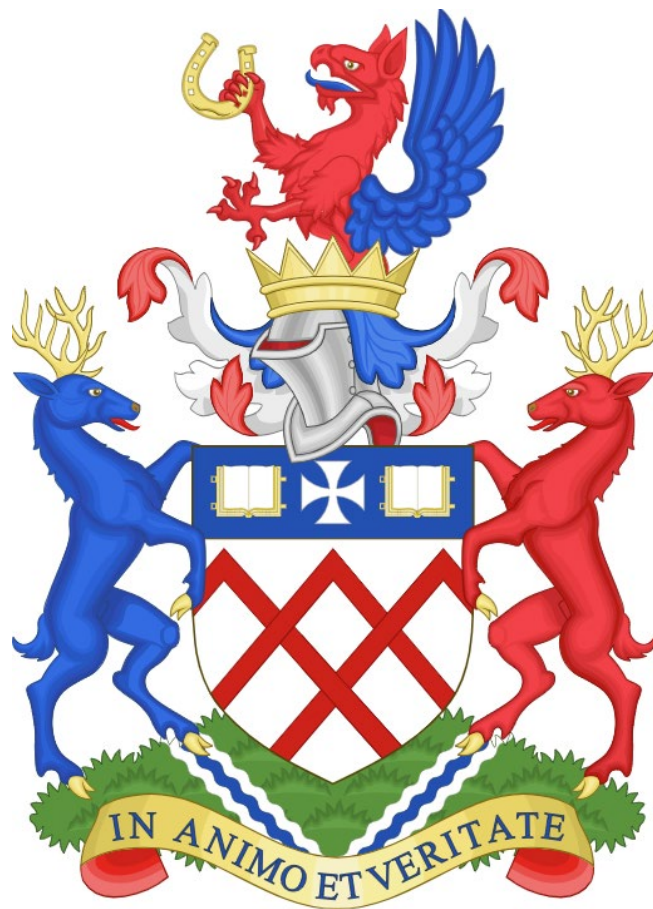


Implementing Lifestyle Sports in Schools through Meaningful Physical Education: A Mixed Methods Approach

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Abstract

Background

Physical education (PE) has been criticised for not inclusively engaging all pupils in meaningful physical activity experiences. There is debate as to whether competitive sports dominance is the most effective vehicle through which engagement in physical activity (PA) is best achieved. Lifestyle sports (LS), such as parkour and CrossFit, offer a potential alternative, promoting inclusivity, personal relevance, and challenge. Pedagogical approaches rooted in self-determination theory (SDT), such as meaningful physical education (MPE), are commonly promoted as impactful teaching approaches. This study investigates the barriers and enablers to integrating LS into PE, the impact of LS on pupils' experiences (explicitly relating to MPE), and the possible implications for curriculum design and pedagogical practice in secondary schools based on the findings.

Methods

An action research intervention where two eight-lesson units of LS sports (parkour and a kickboxing/CrossFit hybrid) were implemented in two separate English secondary schools provided the context for the study. The researcher taught the units in the role of teacher-researcher. A mixed-methods approach was adopted, involving quantitative and qualitative methods before, during and after the units. Data was drawn from all stakeholders (pupils $n=50$, observing teacher $n=2$, and the single teacher-researcher). Quantitative data assessed changes in pupils' perceptions of meaningfulness comparing regular PE to their experiences in the units, while qualitative data (lesson observations, researcher reflective diary, interviews with teachers and focus groups with pupils) provided more detailed insights into the views of pupils, teachers, and the researcher.

Results and Discussion

Findings demonstrated that LS units combined with the MPE approach fostered enjoyment and inclusivity, particularly for female and less active pupils, with positive responses from most pupils in many key areas of MPE. Novelty emerged as a potential new feature of MPE. Barriers to implementation included entrenched traditional PE practices, resource constraints, and curriculum overcrowding, whilst a supportive departmental ethos and targeted professional development were key enablers. The use of democratic pedagogies, goal setting and reflection played critical roles in maximising the effectiveness of the intervention.

Conclusion

This study highlights LS's transformative potential in making PE more inclusive and relevant and adds further support to the use of MPE as a vision and framework for PE delivery. By addressing systemic barriers, such as school/department culture, and aligning practice with MPE principles, LS can diversify the PE curriculum and foster positive and engaging experiences for many pupils.

Declaration

I declare that the work in this thesis was carried out in accordance with the regulations of the University of Gloucestershire and is original except where indicated by specific reference in the text.

No part of the thesis has been submitted as part of any other academic award. The thesis has not been presented to any other educational institution in the United Kingdom or overseas.

Any views expressed in the thesis are those of the author and in no way represent those of the University.

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Signed:

A solid black rectangular box used to redact the author's signature.

Date 5th June 2025

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List of Acronyms

- AIESEP: Association Internationale des Ecoles Supérieures d'Education Physique (International Association for Physical Education in Higher Education)
- BERA: British Educational Research Association
- BMI: Body Mass Index
- DBS: Disclosure and Barring Service
- DfE: Department for Education

GDPR: General Data Protection Regulation
GKT: Gatekeeper Teacher(s)
HoPE: Head of PE
LS: Lifestyle Sports
MM: Mixed Methods
MPE: Meaningful Physical Education
NHS: National Health Service
OFSTED: Office for Standards in Education, Children's Services and Skills
PA: Physical Activity
PE: Physical Education
PL: Physical Literacy
RO: Research Objective
SDT: Self-Determination Theory
SEN: Special Educational Needs
SIMS: Situational Motivation Scale
SPSS: Statistical Package for the Social Sciences
TR: Teacher-Researcher
WHO: World Health Organization
WOD: Workout of the Day

Chapter One – Introduction

The introduction chapter provides an overview of the research project, outlining its rationale, research aims, and significance. Furthermore, it provides an overview of the researcher's positionality and some brief contextual information linked to the study. Finally, the chapter provides an overview of the thesis structure to aid the reader in understanding its construction.

1.1 Research Rationale

This study explores the integration of lifestyle sports (LS) within physical education (PE) curricula in the form of an action research intervention delivered using a meaningful PE approach (Beni et al., 2017; Fletcher & Ni Chróinín, 2021) in two English secondary schools. The research rationale and subsequent literature review provide some context to these issues.

The health and well-being of young people are significant global concerns, with participation in physical activity (PA) recognised as crucial for improving physical, mental, and social health (Bull et al., 2020; World Health Organisation [WHO], 2020). Despite efforts, including the World Health Organization's (WHO) Global Action Plan on PA (2018-2030) (WHO, 2018) and national strategies like the UK's "Get Active" policy (Department for Culture, Media and Sport [DCMS], 2023) PA levels among youth remain alarmingly low. In the UK, recent figures from Sport England (2024) show fewer than half of children meet the recommended 60 minutes of daily activity (Sport England, 2024), and obesity rates are rising, with one-third of children classified as overweight by the end of primary school (National Health Service [NHS], 2024). Declines in physical fitness and increases in sedentary behaviour exacerbate these issues (Carbone et al., 2019). At the same time, mental health challenges among young people are growing (NHS, 2022), with PA shown to offer protective benefits (Biddle & Vergeer, 2020).

