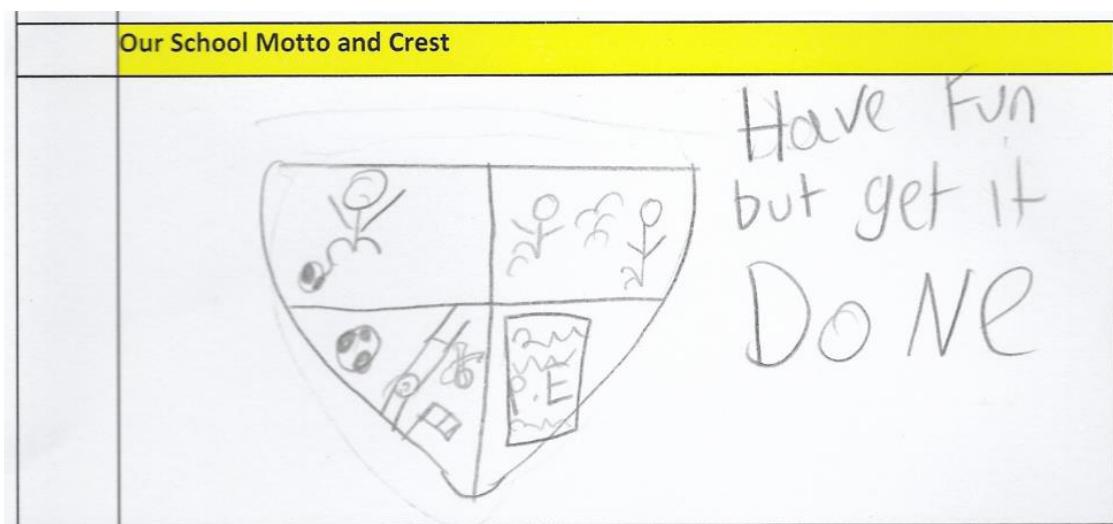


Figure 4.17 PE School Motto and Crest Example (5)

This captures so much of what developing a PL disposition is about; Children having fun whilst getting their learning ‘done’ in PE that is physically educative. This emerging PL disposition

is further supported by H.H. (9 year old boy) in his questionnaire response as he writes that PL is very much about our strengths and weaknesses in PE (c.f. Figure 4.18).

	What is Physical Literacy?
	have strengths and weaknesses in p.e

Figure 4.18 Questionnaire Response Example (3)

Likewise, P.M. (10 year old boy) writes in a response on his questionnaire that PL is about how well you do in PE (c.f. Figure 4.19) while, crucially, B.S.L. writes that “it’s the way we are doing PE”.

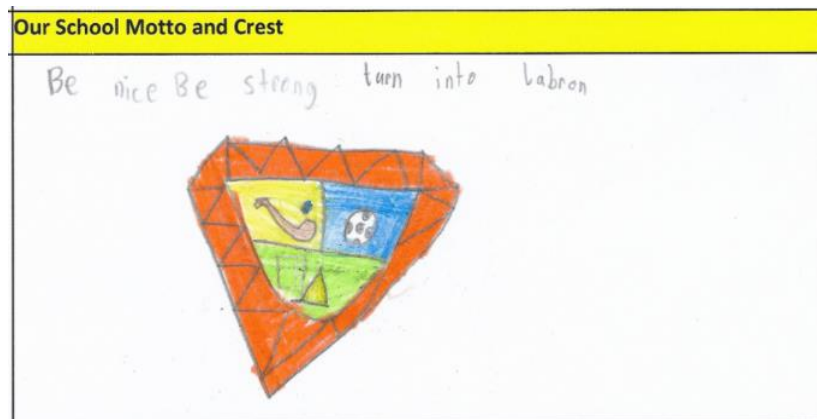
	What is Physical Literacy?
	Physical Literacy is how well you do in P.E.

Figure 4.19 Questionnaire Response Example (4)

This is perhaps a gradually emerging and ever-changing PL disposition, frustrating and demotivating at times, but educative to instil a love of lifelong PA. For some children, their understanding of this emerging PL disposition is reflected in what they encapsulated in their PE Crest and Motto. H.H. (9 year old boy) and L.S. (9 year old boy) see a strong PL disposition in sportspeople they aspire to and in the attributes they possess (c.f. Figure 4.20).



Work of H.H.



Work of L.S.

Figure 4.20 PE School Motto and Crest Examples (6)

Regardless of how a PL disposition is emerging, I write in my research journal that “PE has become so much more than the children simply being physically active. The children are getting something from it” as “PL is encouraging me (and us all) to think about the greater picture in PE” (Stafford, Reflective Journal, 2022). While a commitment to PL took time and the “greater picture” appeared blurred at times, it is those very sentiments that characterise the emerging PL disposition in practice. I write in my research journal that “this is PE with purpose

. . . I am questioning more of what I am doing and why I am doing it . . .” (Stafford, Reflective Journal, 2022). I continuously “considered the nuts and bolts of what constitutes PE that is informed by PL” (Stafford, Reflective Journal, 2022). This reinforces calls in the literature to embed the key principles, or the “nuts and bolts”, of PL in practice (Durden Myers et al., 2018) in an integrated way. These considerations surmount the this-is-what-really-works candour of my initial journaling that represented “so much of what PE is (or should be) about” (Stafford, Reflective Journal, 2022) and keep in mind the overall “bigger picture” of supporting lifelong learning and engagement in PA for life. This perhaps indicates a better understanding of an emergent PL disposition and how it is informing my teaching and decision-making in PE. By no means has this understanding defined my practice. Change has not been profound in this regard. Rather, I put it simply in my research journal. “PL is sitting on my shoulder as the little voice calling for high-quality teaching in PE” (Stafford, Reflective Journal, 2022). This little voice has ignited a lasting impact to support a PL disposition in the children I teach.

4.7 Summary and Conclusion

In this chapter, I have outlined the data and presented an analysis of the data from two cycles of this action research self-study that considers how I can embed PL informed practice at primary level. A reflexive thematic analysis of the data elicited three main themes from the qualitative data sets. These findings include

1. Physical Literacy as a Model of PE for All
2. Increased Value and Engagement in Physical Education
3. A Physical Literacy Disposition in Physical Education

I articulated these findings using the relevant literature as support (c.f. Chapter 2) and considered the extent to which these findings are commensurate to or refute the literature. The

findings emanating from the data highlight the complex realities of living theory and are, by no means, a “victory narrative” (Maclure, 1996: 293, cited in Sullivan et al., 2016). I remained firmly rooted in my living “I” in teacher as researcher, as storyteller and in theorising my practice. The findings highlight the ebbs and flows of my research journey, the key learnings that occurred along the way and how I can better align PL informed PE with my educational values. While the data analysis has provided potential answers in my endeavour to live, teach and research through my values, more questions have inevitably been raised. In the final Chapter ‘Conclusions and Recommendations’ I will conclude the action research self-study by critically reflecting on the complexities and questions that have emerged. I will outline the limitations and discuss the educational implications, recommendations for future studies and how this journey has shaped my values and identity as a Froebelian teacher.

Chapter 5 Conclusions and Recommendations

5.1 Introduction

In this chapter, I conclude my research journey. The purpose of this research has been to explore how I can embed PL informed practice at primary level. PL informed PE has been transformational in many ways and this has laid the groundwork for new and innovative thinking in my practice. I detail the educational implications of this research on my practice, curricular change and policy and on my values and teacher identity. I then consider the influence of my research on my core values. I reflect on my personal professionalism and where I have travelled to on this research journey. I also highlight where more work is needed by outlining recommendations for future research endeavours prior to the strengths and limitations of this study.

My knowledge base of PL has increased exponentially. However, it has been difficult to fully reflect and conclude on what has been learnt from my journey as more questions have been raised than answered. PL as a concept is complex, to say the least. This action research has been a journey full of highs, lows, excitement and, at times, frustration but my horizons have been broadened immeasurably. While the interconnectedness of PL and PE has been acknowledged in research to date, this research provides empirical evidence of the need for PL to become the gold standard of PE. This has never been more important as changes to the Irish PE landscape are currently ongoing. PL holds the key to igniting a lasting impact on PA.

5.2 Educational Implications

In this section, I will outline the key educational implications on my practice, curricular change and policy development and on my values and teacher identity.

5.2.1 For Practice

PL informed practice has been transformational in many ways. First and foremost, PE now holds a more significant place in my classroom. There appears a cyclical relationship between the value of PE and engagement in PE as one heightens the other. This is key as PL needs to be considered as a core literacy to move PE forward. Teachers and practice on the ground can be the catalyst for transformation so PE can thrive as a core subject area. PL informed practice has certainly contributed to redefining the value of PE in my practice. PE has moved from a basket of sports, refereeing games and throwing up the ball to a more worthwhile and legitimate endeavour in and of itself that has the potential to support lifelong engagement in PA. It now also matters how, when, why and for what we are moving, not solely if we are moving. My practice now supports the aspirations of PL by empowering children to be in a position to choose PA for life. In the next section, I consider the educational implications on curriculum and policy.

5.2.2 For Curriculum and Policy Development

How PL is included in or supports the curriculum will inevitably shape PE in the future. If Health and Well-being, one of the key principles of the new *Draft Primary Curriculum Framework* (2020), is to be upheld, then a commitment to PL is necessary. For me, a commitment to PL took time as I encountered extensive deficiencies as there is no reference to PL in the PE Curriculum (1999). Establishing a guiding framework and key principles for PL appear a logical place to start to, first and foremost, establish an agreed position on PL. Accessible language, the balancing of all domains, PL as a lifelong journey and its practical application could be established as key priorities from my research for doing so. However, I was cautious to not over-simplify my interpretation of PL as this could have jeopardised its true vision of supporting lifelong PA.

PL, as a separate proposition, may make the concept more tangible to relevant parties (Brown

and Whittle, 2021) through cross-sectoral development. However, if PL is to be developed, it is pivotal that the concept is reflected in curriculum and policy. This research has underpinned the need to establish a clear and compelling position on PL to develop PL as a tangible concept in educational settings and, further afield, in a cross-sectoral way. I have learnt greatly from my research and our international counterparts in this regard. I would strongly advocate for PE to be underpinned by PL in the Curriculum. Much like the enactment of PL in the Australian Health and Physical Education (HPE) Curriculum (Brown and Whittle, 2021), the inclusion of PL in the PE Curriculum does not lessen the importance of the PE Strands. PL would perhaps complement and support the delivery of the PE Curriculum Strands and add greater clarity to the learning intentions in numerous PL domains. This opens the space to formalise and capitalise on what teachers are already accomplishing in their practice as the principles of PL are so often implicit in the content of PE. The most significant educational implication, however, is rooted in the personal and professional development and the growth I have experienced on my action research journey which will be discussed in more depth in the next section.