Schools and PE are often positioned as critical settings for fostering lifelong PA habits (Biddle et al., 2021). PE aims to help young people lead healthy, active lives by developing skills, confidence, and enjoyment in movement. Whilst there has been a growing evidence base of good practice in recent years, such as the adoption of a physical literacy-informed approach to PE (Durden-Myers & Whitehead, 2018), more child-centred pedagogies (Lewis, 2014), and the use of pedagogical models (Casey & McPhail, 2018). A large and growing body of work suggests current practices in PE are failing to meet the needs of young people (e.g. Elliot et al., 2021; Stolz & Kirk, 2015; Sullivan, 2021). Within this literature, current PE practices face criticism for their limited success in achieving the goal of promoting a positive relationship with PA. Traditional sport-focused curricula often fail to engage students or align with their evolving interests, which have shifted toward lifestyle and informal activities like cycling, swimming, and fitness-related exercises (Beaumont & Warburton, 2020;

Gilchrist & Wheaton, 2016; Janeckova et al., 2021). The perpetuation of outdated teaching methods is often linked to occupational socialisation, where PE teachers replicate traditional practices based on their own experiences and professional environments, limiting innovation and change (Curtner-Smith, 2017; Lawson, 1983). Therefore, PE is often viewed as stubborn and resistant to change and in need of modernisation, a point echoed in recent work from Stidder (2023, p. 154), who stated that “those who do not learn from history are destined to repeat it” emphasising the need to try new approaches and activities that could be more effective in promoting positive relationships with PA amongst young people.

Research also underscores the impact of PE experiences on future PA habits (Ladwig et al., 2018). Positive PE experiences, characterised by enjoyment, competence, and relevance, are associated with higher levels of PA in adulthood. Conversely, negative experiences, including feelings of alienation, embarrassment, or boredom, can deter future participation (Ladwig et al., 2018). Spencer-Cavaliere and Rintoul (2012) and, more recently, Kim (2022) identify several factors contributing to such alienation: lack of control over activities, perceived irrelevance, and negative social interactions like bullying or peer rejection. These issues highlight the disconnection between traditional PE practices and meaningful engagement in PA beyond school.

Scholars, including Kirk (2010, 2012) and, more recently, Stidder (2023), critique the inability of traditional PE to adapt to the needs of 21st-century learners, with a range of recent literature highlighting a lack of effectiveness in current PE practice due to outdated curricula and autocratic pedagogies that silence young people’s voices (e.g. Hemingway, 2024; Hortigüela-Alcalá et al., 2021; Otundo & Garn, 2019). Guiding frameworks, such as physical literacy (Whitehead, 2010), self-determination theory (SDT) (Deci & Ryan, 1985), and MPE (Fletcher et al., 2021), offer promising alternatives by emphasising personal engagement, autonomy, and positive experiences in PE.

To address these challenges, PE must evolve into a more inclusive and pupil-centred practice, integrating diverse activities that resonate with young people's interests and needs (Beaumont & Warburton, 2020; Griggs & Fleet, 2021) alongside more inclusive pedagogies (Lynch et al., 2021). By doing so, PE can better fulfil its potential to foster lifelong habits of PA and contribute meaningfully to the physical and mental well-being of future generations. The present study explores how such transformations can be realised by using the example of LS, a high-growth activity area in many societies (Gilchrist & Wheaton, 2016; Janeckova et al., 2021), delivered through PE approach in an action research intervention within two UK secondary schools. This involved delivering two units of LS (one in each school) and collecting data before, during, and after the unit. The first unit was a parkour intervention delivered in a mixed-sex year 8 (age 12-13 years) class, whilst the second unit was a CrossFit/kickboxing hybrid unit delivered in a mixed-sex year 7 class (age 11-12 years), both

schools were based in Southwest England. A detailed description of the research contexts and the interventions are included in the Methodology chapter.

1.2 Research Aim and Objectives

The overall aim of this project is to explore the potential of integrating LS within physical education to enhance meaningful experiences for young people while identifying the barriers and enablers to sustainable curriculum change.

To guide the project, the following research objectives were created:

- Critically analyse the views of pupils as to what extent current PE provides elements of meaningful experiences.
- Evaluate the effectiveness of a LS intervention on the creation of potentially meaningful experiences for young people.
- Critically analyse the barriers and enablers to change to integrate LS within PE curricula.

The research is original in that it is (at the time of writing) the only study utilising meaningful PE in an English secondary school context (nearly all the meaningful PE work to date has been with primary-age children). It is also unique in collecting data directly from young people centred on meaningful PE and is one of only a few LS action research projects that have been implemented in PE. The multi-mixed method approach taken also adds novelty and robustness to the study, as does utilising quantitative measures of meaningful PE, with just one study implementing this to date (Alshuraymi & Hastie, 2024).

1.3 Structure of the Thesis

Following this introductory chapter, there are eight more chapters to lead the reader on a logical journey through the study. A brief overview of each chapter is outlined below:

Chapter Two: Review of Literature - This chapter explores and critiques a variety of seminal historical pieces and contemporary literature linked to the topic area. It also explores the key theoretical frameworks/models that ground the study, including physical literacy, self-determination theory, and meaningful PE.

Chapter Three: Methodology - The methodology provides an in-depth overview of the study's research philosophy (pragmatism), research contexts, and methods, including data collection through different phases (pre-unit, during-unit, and post-unit), data analysis, ethical considerations, and trustworthiness.

Chapter Four: Development of the Meaningful Physical Education Questionnaire – This chapter provides a detailed insight into the design, testing, and piloting of the novel tool used to assess MPE constructs within the study.

Chapter Five: Results and Findings Introduction - This chapter introduces the results and discussion chapters that follow (chapters six-nine), highlighting the key themes drawn from the data and providing a schematic overview of major themes and sub-themes, along with links to the research objectives.

Chapter Six: Meaningful Physical Education - This chapter utilises meaningful PE as a framework to analyse experiences of both regular PE lessons and the intervention units from the perspectives of pupils, observing teachers in schools and the teacher-researcher.

Chapter Seven: The Potential for Lifestyle Sports in Physical Education - Chapter six provides an in-depth analysis of the study's use of LS and combines both quantitative and qualitative data to explore this. It also considers some potential improvements that could have made the intervention more effective for some pupils.

Chapter Eight: Implementing Change in Physical Education - This chapter highlights and analyses some of the enablers and barriers to change within PE that become apparent during the study. It frames this using practice architectures (Kemmis, 2012) and Kotter's (1996) model of change.

Chapter Nine: Being a Teacher-Researcher - Given the researcher's somewhat novel position as a teacher within the intervention, this chapter seeks to explore and analyse this role in greater depth. It also provides guidance for future teacher-researchers operating in similar circumstances.

Chapter Ten: Conclusion - This final chapter brings together the significant findings from the study related to the research objectives. It also considers the thesis's contributions to practice alongside its limitations and recommendations for future work in this area.

1.4 Researcher Role and Positionality

In all research, the role of the researcher's positionality and reflexivity is paramount, as these elements shape various aspects of a project, from the inception of the research focus to data collection, analysis, and the conclusions drawn (Holmes, 2020). Reflexivity, an ongoing self-assessment of the researcher's

identity and its potential impact on different components of the research process, including research design, methodologies, analysis, ontology, and epistemology (Basit, 2013), plays a crucial role in this. Reflexivity aims to bolster the rigour and credibility of the research by acknowledging the inherent limitations in the generated knowledge. Practising reflexivity throughout the research process necessitates the researcher to be cognisant of how their perspective and identity may influence all aspects of the investigation and to critically assess the implications (Hamdan, 2009). Reflexivity is vital for identifying and addressing potential unintentional biases that may affect the research (Braun & Clarke, 2013). Through reflexive practice, researchers can cultivate a heightened awareness of ethical considerations and issues related to knowledge production (Berger, 2013). More recently, Braun and Clarke (2021) highlighted how it is not possible to eliminate all elements of bias, as knowledge generation is inherently subjective and situated. Therefore, by providing a detailed description of my beliefs, role and background, I aim to provide readers with insight so they can view my interpretations with this in mind.