5.2.3 My Values and Teacher Identity

At the beginning of this research, my practice in PE was at an impasse. I promoted a sports-driven model of PE where the realities of my practice stifled my articulated values. While I hold child-centredness as my core epistemological value, this action research has influenced my thinking and taken me on a journey to question the prominence and true meaning of what a Froebelian, child-centred approach looks like in my current practice of PE. Indeed, learning that is highly individualised, personal and unique to each child in PE can perhaps be considered in terms of a Froebelian and child-centred approach. However, I have shown great caution, in fact, in using the term “child-centred” throughout the discussion of the findings and analysis.

If “who I am in how I teach” (Kelchtermans, 2018: 239) emerges in, from and through my practice, I am reluctant to simply assume that PL is or should be “child-centred” but instead relate to my core values.

Many would agree that child-centredness is an indispensable part of being a Froebelian educator. However, this has not been my lived experience of PL informed practice. I found myself so often learning from teaching and teaching from learning. I was listening. I was directing. I was following the children’s lines of thought. In this light, child-centred is simply not a descriptor of PL informed practice. The key implication of my research on my values and teacher identity then emerges from an understanding that the child and teacher play an equal role, each as important as the other, to enact a vision and the direction of individual and unique PL journeys. This is very much in line with what Langford denotes as a democratic centre (2010) in literature where the child and the teacher are both at the centre of the learning journey. This research journey has opened the space necessary for me to reflect on my relationship with Froebelian principles and how these have been shaped by my prior Froebelian background. My research is not a longed-for “victory narrative” (Maclure, 1996: 293, cited in Sullivan et al., 2016) but an exploration and sometimes a reminder of “who I am in how I teach” (Kelchtermans, 2018: 239). My teacher identity has played a key role throughout my research and is where I have gained the most from my personal and professional research journey. My values have united to champion a contemporary understanding of an ever-expanding teacher identity. This is one wherein child-centred learning is not solely child-directed.

5.4 Future Practice and Recommendations

5.4.1 Recommendations

Following on from my findings above, I will now outline numerous different recommendations for future consideration for myself and others to consider. Not everything went according to

plan and, as aforementioned, this research journey does not intend on being a “victory narrative” (Maclure, 1996: 293, cited in Sullivan et al., 2016). Rather, the purpose of providing these recommendations is to support practitioners in the field of PL and open the space for tweaking the research.

Recommendation 1: PL informed practice involves individualising learning in PE. This research has shown that ensuring learning in PE is individualised is a step towards PL informed practice. Ensuring that all children are afforded a positive and enriching PE experience is pivotal. I would certainly recommend for progress in PE to be individualised, predominantly focusing on celebrating and reflecting on children’s achievements while also monitoring what, how and why progress is made. This opens the space for children to reflect on what it is they are learning in PE and why. I would also recommend a very simple process of reflection that includes mapping progression through oral discussions, written pieces of work and photos to evidence their PL journey.

Recommendation 2: Progression should be valued and supported. I would highly recommend that progression in PE, no matter how small, should be valued. In light of one of the main findings of this research, increasing the value and status of PE led to increased participation so this is pivotal. I hold respect as one of my core educational values and it is respectful of me to recognise the achievements of the children I teach. However, I would encourage practitioners to hone in on how those individual and small steps can be monitored. Clarification of what progress has been made and how best we can support this must also be considered to support child-initiated and child-led progression. This then includes an important recommendation to outline the challenges on the pathway to self-initiated learning in PE. The emphasis should be placed on individual interpretations of progress from individual starting

points, supported by teachers and all relevant parties alike whilst gradually increasing the personal responsibility afforded to children. This reflects my core educational values of democracy and the child's voice.

Recommendation 3: All domains of PL should hold equal importance. It remains pivotal to consider all domains of PL if to greater and to lesser extents at times. I would recommend to others to continuously remind themselves that the shared goal of all PL advocates is to promote PA for life. It is then an important recommendation that PE captures learning in numerous different PL domains, misunderstandings and uncertainties abound. Notable, however, is a commendable comparison made by Keegan et al. (2019) wherein PL is compared to the periodic table. The periodic table, much like PL, comprises of single chemical elements and these elements can merge to form more complex compounds. Much like the periodic table, the elements of PL can perhaps merge over time through PL informed practice.

Recommendation 4: One size will not fit all. It is essential that practitioners consider the practicalities of PL informed practice in relation to time, space, learning outcomes, curricular level, readiness levels, prior knowledge and resources available. What works for one teacher may not work for another. I would encourage teachers at all levels to embed strategies that are aligned with PL to suit their context. I would caution the direct replication of PL informed strategies across different contexts as the findings of this research reinforce the literature that PL is a journey that is unique to individuals (Whitehead, 2019). Likewise, PL was not a panacea in my practice but supported differentiation that personalised learning and made its educative purpose more accessible to all children. I then encourage practitioners to open the space for embedding the key principles of PL (Durdin-Myers et al., 2018) and to consider these in an integrated way, dependant on the needs and context as this will be ever-changing. Thus, a recommendation from the research suggests not to regard PL in terms of exclusive strategies.

5.4.2 Future Research

There is a need for further longitudinal studies to consider how PL informed practice can be embedded as a tangible concept in PE to support lifelong engagement in PA. While the epidemic of physical inactivity pervades, further research is certainly warranted in this field. This study also underpins the complexities at play in establishing what PL looks like as tangible strategies of practice. Future research is then warranted in exploring the extent to which these strategies can be considered as a PL informed approach and go in some way towards characterising PL informed practice. Future research may also look to examine how individual components of PL are included in these strategies in practice in such an integrated and interrelated concept. In relation to monitoring progress of PL, assessment is pertinent to this area of research and should be explored further with an intention of capturing the entirety of what PL involves. Assessment for learning and self-assessment are key principles of assessment that can potentially inform how the assessment of PL and mapping progress has room to grow in practice. Perhaps there is space to weave these fields together in future research endeavours.

Finally, the viability of PL as a concept, in what is sometimes an assessment-driven and high-stakes environment in Irish education, needs more extensive research. This future research is needed to determine the viability of PL mapping and PL strategies in PE and how this may contribute to the development of PL on a wider scale. As aforementioned, how PL fits into the puzzle of PE is then pivotal and merits further research in this current era of curriculum change. While it remained beyond the scope of this research, it may also be prudent for future research endeavours to consider the needs of all relevant parties when considering the place of PL and develop the concept in a cross-sectoral way.

5.5 Strengths and Limitations

Acknowledging the limitations of this research is an important step to outline any potential deficiencies that influence its outcome. It is not my intention for this research to make claims of generalisability, transferability or replicability of findings. This research does, however, have extensity (Webb, 1961) and affords invaluable insights into the potential for PL to inform practice across numerous different contexts.

The first limitation of the study pertains to the focus of PE lessons. It is important to acknowledge that Games and Athletics were the main PE strands engaged in for the purpose of this research. These were strands in which I could intentionally develop PL informed strategies. Perhaps it may be worthwhile to consider PL and PA in a multitude of strands such as Dance and Gymnastics in future research endeavours. While it is widely accepted that PL should be assessed beyond that of PE in school (Barnett et al., 2018), this remained beyond the scope of this research and can be considered a limitation of the study. Parents are key drivers of promoting PA practices for their children (Wilk et al., 2018) and perhaps it is important that parental insight is included in future research to gain insight into how PL is supported beyond the school day. This extends on a limitation of the study as I did not engage different parties of interest in my research journey. How PL is understood and embedded in different contexts and by different parties of interest could prove invaluable to developing PL informed practice in PE and educational settings. The final limitation I acknowledge is related to the guiding definitions of this research. This research is guided by Whitehead's (2019) definition and philosophy of PL. However, I relate the PL domains to the Canadian Consensus Statement (2015) on PL to include the behavioural domain and overarching psychological domain for Whitehead's (2019) cognitive and affective components of PL.

However, I believe that the definition that informs and guides my research is the most appropriate and the extended PL domains serve the process well. This could also be considered

as a strength of my research as I move beyond a single definition of PL to embed my interpretation of what leading practice looks like, informed by the extensive literature. Another strength of the research includes considering the components of PL in an integrated way in place of being separate entities. As Whitehead (2019) articulates, separation negates the holistic concept of PL. Separation in the presentation and analysis of data, however, is important to better understand what the intervention accomplished (Peers, 2020). However, I recognise that this may not fully account for what Edwards et al. (2018) denote as the complexities of interactions between the different components of PL (Edwards et al., 2018 cited in Peers, 2020). While these strengths and limitations are important to consider in the interpretation of this research journey, I believe the research contributes to an important epistemological understanding in the field of PL.

5.6 Dissemination of my Research

The writing up of my action research is only the start of sharing my story. I highly value the potential contribution of my research to the fields of PL, PE and PA. Firstly, I have shared my research with my fellow cohorts in Froebel Dept., Maynooth University. This research will be published in the *Maynooth University Mural Research Library*. I endeavour to share my research in professional learning communities, peer-reviewed academic journals and through professional development centres to disseminate my research widely and support current research, policy development and leading practices in PL and PE. I will also share my research with my colleagues in the hope that it will be the educative influence I envisage and enrich PE in ways that I cannot yet envisage. I am committed to and have a passion for PL, PE and PA and am incredibly excited to put my research out there. This research journey has piqued my interest in the field of PL and is perhaps the springboard to pursue PL informed practice in future research endeavours.

5.7 Claim to Knowledge

In this action research self-study, I explored how I could embed PL informed practice in PE. In this section, I make a claim to knowledge that has emerged from my own living educational theory (Whitehead, 2018). My claim to knowledge finds that PL informed practice is very much a disposition in an intentional model of PE that is individualised, valued, holds personal significance, participatory for all children and, above all else, educative across the domains of PL. I connect my claim to knowledge to my values as it is pivotal for me that this disposition is respectful to, democratic towards and voiceful for children. I further my claim to knowledge to recognise that my PE lessons, underpinned by PL in its entirety, support a lasting impact on lifelong engagement in PA. While a commitment to the strategies took time, the research has informed the effective design and tangible delivery of PL informed practice through strategies that were conceptually aligned and coherent with the concept of PL. My claim to knowledge not only supports the value and purpose of PE but affords children the essential springboard and skill set for participating in lifelong PA in developing a PL disposition.