The importance of focusing on positionality and reflexivity is heightened in this research project, as I actively assumed a central role within the action research elements as a teacher-researcher (Casey et al., 2018; Elliot, 2024; Stenhouse, 1975). In this role, I was not just a passive observer but the class teacher for the units delivered in schools. In his seminal work on the teacher-researcher role, Stenhouse (1975) posited that curriculum development has minimal chance of success unless it involves teachers and practitioners in studying their practice through research. This study aimed to do precisely that, with my active role as the class teacher being central to the project.

Understanding my career journey and views is vital to engaging with this thesis. My path to this point is one of profound dedication to PE, having served as a PE teacher and head of PE for a decade from [2004-2014]. This passion continued to guide me, leading to my previous role as a PE teacher educator at a university in southwest England for the past ten years (2014-2024). It is within these roles that my values and philosophy, deeply rooted in a love for PE, have shaped my practice and views.

1.4.1 Beliefs, Philosophy, Vision and Values

This philosophy statement explores my views on the core purpose of PE alongside the fundamental values and beliefs underpinning how I believe PE should be taught. Everly and Flemons (2020) define beliefs as propositions, ideas, or views that individuals hold that underpin their practice. They argue that beliefs are vital as they shape much of our decision-making regarding our role's purpose and how we execute that purpose through everyday actions in perception (how we view the world), perspective (how we interpret those views), and pedagogy (how we implement actions as a teacher). Sympas et

al. (2017) highlight the complexity of teacher beliefs and their subsequent impact on teachers' actions, noting the strong influence beliefs have on teaching methods. However, they suggest that teachers' articulated beliefs do not always align with their actions in practice.

My beliefs have been heavily shaped by my experiences in PE (Lawson, 1983), which were largely positive as a youngster and further developed during my university education and teaching experience in schools and teacher training (Jess et al., 2021). My philosophy related to the purpose of PE aligns with a physical literacy-informed approach (Lundvall, 2021), where PE should develop learners' motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for maintaining purposeful physical pursuits throughout their life (Whitehead, 2013). I also firmly believe that the health benefits derived from PE and PA are just a by-product of the joy and meaning these activities can bring to our lives (Kretchmar, 2006). Essentially, I want pupils to leave their education with a positive outlook towards PA and the knowledge and skills to engage in it, gaining the multitude of benefits that PA offers across all learning domains (Bailey, 2006). This is exemplified by pupils identifying their experiences within PE as meaningful (Ní Chróinín et al., 2019; Beni et al., 2017), recognising these experiences as personally significant. As Quennerstedt (2019) noted, teaching is a continuous decision-making process involving the why, what, and how. Therefore, being aware of my philosophy, vision, and values provides a clear foundation for my decisions regarding both content and pedagogy.

1.4.2 Being an Insider/Outsider

A researcher is considered an 'insider' when they share attributes with the study participants and an 'outsider' when they do not belong to the participant group (Braun & Clarke, 2013). Having been a PE teacher and being involved in PE teacher education positioned me as an insider. Being accepted into schools by headteachers, heads of PE, and teachers involved in the study gave me a sense of being part of the team within the departments. Easterby-Smith and Malina (1999) assert that insiders' background and knowledge of a research context prepare them more effectively, enabling them to make sense of events observed in the research setting, unlike outsiders who may not have the same ability. This background offered me a distinct advantage in understanding the social context of a PE department/lesson.

However, some elements made me feel like an outsider. Having not taught in schools for ten years, I sometimes questioned whether I could still perform effectively. Additionally, I had openly critiqued traditional practices within PE as part of my early work for the study, which I shared with the schools. While I positioned myself as an expert, I was aware that from my position in academia, I could be perceived as out of touch with current practice.

The study's findings (see chapter eight) reflect on the nature of my role throughout the research process and offer insight into its benefits and challenges. By being aware of my position during the research, I aimed to position myself as a critically reflective researcher who was always aware of my influence within the research setting (Sullivan et al., 2016).

1.5 Chapter Summary

This research addresses critical challenges in PE, where current practices often fail to meet young people's physical, mental, and social needs. Despite a considerable body of research evidence and numerous policy changes, PE still needs to improve to meet the needs of all pupils, and this highlights the urgency of rethinking both what (content) and how (pedagogies) of PE. This study seeks to do just that, utilising an action research approach to assess the potential for LS within PE delivered through a complimentary pupil-centred approach – MPE.

Chapter Two - Literature Review

This chapter serves as a critical cornerstone within the framework of this thesis, aiming to fulfil several crucial objectives. It is both a journey through existing scholarship and a bridge that connects prior research to the present study. This chapter, informed by Leite et al.

(2019), aims to:

1. Establish the Theoretical Foundation: This chapter will elucidate the theoretical underpinnings and concepts that underlie the research problem. Analysing the existing body of knowledge will provide a solid grounding upon which the current study is built, demonstrating its alignment with established theories and frameworks.
2. Identify Research Gaps: A critical assessment of the literature will enable the identification of gaps, limitations, and unresolved questions in the field. These gaps will serve as a rationale for the current research, highlighting its significance in addressing these deficiencies.
3. Contextualise the Research: This chapter will provide context for the research problem through an extensive review of relevant literature. It will outline the historical development, key debates, and contemporary perspectives within the research domain, offering a comprehensive understanding of the subject matter.
4. Guide the Research Design: The synthesis of existing studies will inform the research design, methodology, and data analysis techniques employed in this study. It will help to shape research questions, hypotheses, and data collection strategies.
5. Contribute to Scholarly Discourse: This chapter seeks to contribute to the scholarly discourse in the field by critically evaluating and synthesising prior research. It aims to consolidate existing knowledge, propose novel insights, and offer a foundation for future research endeavours.

In essence, this chapter not only surveys the landscape of existing scholarship but also lays the groundwork for the empirical investigation that follows. It serves as a compass, guiding the reader (and researcher) through the research's theoretical and empirical terrain while highlighting its significance and potential contributions to the broader academic and physical education community.

2.1 Youth Physical Activity and Health

Participation in PA is widely recognised as a fundamental aspect of health and well-being on a global scale (World Health Organisation [WHO], 2020). In 2018, the WHO introduced the Global Action Plan on PA (GAPPA) 2018–2030, accompanied by a voluntary global target to reduce physical inactivity in adults and adolescents by 15% by 2030. An extensive review of the existing guidelines by Bull et al. (2020) underlines the significance of these new WHO guidelines, as they offer clear, evidence-based recommendations on the multiple health benefits of PA while also highlighting the potential risks associated with sedentary behaviours.

Physical inactivity stands as one of the primary contributors to global mortality, leading to an increased risk of a range of cardiovascular diseases and cancers (Arem et al., 2015; Ekelund et al., 2020). Physical inactivity was identified as a significant cause of premature death worldwide, with insufficient PA being the fourth leading risk factor for mortality (WHO, 2023). Recent research indicates that insufficient PA is responsible for up to 8% of non-communicable diseases and deaths worldwide (Katzmarzyk et al., 2021), with an estimated 5.3 million of the 57 million global deaths in 2008 linked to insufficient PA (Ozemek et al., 2019). The habit-forming process during youth has been recognised as a key predictor of adult PA (Biddle et al., 2015; Ekblom-Bak et al., 2019; Engström, 2012; Stratton & Watson, 2009). Therefore, it is imperative to provide positive experiences for young individuals to maximise the likelihood of their continued engagement in PA throughout adulthood.