I can also state my claim to knowledge that PL is underdeveloped at primary level in an Irish educational context. What my living theory highlights is the space and potential for PL to grow without being overly prescriptive in practice. However, progress has been limited to date at best. This research then moves primary PE forward in an Irish educational context as the flexibility to adapt the key principles of PL (Durdin-Myers et al., 2018) was considered a strength to dive into the deep ocean of PL.

5.8 Conclusion

Practice, curriculum and policy development are setting the stage for current reform in PE in the Irish educational landscape. I treaded lightly on the terrain of PL, ensuring the opportunity to enhance and advance PE was not intercepted by a drive towards measurable improvements

or curricular standards. I embraced PL and all of the accompanying uncertainty to consider where I am in PE, where I have come from and where I am going to better support lifelong engagement in PA. I am incredibly proud of my action research journey. This research journey has enthused and excited me about the potential of PL to instil a lifelong love of PA in the children I teach. What I have researched and advocated for is for the entirety of PL as a concept to inform practice and supersede an era of performative sport (Shilling, 2008 cited in Durden-Myers, 2020), in my practice at least. While I found the concept of PL daunting, its vision of promoting lifelong PA is an exciting prospect beaming with potential. The potential power of PL then lies not in the hands of policy, changes to the curriculum or sporting bodies but in the hands of teachers so that PE is, first and foremost, underpinned by PL. This is then a call to action for more evidence-based research to align PE more fully to the values, purpose and delivery of PL as a tangible concept in the pursuit of lifelong PA.

5.9 Final Thoughts

I am fascinated by the area of PL. PL has ignited a passion and commitment to live to my values in PE. I am proud to claim that I am living closer to my core educational values. My values have not only become central to my beliefs in how to teach PE but have had a momentous and lasting impact on my practice. I very much regard my core values as the “relevant and valuable touchstones” (Murray, 2018: 215) I alluded to at the very beginning of my research. My Froebelian background has also proved an important epistemological consideration to inform my research journey. The contemporary relevance of Froebelian principles is clear. My Froebelian identity speaks volumes throughout this research journey and advocates for PL informed PE that is respectful, democratic and voiceful in its approach through embedding strategies that not only promote lifelong engagement in PA but lifelong learning in seeing PL as a journey. I will continue to fly the Froebelian flag in the name of PL,

one that wavers from my personal professionalism and sparks a little bit of magic in PE. And as I recall from my primary school days,

“Those who don’t believe in magic will never find it” (Dahl, 2009: 32).

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Appendices

Appendix A: Ethical Declaration by Researcher



Maynooth University Froebel Department of Primary and Early Childhood Education

Declaration by Researcher

This declaration must be signed by the applicant(s)

I acknowledge(s) and agree that:

- a) It is my sole responsibility and obligation to comply with all Irish and EU legislation relevant to this project.
- b) I will comply with Irish and EU legislation relevant to this project.
- c) That the research will be conducted in accordance with the Maynooth University Research Ethics Policy.
- d) That the research will be conducted in accordance with the Maynooth University Research Integrity Policy.
- e) That the research will not commence until ethical approval has been granted by the Research and Ethics committee in the Froebel Department of Primary and Early Childhood Education.

Signature

Seán Stafford

Seán Stafford

Date: 01/12/2021

Appendix B: Letters to the Principal and BOM



Maynooth University Froebel Department of Primary and Early Childhood Education

Dear Principal,

I am a student on the Master of Education programme at Maynooth University Froebel Department of Primary and Early Childhood Education. As part of my degree I am exploring action research self-study to inform and enhance my practice through critical reflection. The focus of my action research self-study is on how I can embed physical literacy in physical education practice at primary level.

In order to do this, I intend to use research methods of journaling, observation, content and analysis of work and active participation, open-ended questionnaires, semi-structured interviews and focus groups and audio-recordings. All data will be held securely and no names will be included.

You are being asked for your consent to permit me, Seán Stafford, to participate in this action research self-study. I request permission to obtain informed assent from children and informed consent from their gatekeepers. I intend on informing the potential participants and gatekeepers of the action research verbally and in a plain and unbiased language statement. An opt-in or opt-out clause will be offered to the potential participants. Informed consent will also be obtained for audio-recording participants.

In all cases the data that is collected will be treated with the utmost confidentiality, held securely and the analysis will be reported anonymously so that no names are included. The data captured will only be used for the purpose of the research and I will uphold Maynooth University's research guidelines and ethical considerations.

Thanking you in advance.

Yours sincerely,

Seán Stafford

Seán Stafford



**Maynooth University Froebel Department of
Primary and Early Childhood Education**

PRINCIPAL CONSENT FORM

I understand the aforementioned information and give permission to Seán Stafford to seek consent from a child and his/her parent(s)/guardian(s) to participate in Action Research self-study as part of the Master of Education: Research in Practice programme.

Signed: _____ (Principal)

Signed: _____ (Researcher)

School Name: _____

Date: _____

Appendix C: Information Letter to Parent(s)/ Guardian(s)



**Maynooth University Froebel Department of
Primary and Early Childhood Education**

Dear Parent(s)/ Guardian(s)

I am a student on the Master of Education programme at Froebel Department, Maynooth University. As part of my degree I am involved in a research thesis. The focus of my thesis is on how I can embed the concept of physical literacy in physical education practice at primary level.