In the United Kingdom (UK), concerns regarding the health of young people have been steadily mounting over the years. The most recent guidance from the Chief Medical Officers (CMO) in 2019 highlights numerous benefits associated with regular PA, including enhanced learning and academic performance, improved mental health, increased cardiovascular fitness, and contributions to maintaining a healthy weight status. Recent data from the Sport England Active Lives Children and Young People Survey (Sport England, 2024) reveal potentially worrisome trends, with less than half of all children meeting the recommended average of 60 minutes of PA per day and nearly one-third falling significantly short of this target. Furthermore, the data indicate that PA levels tend to decline with age, with a noticeable drop from key stage three (ages 11-14 years) to key stage four (ages 14-16 years). Additional recent data from the National Health Service (NHS, 2024) heightens concerns about children's health, revealing that 1 in 5 reception children (age 4-5 years) is categorised as overweight or obese, a figure that rises to 1 in 3 by the time they reach year 6 (age 10-11

years), with a worsening trend year by year, with clear links between a lack of PA and obesity prevalence (Carbone et al., 2019). The substantial sample sizes, robust methodologies, and multi-year data tracking in these reports inspire some confidence in the accuracy of the data, although noting the concerns over using BMI to gauge obesity (Adab et al., 2018), allowing for some tentative conclusions to be drawn from the figures. Despite some concerns about self-report measures of PA, it is more likely that participants would overestimate their PA levels than underestimate them (Mâsse & de Niet, 2012).

In response to the pressing need to enhance the population's PA levels, the Department for Culture, Media, and Sport (under the previous Conservative government, but yet to be updated by the new Labour government) released a new sports strategy in 2023 titled "Get Active: A Strategy for the Future of Sport and Physical Activity." This strategy is built on three core priorities:

- **Ambitious Action:** The strategy calls for unapologetic ambition in increasing PA across the nation, with a particular focus on reducing physical inactivity in children. The goal is to make visible progress by 2030, ensuring that all segments of the population are engaged.
- **Inclusivity:** Another key aspect of the strategy is to make sport and PA more inclusive and welcoming for everyone. It recognises the importance of creating an environment where everyone feels there is a place for them in sport and PA.
- **Sustainability:** The strategy also emphasises moving toward a more sustainable sector that is financially resilient and robust, acknowledging the long-term benefits of such an approach.

Embedded within the strategy is a strong emphasis on the importance of youth experiences as the foundation for a lifetime of PA. It states, "Central to this will be a focus on establishing a lifetime habit of being physically active amongst children and young people" (p. 3). While the strategy acknowledges the role of schools in promoting PA and sport, it occasionally conflates the terms "sport" and "physical activity," which can be misleading and exclusionary. It is essential to recognise that while sport is one avenue for PA, there are several other outlets for PA, such as active travel, active play, active work, and active recreation. With an even tighter focus on the role of schools in England, the Department for Education, working with the Department for Culture, Media and Sport and the Department for Health and Social Care (2023), recently released an update to the School Sport and

Activity Action Plan. Key elements of the update emphasised the need for high-quality PE in schools and a strong encouragement for all schools to provide 2 hours of PE per week. Alongside this, they provide guidance for improving the experiences of girls and those with special educational needs and disabilities, two key demographic groups who have typically experienced barriers to PE enjoyment and PA participation beyond school (Allen et al., 2022; Youth Sport Trust, 2023). There is, however, still a strong narrative linked to competitive sport within the plan, which has been identified as a barrier for many young people who dislike this form of PA (Aggerholm et al., 2018; Wintle, 2018).

Given the relatively low levels of PA and the increasing prevalence of sedentary behaviour (Sport England, 2024), it is logical to consider that children are also becoming physically weaker. This, in turn, negatively impacts their motor competence, limiting their engagement and enjoyment of PA. Sandercock and Cohen (2019) have tracked trends in muscular fitness among UK-based 10-year-olds from 1988 to 2014, and their results suggest declining levels of muscular fitness in both sexes, with a noticeable acceleration in the last decade.

Simultaneously, a decline in self-reported PA levels implies a connection between these trends and decreasing habitual PA among children, raising concerns about the long-term physical condition these young individuals may face as they mature.

In addition to the concerns surrounding physical health, recent years have seen an increased focus on the mental health of young people. Data indicates that the mental health of many young people is far from optimal. The Mental Health Foundation (2018) reported that 20% of individuals aged 16 years and older in the UK exhibited symptoms of poor mental health, including anxiety or depression, with this trend appearing to be on the rise (NHS, 2022); this can be evidenced in the recent updates from the Child and Adolescent Mental Health Service, who have record waiting lists for their services (Tidman, 2022) a problem that seems to have been exacerbated by the impact of the covid-19 pandemic (Knowles et al., 2022) and also increases with age, with girls impacted more significantly than boys (Yoon et al., 2023). Evidence from various sources underscores the positive impact of PA on mental health, including stress reduction, anxiety and depression alleviation, and improvements in self-esteem (Babic et al., 2014; Biddle et al., 2015; Biddle & Vergeer, 2020; Singh et al., 2022). This further underscores the importance of prioritising PA promotion among young people. However, a recent review article (Majeed, 2022) has emphasised some weaknesses in the evidence base surrounding PA and mental health, with critiques levelled at weak methodologies (e.g., no control groups, cross-sectional designs), small sample sizes, and the

use of self-report measures, which can lead to social desirability bias. We must, therefore, exercise caution when assuming that all PA positively influences mental health.

In response to these growing concerns, the UK's most recent Chief Medical Officers (2019) guidance for PA in youth populations emphasises the need for regular PA, particularly moderate to vigorous activities that leave individuals breathless. The guidance also stresses the importance of activities that promote muscular fitness and bone strength while reducing sedentary behaviour. It specifically highlights the role of PE in developing movement competence, supporting children's skill development, and instilling the confidence to engage in PA. In a similar vein, Sport England launched a new strategy titled "Uniting the Movement" (Sport England, 2021), which places a central focus on providing positive early experiences to build the foundations for an active life. The strategy recognises that if children and young people have experiences that are enjoyable and positive and boost their confidence, they are more likely to maintain an active lifestyle in the future. Educators working with young individuals should understand this perspective and maximise the opportunity to provide a solid foundation for a physically active life.

Taking a more positive perspective, the extensive benefits of PA have been a subject of interest for several decades. Seminal work by Bailey et al. (2013) highlights the far-reaching benefits of PA within the Human Capital Model. Based on a significant research evidence base (over 500 articles), this model suggests that, beyond the physical advantages, PA also yields emotional (psychological and mental health), individual life and interpersonal skills, social (extended social circles, development of social skills), intellectual (improved cognitive function and educational gains), and financial (earning power, productivity, reduced absenteeism) benefits. With such a wide array of benefits associated with PA, it becomes evident that embracing a physically active lifestyle can lead to numerous positive outcomes. However, the Human Capital Model work has been funded by sports manufacturer Nike, so it may be wise to question the narrative that PA is a panacea for all human development issues or at least be cautious about the claims. More directly related to PE, Bailey et al. (2009) reviewed the educational benefits claimed by PE and school sports; an array of physical, social, affective and cognitive benefits were highlighted in the review. However, the authors advised caution in claiming such a wide range of benefits – if PE were held accountable for all of these, it could be problematic. Other scholars such as Ennis (2006) and, more recently, Whitehead (2020) warn that the PE community must be careful in claims regarding the benefits and outcomes of the subject. And not to readily assume the position that PE “is

instrumental in learners attaining broader educational goals. Physical education on this justification becomes a means to other ends and not an end in itself.” (Whitehead, 2020, p.94). Perhaps the most explicit goal for PE is summarised in the work of Quennerstedt (2019, p.612) “The only real sustainable aim for physical education is more physical education.” Perhaps replacing the latter reference to PE with PA adds clarity – our teaching should inspire young people to continue valuing and finding joy in movement in their own time beyond the school gates and long into their adult lives.

Finding joy and meaning in movement, and more specifically in PE, has been the focus of recent work by O’Connor (2019), who identifies that a focus purely on health outcomes does not engage many young people. However, when we support students in understanding their personal experiences in movement as emotional, practical, aesthetic and imaginative (Brown & Payne, 2009; Stolz, 2015), they are more likely to find a stronger connection to movement as a way of promoting broader flourishing and finding joy in a life that is worth living (Durdin-Myers et al., 2018; Ronkainen & Nesti, 2019). These more meaningful experiences can then potentially support young people in deriving a greater understanding of their moving selves (Stolz, 2015). Kretchmar (2000, p.19) suggests “that individuals who find meaning in physical activity and other healthful actions are far more likely to develop and maintain active lifestyles”. When (young) people find meaning and joy in PA, they are much more likely to organise their lives in a way that values opportunities to be active and ensures that they regularly use those opportunities to engage in PA, often for fun and enjoyment, with the subsequent health aspects becoming a secondary benefit rather than a primary motivator. It is, therefore, imperative that, as educators, we seek to help young people find joy and meaning in their PA experiences (particularly in PE) so they can see that movement has the potential to enrich their lives with much more than good health.

2.2 The Effectiveness of Current Practice in Physical Education

The purpose of PE has long been a subject of debate among practitioners, students, policymakers, and academics alike (Kirk, 2012; Lyngstad et al., 2020; McEvoy et al., 2015). Various themes have emerged from the literature, shedding light on the multifaceted and often conflicting nature of PE's objectives. These themes encompass PE's role in developing sports techniques and performance, its contribution to meeting national PA guidelines, its potential as a platform for the development of broader life skills, and its consistent

association with the promotion of physically active lifestyles (Gray et al., 2023; Kirk, 2018; Quennerstedt, 2019).

Schools, and PE in particular, have often been identified as pivotal settings for students to cultivate a positive relationship with PA (Cale, 2023; Green, 2014; Hills et al., 2015; Kilgour et al., 2015; Laakso et al., 2008). Cale (2023, p. 2) states

“It is within and through PE where explicit learning experiences need to be planned for young people to equip them with the health-related knowledge, understanding, skills, and attributes required to be physically active for life and to make critically informed decisions concerning their lifestyles and behaviours.”

The intention is that habit formation during youth will lead to the adoption of more physically active lifestyles in adulthood (Daly-Smith et al., 2020; Hills et al., 2015), a point highlighted in the recent Ofsted research review where the concept of “healthy participation” is seen as one of three vital subject pillars (Ofsted, 2022). Nevertheless, current practices in PE have often been criticised for their ineffectiveness in achieving this objective, which is also one of the four key aims of the English national curriculum for students to “lead healthy, active lives” (Department for Education, 2013, p1).

Green (2014) emphasises the widely held belief that PE “is or, at the very least, can be a crucial vehicle for enhancing young people’s engagement with physically active recreation in their leisure and, in the longer run, over the life-course” (p. 357). However, he also acknowledges that the current research on this topic is inconclusive, suggesting that the relationship is not purely causal, with many factors influencing PA participation beyond just PE experiences. Green (2014) asserts that to maximise the potential of PE to influence future PA habits, there needs to be a better alignment of curricula with the evolving interests of young people. He notes the significant growth of lifestyle and informal sports, such as cycling, swimming, and health-related exercise, which have witnessed substantial increases in participation among young people and remain the most consistently practised types of activities beyond the school gates (Gilchrist & Wheaton, 2017). This underscores the importance of considering these activities in the design of PE programs, which traditionally have not embraced them.

These themes and concerns are echoed by scholars worldwide. Tinning and Fitzclarence (1992/2012) describe PE as a subject in ‘crisis,’ asserting that children often find PE lessons dull and uninspiring. Petrie (2016) also contends that historically, PE has often been

presented in very traditional ways, points echoed more recently by Stidder (2023) with an increasing focus on conventional (usually competitive) sports with little pupil input in curriculum design. The slow pace of change in PE has been attributed to various factors, including policy (Herold, 2020) and teacher workload (Paniagua & Sánchez-Martí, 2018). However, one of the most significant factors is the socialisation of PE teachers (Lawson, 1983). The recruitment and early professional development of teachers are heavily influenced by their own educational experiences and the practices of experienced colleagues, often resulting in the perpetuation of traditional teaching methods and curricula and a subsequent lack of innovation/change. Table 2.1 summarises the key phases of occupational socialisation (Lawson, 1983).

Table 2.1 – Phases of Occupational Socialisation (Lawson, 1983)

Phase	Description
Acculturation	Alluding to childhood memories and encounters with PE and sports, this period of 'observed apprenticeship' (Lortie, 1975) seems to be the most influential phase of socialisation. During this phase, PE teachers shape their perspectives on what constitutes effective teaching.
Professional socialisation	Refers to the phase of training in higher education where trainee teachers are typically exposed to new ideas/methods. Often to dispel some of the less effective practices they may have witnessed/experienced in the acculturation phase.
Occupational socialisation	This is the influence of the school, department and other teachers. It involves the acquisition of knowledge, values, and behaviours that are characteristic of experienced colleagues. There is often a wash-out effect of some of the learning from the professional socialisation phase.

The strong influence of the acculturation and occupational socialisation phases has often been highlighted as perpetuating traditional practices in PE (Curtner-Smith et al., 2008; Everly & Flemons, 2020; Jess et al., 2020; O’Leary, 2012). Further research has highlighted the wash-out effect often experienced during PE teachers' early career, where new ideas gained during professional socialisation are diluted and eventually lost (Richards, 2015). Implementing change in PE is discussed in greater depth in subsequent sections.

Understanding the relationship between school-based PE and lifelong PA (or the intention for lifelong PA) warrants further exploration. Engström (2008) conducted a study to investigate whether differences in sports experiences during childhood and adolescence are reflected in exercise habits in middle age. Initial data were collected from Swedish school children (n=1971) in 1968, followed by six subsequent contacts, with the primary data source being a questionnaire in 2007 (which achieved a 77% response rate). The results indicated that sports habits, as reflected in school PE grades and attitudes toward physical exertion and PE, were significantly associated with later exercise habits. Although there may have been shifts in society and education during this long period, the idea that childhood experiences can significantly influence future PA habits across decades is noteworthy.

In more recent research, Ladwig et al. (2018) analysed the PE experiences of over 1000 adults through an online survey, comparing these experiences with their current PA habits. The results suggested that PE memories from childhood and adolescence had a small-to-moderate association with attitudes, intentions, increased sedentary behaviour and decreased PA in adulthood. Notably, negative experiences in PE, such as embarrassment, lack of enjoyment, and anxiety, were often more powerful and influential than positive experiences (negative bias). Conversely, enjoyment and feelings of competence in PE were associated with more positive memories and a greater likelihood of engaging in PA as adults. While the sample size was relatively small compared to the US population, it was considered representative; the study was limited by its retrospective nature, its cross-sectional and correlational design, and the use of self-reporting to measure PA. However, the findings suggest there is a clear relationship between PE experiences in youth and PA habits in adulthood. These findings weave together some of the key concepts and theories discussed later in this chapter: Physical Literacy (PL), Self-Determination Theory (SDT), and meaningful experiences, which collectively shape future PA habits.