In order to do this, I intend to use research methods of journaling, observation, content and analysis of work and active participation, open-ended questionnaires, semi-structured interviews and audio-recordings. All data will be held securely and no names will be included. In all cases the data that is collected will be treated with the utmost confidentiality. The child's name and the name of the school will not be included in the thesis. The data will only be used for the purpose of the research and in accordance with University guidelines and ethical considerations. Your child will also maintain their right to withdraw at any point.

I would like to invite you and your child to give permission for your child to take part in this action research self-study. The consent and assent forms are attached.

If you need any additional information please do not hesitate to contact me by phone.

Thanking you in advance.

Yours sincerely,

Seán Stafford

Seán Stafford



**Maynooth University Froebel Department of
Primary and Early Childhood Education**

PARENT / GUARDIAN CONSENT FORM

I have read and I understand the information attached to this letter. I have also read the plain language form alongside my child who is happy to participate in the action research self-study. I voluntarily agree to give permission to Mr Stafford for the participation of my child in this action research self-study.

Name of Child: _____

Signed: _____ (Signature of Parent/ Guardian)

Signed: _____ (Signature of Parent/ Guardian)

Signed: _____ (Signature of Child)

Date: _____

Appendix D: Plain Language Form and Child's Assent



**Maynooth University Froebel Department of
Primary and Early Childhood Education**

PLAIN LANGUAGE FORM

Hello Everyone,

I am looking to find out how children can develop their physical literacy in PE.

Physical literacy is about our movement skills and motivation in PE.

I would love to find out more about this with your class. I hope to work with your class twice a week in PE. I will then observe, journal, hold discussions to audio-record and ask you to complete a questionnaire. We will also be recording our physical literacy progress.

If you are happy for me to do so, please sign the letters I have sent home to you and your Parent(s)/ Guardian(s). Participation for this will always remain up to you.

I have also asked your Parent(s)/ Guardian(s) to talk about this with you. If you have any other questions, I would be more than happy to answer them in school.

Thank you,

Mr Stafford



**Maynooth University Froebel Department of
Primary and Early Childhood Education**

CHILD ASSENT TO PARTICIPATE

My Parent(s) / Guardian(s) has read the information sheet with me.

I am happy to participate in Mr Stafford's research.

Signed: _____ (Child's Name in BLOCK Capitals)

Signed: _____ (Signature of Child)

Date: _____

Appendix E: How Can I Improve my Practice?

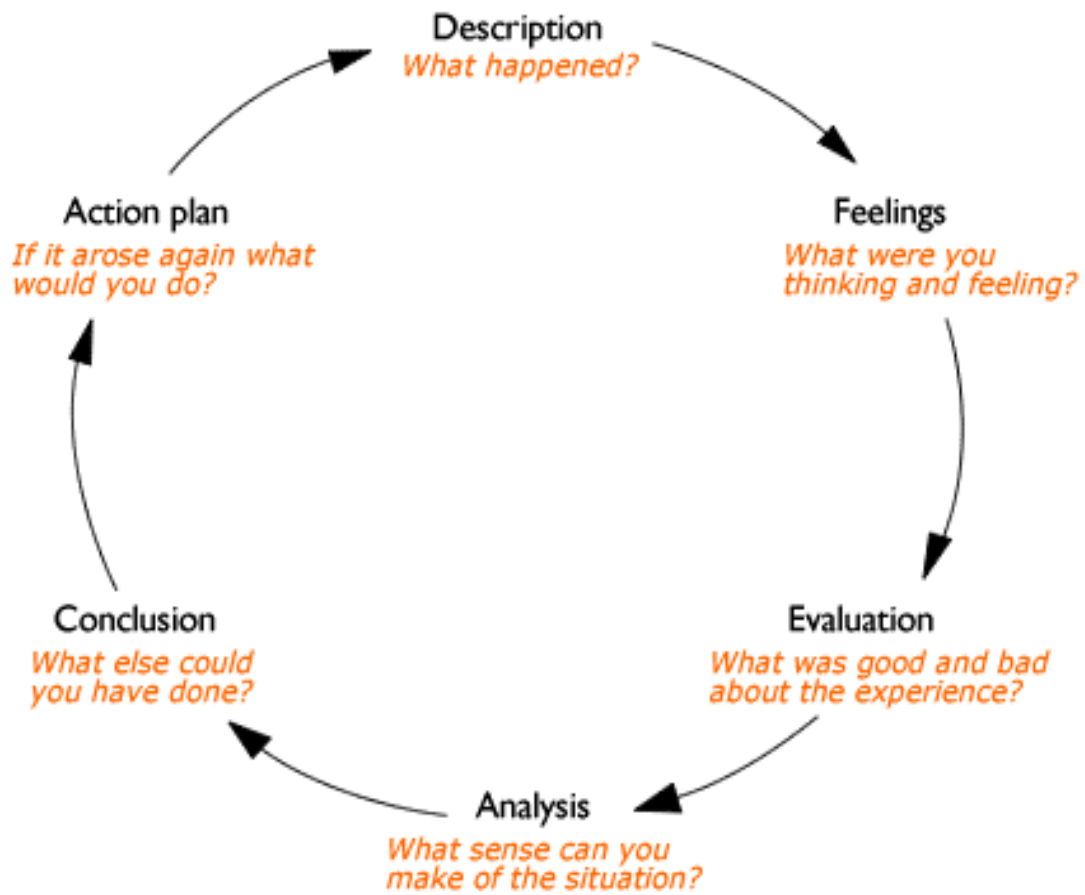
The structure of the action plan will guide me in asking “how I can improve my practice”

(Whitehead, 2018: 1).