Very recent work based in England has explored students' experiences of secondary school PE using qualitative methods with 16 pupils from 8 schools (Hemingway et al., 2023). They suggest that there is a clear decline in pupils' engagement and enjoyment in PE as they progress into and through secondary school and wanted to explore this trend further to identify potential causes. Their data, collected through semi-structured interviews, identified three key themes that contributed to pupils' experiences: structure, stress, and social support. Pupils noted the highly structured way they were taught, particularly in key stage 3 (age 11-14 years); the more structured PE lessons were seen as less enjoyable due to a lack of choice

and autonomy. They were viewed as more ‘traditional’ and delivered in a teacher-led manner. This was a source of frustration for students who wanted to be left to ‘play’ and have fun without teachers overly restricting their actions. They also noted that the highly competitive nature of some lessons was perceived negatively by many. In relation to the second theme of stress, pupils identified some of their PE experiences as being embarrassing and feelings of being under pressure to perform. They also noted that teachers shouting at them and the pressure of competition elevated their stress levels to a point where PE was not enjoyable. The final theme (social support) caused pupils to have negative feelings towards PE primarily because of social comparison (often derived from elements like fitness testing and competition).

“Feelings of self-consciousness may be heightened due to the age of students or the controlling teaching approach, which could also be responsible for increased levels of social comparison in KS3 PE” (Hemingway et al., 2023, p.8)

In comparison to the above, pupils in the study highlighted a slight shift in experience at key stage 4 (15-16 years old). The lessons were described as more relaxed, with a shift towards well-being and enjoyment. Pupils described these lessons as more fun, with more choice and a more relaxed teaching style that contributed to greater enjoyment and more closely mimicked how they might engage in PA outside of school. Whilst the study is relatively small scale, based in just one county, and findings taken from only pupil perceptions (no observational data), the messaging is perhaps worthy of reflection. Could there be potential for the key stage 3 lessons to be delivered in a similar way to key stage 4 to increase their appeal and effectiveness? This is particularly noteworthy for this study as the research is located in the same country (under the same curriculum guidance), with two of the groups used taken from key stage 3 (see more details in the methodology chapter).

Reviewing the recent state of PE practices, Kirk (2010 & 2012) offers a critical assessment, asserting that PE, particularly the traditional approach focused on sports techniques, has not evolved to be relevant in the 21st century. Kirk presents three potential futures for PE: maintaining the status quo, radical reform, or extinction. While maintaining the current approach may seem like the path of least resistance, the evidence thus far suggests that PE, in its current form, is not effectively promoting PA in young people's lives beyond school. If PE were to continue on this trajectory, it could face the third future of extinction as a subject, or indeed, a strong case for it could be made. In more current work, Sullivan (2021) demonstrates the slow pace of change in PE with his book “Is PE in Crisis?” he echoes many

of the claims made by Kirk (2010 & 2012), stating that many children “were doing PE because they had to, not because it was providing the positive experiences that would unlock a lifetime of happiness through sport” (p. 10). Whilst I would question the use of the word “sport” in this quote (I would prefer PA or movement), the sentiment remains the same as Kirk’s work – PE was considered not fit for purpose in its current form.

For many young people, PE is not a positive experience, and this can have lasting consequences for their relationship with PA and movement. Spencer-Cavaliere and Rintoul (2012) explore this issue, focusing on the concept of alienation in PE. They define alienation as "the persistent negative feelings some students associate with actively aversive or insufficiently meaningful situations (which students often label with the all-purpose adjective boring) in the gymnasium setting" (Carlson, 1995, p. 467). In their research, three key factors contributing to alienation in PE were identified:

1. **Degree of Control:** The extent to which students have control over their skill level and the activities they engage in during PE. When control was heavily vested in teachers, leading to traditional practices like running laps, students were less engaged and more likely to have negative experiences.
2. **Sense of Meaning:** The meaning attributed to PE experiences. Many students found PE meaningless, citing boredom and a lack of relevance. Lessons were often perceived as repetitive, and activities were seen as uninteresting or unrelated to their lives.
3. **Social Factors:** Peer-related issues, including social rejection and bullying, particularly related to skill level and athletic performance, contributed to feelings of alienation.

Although Spencer-Cavaliere and Rintoul's (2012) study was conducted in the USA, similar findings have been reported in European studies (e.g. Beltrán-Carrillo et al., 2012; García-González, et al., 2019) that have concluded the negative experiences in PE have led to young people removing themselves from all contexts of organised PA, underscoring the powerful nature of PE experiences.

Currently, there appears to be a disconnect between PE and the role of PA in young people's lives beyond school. To address this, it may be necessary to reconsider the nature of school PE and explore the potential for a postmodern curriculum in PE, as suggested by Tinning and

Fitzclarence (2012) and, more recently, Sullivan (2021) and Banville et al. (2021). Such a curriculum could integrate concepts like Physical Literacy (PL), Self-Determination Theory (SDT), and meaningful experiences (ME) into its design and delivery, fostering a more positive and relevant experience for students. These approaches will be explored further in later sections.

2.3 Implementing Change in Physical Education

A crucial factor influencing how PE is delivered lies in the teacher's individual and diverse experiences in PE and sports, as well as their attitudes towards PA (Durdin-Myers & Keegan, 2019). Numerous studies have probed teachers' perceptions and attitudes toward PE, often examining the impact of professional development programs on these perspectives (Buczynski & Hansen, 2010; Heidorn, 2015). Many of these investigations emphasise the intricate and complex nature of pedagogical change (as mentioned in earlier sections), where achieving sustained pedagogical transformation becomes challenging (Durdin-Myers, 2020). Consequently, reshaping and adapting practices in PE is a complex endeavour (Armour & Yelling, 2004). The concept of occupational socialisation presents distinct challenges to the development of the teaching profession, particularly for aspiring teachers aiming to align with the profession's norms and attitudes within their specific school context (Gökçe, 2020).

As discussed in earlier sections, occupational socialisation, a term commonly associated with professions like nursing and education, refers to the process by which an individual becomes a recognised member of a professional community (Shahr et al., 2016). Gaining a strong sense of teacher identity is vital in this process; teacher identity can be defined as the values, emotions, ethical commitments, future aspirations, professional knowledge and competencies of teachers that influence decision-making in all aspects of their role (Virta et al., 2019). Once teachers have firmly established their professional identity, they can develop a sense of commitment to their role within the school environment and also establish more significant levels of power to influence decision-making (O'Connor & MacDonald, 2010). Only then can they actively contribute to reshaping established norms.