Whitehead’s (1989) Structure

- What is my concern?
- Why am I concerned?
- How do I gather evidence to show reasons for my concerns?
- What do I do about the situation?
- How will I check that any conclusions I come to are reasonably fair and accurate?
- How do I evaluate the validity of my account of learning?
- How do I modify my practice in light of my evaluation?
- How do I explain the significance of my work?

Appendix F: Reflective Framework



Gibbs' (1988) Reflective cycle

Appendix G: Mapping our Physical Literacy Progress

	Three things that I have done well in PE (Your strengths)
	What I learnt today in PE
	One wish (one area of PE that you hope to work on)
	What can you do to help you improve on this?

Appendix H: Mapping Physical Literacy in Different Domains



Physical Literacy

Source: Kid Do: Improve Your Move (n.d.)

How much motivational fuel do you have in your energy tank?



Before



After

Appendix J: Semi-Structured Interview Guiding Questions

PE

Interested? How did you become interested?

Sport (interests and activity levels)

PE and sport in the school

- Tell me about PE and PA in your school
- Is PE learning discussed in the classroom?
- What do you think are the qualities of good PE?

PE Assessment

- How do you assess what you learn in PE?
- Is it important to assess what you learn in PE?
- Is learning in PE as important as all of the subject areas?

Moving towards PL in PE

- When you think of PL, what does it mean to you?
- What are fundamental movement skills?
- Explain what these are prior to next question. Part of PL.
- Do you think FMS can be developed in PE?
- Can you tell me more about what makes PE motivating / enjoyable . . .?
- In this project you are...is this how you usually do it?
- Who usually plays prominent role in PE and in assessment? Elaborate Why?
- How do you feel about mapping our physical literacy journey?
- What do you think this could look like?
- What would be successful outcome for mapping out our PL journey?

Concluding questions

- Now each of you are going to get a turn leading the interview. Participants will be given think time to ask the group any other questions / anything else they would like to add for participants and interviewer to respond to.

Giving the participants sufficient time to think of a question(s), we will answer and discuss the questions to elicit more open discussion and potential opportunities for discovery.

Appendix K: Journal Reflection Snapshots

Subject(s): Physical Education	Title of Lesson: Capture the Flag
Class	Third and Fourth Class
Strand(s) Strand unit(s):	Games Creating and Playing Games Understanding and Application of Games

Learning Objective(s): The child should be enabled to

Physical Domain

- Demonstrate short acceleration in a game context

Psychological Domain (Cognitive and Affective Domains)

- Develop an increased understanding of use of space
- Develop problem-solving and decision-making strategies
- Describe what tactics are important when and why

Behavioural

- Participate in earnest
- Communicate to team members effectively
- Identify qualities of good teamwork
- Work as a member of their team

Journal Entry Snapshot: Reflection on Lesson Content

A greater knowledge and understanding of PL and its domains opened the space to see what areas of PL I was hitting while also highlighting the imbalances to shape the direction of future lessons. While including a balance of all domains in all lessons was complex in and of itself, key elements of each domain were emphasised and considered to greater and lesser extents in PE lessons. On reflection and on discussion with my critical friend, perhaps organising learning outcomes in domains in place of strand unit(s) will also be more beneficial to the development of PL. This will reflect my thinking in terms of a PL approach and developing a PL disposition towards PE.

Journal Entry Snapshot: Developing the Skill of Running

While we focused on the strand of Games and its Strand Units, the children were also developing the skills and qualities associated with athletics. For example, different race starts were used continuously throughout 'Electric Tag' and numerous other games. As the children were running today in small-sided games, I noticed numerous children who were very flat-footed while running, used small strides and their arms were in a fixed position. In the classroom, we then discussed what good running looks like and talked about successful running techniques . . . I initially felt content that I was teaching. Teaching PE that was informed by PL. We were learning and taking on board new ideas . . . On further reflection, perhaps affording children the opportunity to put these techniques in practice would be an invaluable learning opportunity. Opening the space and time for this discussion within the physical PE lesson may then be beneficial going forward. This would also need to be monitored by the children and, when it is possible, I can guide them to improve.

Appendix L: Questionnaire Response Samples

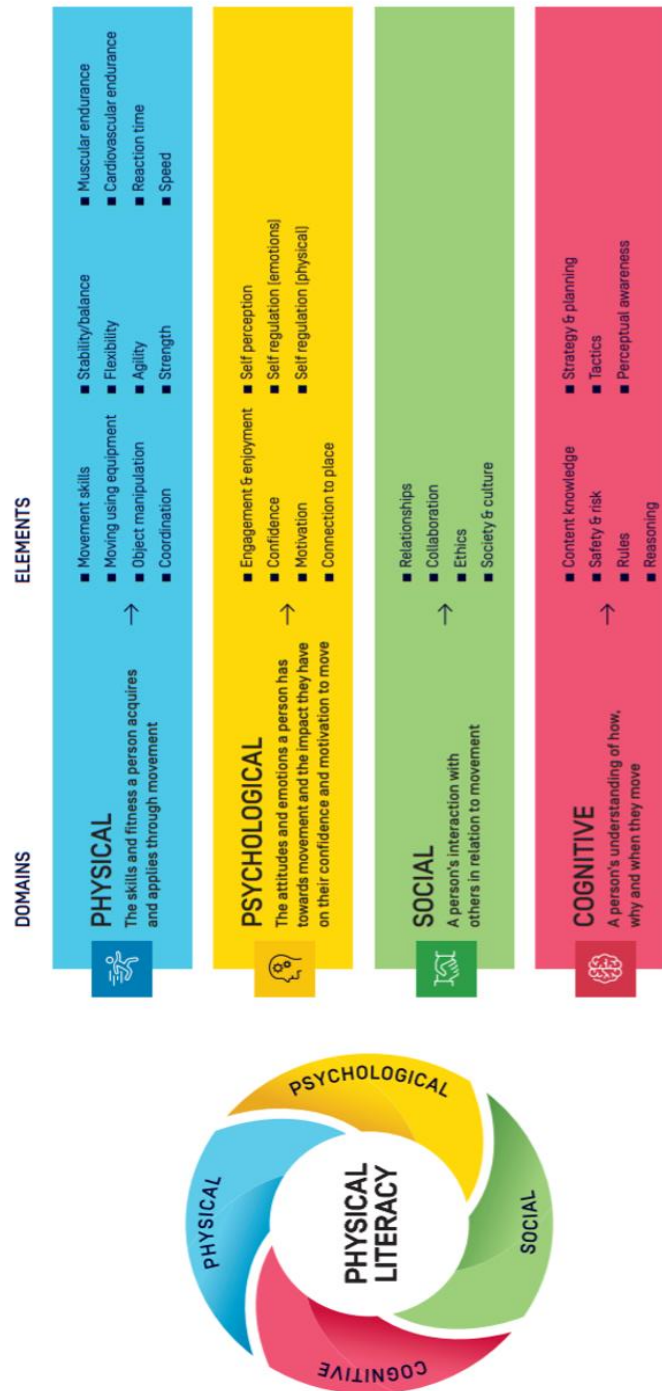
	What is Physical Literacy?
	How well you can run and jump.
	Is Physical Literacy included in PE lessons?
	Yes because it is what you are good in P.E.
	How is Physical Literacy included in Mr Stafford's PE Project?
	You have to work with your friends and give it your all.
	Are movement skills important in PE?
	yes you need to run and jump and walk and get your body fit
	Is Motivation and enjoyment important in PE?
	yes that's what makes it fun and you want to do it all the time

Questionnaire, L.E., 10 year old boy

	What makes PE enjoyable and motivating for you?
	the games and playing with your friends.
	Is knowledge in PE and of PE important?
	yes because you have to know what you are doing
	It is important to or it is not important to share and discuss what we learn in PE because ... (Please circle your option)
	It is important to
	Good qualities of someone who is physically literate are ...
	being fast and power full.
	Any other thoughts related to physical literacy or physical education to share...
	are try your hardest and dont give up.

Questionnaire, L.E., 10 year old boy

Appendix M: Physical Literacy Framework Australia



Physical Literacy Framework Australia

Source: Sport Australia (2019) Licensed from the Australian Sports Commission under a Creative Commons Attribution 3.0 Australia License

IDENTIFYING THE STAGES OF DEVELOPMENT

Exploring Stage

Tréimhse taisceálaíochta



At this stage, pupils enjoy exploring different speeds of running, in a variety of directions and on various levels. Characteristics of running at the exploring stage:

- knee lift and kick back is limited
- arm swing is wild and away from the body, with 90 degrees not being maintained at the elbow
- no obvious flight phase
- head is unstable.

Developing stage

Tréimhse forbraíochta



At this stage, pupils practise running efficiently at different speeds in different directions. The skill is applied to a variety of mini games and activities.

Characteristics of running at the developing stage:

- knee lift is higher but not yet parallel. Back leg is extended to push off and give more momentum
- arm swing increases, is closer to the body and is more in tune with leg movement
- limited flight phase.

Mastering stage

Tréimhse Máistrithe



At this stage, pupils are running with efficient technique and applying the skill in a variety of contexts such as, running for a sustained period of time, sprinting, engaging in dodging and evading activities and applying the skill naturally in a sporting context. Characteristics of running at the mastering stage:

- stride is a good length, arms and legs are in rhythm and head is stable
- high knee lift and leg kickback is evident
- obvious flight phase
- feet land along a narrow pathway.

Development of Running

Source: PDST *Move Well, Move Often*, (2017)

TEACHING POINTS FOR RUNNING



Hold the head up, stable and eyes looking forward



Elbows bent at 90 degrees



Drive arms backwards and forwards vigorously in opposition to the legs. Ensure arms stay close to the body, 90 degree angle remains at the elbow and the drive comes from the shoulders



High knee lift with the thigh almost parallel to the ground

Teaching Points for Running

Source: PDST *Move Well, Move Often*, (2017)

TEACHING POINTS FOR RUNNING



The kick back should be close to the buttocks (at least 90 degrees)



Push off from the ball of the foot and land on the heel of the foot initially, however, when the run speed increases contact will be made predominantly with the ball of the foot only



Lean slightly forward when accelerating and slightly backwards when slowing down

Teaching Points for Running

Source: PDST *Move Well, Move Often*, (2017)