Recent work from Herold (2020) highlighted the difficulties of implementing change in PE, even when prompted to do so by new policies (such as national curricula). He interviewed 43 PE teachers from English secondary state schools, exploring their approach to teaching the new NCPE. He highlighted how the creation and implementation of the new national

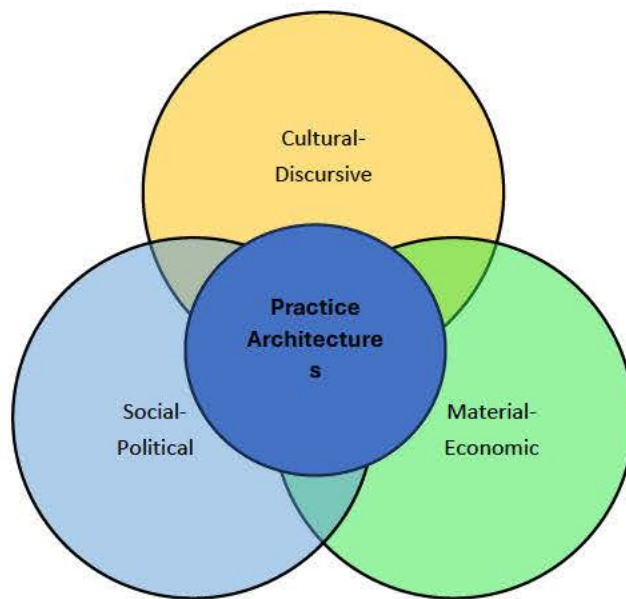
curriculum in England had minimal impact on both what and how teachers taught PE in schools. Several key themes supported the lack of change, such as the choice not to change (due to the freedom afforded by a minimalist national curriculum and the low accountability for core PE (the subject is not formally examined/assessed in England)). Whilst there was a shift in focus to more competitive sports, this served as more of an intriguing aspect of the new curriculum rather than a catalyst for substantial change. The majority of instructors involved in this research believed that they had already incorporated competition into their instructional methods, most likely due to the inherently competitive nature of many of the activities on the curriculum. Consequently, they generally perceived no pressing need to modify their teaching approach in response to the competitive undertones present in the new curriculum. In similar work related to change in practice, Goodyear and Casey (2013) noted the strong resistance to change within the subject. They suggest that PE has been caught in a time of ‘innovation without change’. Moreover, despite a plethora of pedagogical developments and new policies which promote a reconsideration of traditional approaches/pedagogies, teachers have rarely moved beyond the honeymoon period of implementation of new ideas (i.e. they may try new ideas but mostly revert to old traditions). Whilst it is worth highlighting that this work was only set in one school with six teachers, what they were able to show was that by using the first author as a “boundary spanner” (someone from a different professional organisation [a university in this case] who brought in new information and supported teacher inquiry) that change became more sustainable. In their findings, they acknowledge the difficulty in eliciting long-term change and that without the boundary spanner in place, alongside creating a community of practice who had a shared desire to try something new, this may not have been sustained. This is important work considering the present study, as it demonstrates how moving between the university setting and becoming closer to the ‘coal face’, researchers can have a more significant influence, albeit a labour-intensive influence, to change practice in one setting.

In more recent work, Casey (2020) discussed what conditions need to be in place for change to become a reality in PE, highlighting that a growing literature base may provide a rationale for change but often neglects the realities of implementing that change in real-world settings. Whilst he addresses some of the more practical areas (such as timetable and facilities), perhaps the most pressing were two key areas. Firstly, he argues that we need a new identity for the subject and that a consensus is required on the overarching aims and purposes of PE, suggesting that it is “physical education-as-health promotion” (p. 119) – where the purpose of

PE is aligned with wellbeing and health promotion rather than sports techniques. To bring this to life, a further important driver of change is in teacher professional learning. Whilst acknowledging the importance of initial teacher education in introducing new approaches (alongside in-service professional development for established teachers), Casey encourages greater use of school-based professional learning that is in context and personalised to the teachers involved and once again encourages collaboration between researchers and teachers. This approach fits with the action research methods used in this study (see methods chapter), which have been influenced by some of the recent work on implementing change in PE. As discussed in earlier sections, professional socialisation, a term commonly associated with professions like nursing and education, refers to the process by which an individual becomes a recognised member of a professional community (Shahr et al., 2016). Once teachers have firmly established their professional identity, they can develop a sense of commitment to their role within the school environment and establish greater levels of power. Only then can they actively contribute to reshaping established norms. Within the present study, I very much see myself in the occupational phase, looking to extend and enhance my practice whilst also trying to model what this could look like for others in the future.

Understanding and potentially altering these established norms can be approached through the lens of practice architectures (Kemmis, 2012). By comprehending the concept of practice architectures and their influence on both existing and new practices, one can gain insights into how practices are structured and how to drive change effectively. This framework aids in understanding the reasons behind current practices, offering a structured approach to dissecting and reconstructing them. The term practice architectures refers to how practices are shaped by various situated and contextual factors (Kemmis, 2012). It bears similarities to other perspectives on educational and curriculum reforms, acknowledging that the shortcomings in curriculum change cannot solely be attributed to teachers' misinterpretations of innovations or policies (Coburn, 2005; Cohen et al., 2007; Fullan, 2007). The theory posits that each practice enacted in classrooms results from a practice architecture comprising semantic (cultural-discursive), social (social-political), and physical (material-economic) elements (Kemmis, 2012). These elements collectively establish the working conditions or environment that either enables or constrains specific practices.

Figure 2.1. Interdependent Arrangements of Practice Architectures



The three Interdependent Arrangements of Practice Architectures are:

Cultural-Discursive: This refers to the language and culture within an organisation, often called the "semantic space." It shapes the words and specialised language considered appropriate for explaining, describing, or justifying a specific practice (Kemmis et al., 2014). For example, a teacher might defend their use of a teacher-led approach by saying it allows for "tighter control," makes the class feel "safer," is "well-managed," or ensures "students remain on task" (Goodyear et al., 2017).

Social-Political: This aspect relates to social interactions, power dynamics, and shared beliefs among those involved in a practice. It appears in an organisation's rules, roles, and the agreements among practitioners about what actions to take in particular situations (Kemmis et al., 2014). For example, teachers in the same school might share the belief that teacher-led methods are the best way to help students understand content. These beliefs can be reinforced by national or school policies and curriculum guidelines that prioritise observable outcomes and teacher-controlled environments as effective approaches (Goodyear et al., 2017).

Material-Economic: This focuses on the physical world, including actions, resources, and the practical conditions needed to make a practice possible. It influences what can be done within the physical setup of spaces in schools (Kemmis et al., 2014). For instance, a classroom with rows of desks and a front-facing whiteboard supports a teacher-led approach by encouraging one-way communication, limiting student discussion, and promoting a

structured, controlled environment. This setup aligns with the cultural-discursive and social-political factors that favour specific kinds of knowledge and discipline (Goodyear et al., 2017).

To understand and change practices, all three factors must be considered because challenges or support might come from any one or a combination of these areas. Changes to teaching methods or curricula are not just theoretical; they are shaped by the social and political realities of teaching, including teachers' professional identities, the structures supporting their practices, and how they are socialised into the profession. This may help explain why change in education, including PE, is often slow or even absent.

The process for change is also critical if we are to see long-term shifts in how physical education is presented. Whilst there is a considerable volume of research highlighting the need for change (e.g. Kirk, 2012; Hemmingway et al., 2023; Stidder, 2022; Sullivan, 2021; Tinning & Fitzclarence, 1992), there is much less clarity from the field on how to manage the often-complex process. Sullivan (2021) highlights Kotter's model of change (Kotter, 1996) as a potential framework to help leaders and teachers in physical education to initiate, implement and sustain change for the development of the subject and, notably, the benefit of young people. Kotter's model, grounded initially in the business world, provides a logical staged process to initiate, implement and sustain change. Aktar and Kotter (2019) also highlight the applicability of the model within educational settings, including schools. To demonstrate the applicability of the model within educational settings, table 2.2 summarises each step and highlights fitting links to the education sector.

Table 2.2 – Kotter’s 8-Step Model of Change

Step	Description	Application to Education
1. Establish a Sense of Urgency	Create awareness about the need for change, highlighting the challenges or missed opportunities if a change is not implemented.	Emphasise the need for educational reforms to improve student outcomes, adapt to new curricula, or respond to declining student engagement. Communicate the consequences of inaction.
2. Form a Powerful Guiding Coalition	Assemble a group of influential educators, administrators, and other stakeholders to champion the change effort.	Build a team of passionate teachers, school leaders, and possibly students to support and lead the change initiative. Gain buy-in from key influencers in the school community.
3. Create a Vision for Change	Develop a clear and compelling vision for the change that aligns with the institution’s goals and values.	Craft a vision for how the change will benefit the school, students, and educators, such as enhancing learning experiences or improving school culture. Articulate this vision clearly.
4. Communicate the Vision	Ensure the vision is communicated frequently and effectively to all stakeholders, using various channels to build understanding and commitment.	Share the vision with teachers, students, parents, and other stakeholders through meetings, newsletters, and classroom discussions to ensure consistent understanding and enthusiasm.
5. Empower Action	Remove obstacles to change, provide necessary resources, and encourage people to take initiative in implementing the change.	Identify and address barriers such as limited resources or resistant staff. Offer professional development opportunities and give teachers the autonomy to implement new strategies.

6. Create Short-term Wins	Generate and celebrate visible, short-term achievements that can build momentum and prove the benefits of change.	Set measurable milestones, such as improved test scores or increased student engagement in the first semester. Celebrate these successes to build confidence in the change effort.
7. Consolidate Gains and Build on Change	Use early wins as a foundation for more significant, sustained changes. Continuously monitor progress and refine strategies.	Use the momentum from early successes to drive more extensive reforms, such as curriculum changes or pedagogical shifts. Continue to refine and expand changes to institutionalise them.
8. Anchor the Changes in the Culture	Ensure that the new practices become part of the school's culture and daily operations. Reinforce the connections between change and improved outcomes.	Embed the new methods or policies into school culture by making them part of teacher training, annual reviews, and student assessments. Ensure long-term adoption through cultural shifts.

According to Swaithes (2021), Kotter's 8-step change model provides a structured framework that is particularly well-suited for embedding change in education (and PE specifically) due to its focus on gradual, inclusive, and sustainable change. In educational environments, resistance to change can be high, especially when it comes to altering long-established teaching practices and curricula. The model helps mitigate this by creating a sense of urgency, building a coalition of stakeholders, and ensuring that changes are deeply embedded in the institution's culture. However, it is worth noting that the limited work referring to the use of Kotter's model within PE, or education more broadly, is not peer-reviewed (with some exceptions, see e.g. Kang et al., 2022) and thus its credibility may be questionable. This, however, provides an opportunity for this piece of work to contribute to the rigour of applying this model in educational settings.

While highlighting the need for change and a process to support this is key, identifying the goal of change is critical to ensuring that change has a clear sense of direction. In the

subsequent sections, physical literacy (PL), self-determination theory (SDT), and MPE are considered possible concepts/frameworks that could offer PE this clarity.

2.4 Physical Literacy: A Guiding Concept?

PL, as conceptualised by Whitehead (2001), has emerged as a pivotal concept for promoting the development of physically active lifestyles. Over the last decade, it has gained significant recognition for its role in enabling individuals to access the wide-ranging benefits of increased PA (Cairney et al., 2019; Giblin et al., 2014; Keegan et al., 2013). PL is defined as "the motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for engagement in physical activities for life" (Whitehead, 2010, p. 11).

While PL was not initially introduced solely to promote PA, many scholars have acknowledged its potential as an antecedent to PA (Edwards et al., 2017; Gately, 2010; Giblin et al., 2014; Whitehead, 2010). It is important to note that PL goes beyond mere physical health improvement; it emphasises the potential for individuals to derive meaningful, fulfilling experiences that contribute to overall well-being and flourishing (Bailey et al., 2013; Shearer et al., 2018).

Debate surrounds the definition, interpretation, and application of PL (Bailey, 2020; Duncan et al., 2024; Edwards et al., 2017; Keegan et al., 2019). Edwards et al. (2017) conducted research analysing the various definitions and interpretations of PL worldwide and identified 22 core themes that underpin its interpretation and implementation. This highlights how the concept has sometimes been misinterpreted or diluted from its original conceptualisation in specific contexts. Two predominant approaches have emerged: the 'Whiteheadian' approach and the 'Long-Term Athlete Development (LTAD)' approach. The latter tends to focus more on developing PL through sports participation. For this review and subsequent research, the 'Whiteheadian' view will be adopted. This decision is based on the understanding that PA encompasses much more than just sports and that the LTAD view can fit within the 'Whiteheadian' definition but not vice versa.

Recent efforts by Sport England (2023) have aimed to provide greater clarity to the PL definition debate through a consensus statement. The statement defines PL as "Physical

literacy is our relationship with movement and physical activity throughout life" (Sport England, 2023, p.1), emphasising that it is a dynamic, ever-changing relationship influenced by factors like thoughts, feelings, engagement, and experiences. Notably, the statement acknowledges that the quality of an individual's relationship with PA profoundly influences their choice to be active. Establishing a positive and meaningful relationship with movement and PA in youth is crucial, given that these attitudes and relationships tend to persist into adulthood.

Several prominent scholars in this field have agreed that understanding the philosophical underpinnings of the PL concept is crucial (Dudley et al., 2017; Keegan et al., 2017; Whitehead et al., 2018). PL is grounded in three key areas of philosophy (Pot et al., 2018).

- **Monism:** PL adopts a monist view of the individual, perceiving the mind and body as inseparable. What individuals do with their bodies has a profound impact on their psychological well-being. For instance, a student experiencing low success in a particular physical task may see a negative impact on their motivation and confidence to engage in similar activities in the future.
- **Existentialism:** This philosophical perspective asserts that individuals have no pre-defined essence and possess the freedom to create and recreate themselves through interactions with the world. It acknowledges that learning is an interaction with situations, surroundings, and other people.
- **Phenomenology:** Phenomenology, closely linked to existentialism, posits that each individual experiences the world from a unique perspective due to their distinct life experiences. Therefore, interpretations of PE experiences can vary significantly from person to person. Physical educators must cultivate the ability to understand these unique perspectives to provide inclusive and practical instruction.

Understanding and aligning with these philosophical underpinnings are essential for PE teachers. In her recent work, Whitehead (2021) outlines three key principles that underpin a PL-informed approach to teaching PE, aligning with these philosophical foundations:

1. **Respect for the Holistic Individual:** Teachers must respect each student's holistic nature, recognising that physical and psychological aspects are interconnected. This

involves looking beyond a child's purely physical elements and displaying empathy, humility, encouragement, and praise for effort, in addition to outcomes.

2. **Importance of Varied Movement Experiences:** PE should offer students experiences across a range of movement forms, including adventure, aesthetic, competitive, fitness/health, and relational activities (table 2.3 presents an overview of these). This aligns with existentialism and phenomenology, emphasising the importance of broadening young people's movement experiences to lay the foundations for lifelong participation. It acknowledges that PE's narrow focus on competitive sports may not cater to all students and suggests that curricula should allow students to explore various forms of movement. This issue is further discussed in section 2.8, specifically in relation to lifestyle sports (interactive/relational activities).
3. **Engagement with Each and Every Child:** This principle emphasises the need to engage with each student, aligning with inclusive practices and the phenomenological aspect of PL. It involves understanding each student's unique experiences and interactions, rewarding effort, and differentiating lessons to provide an appropriate level of challenge.

These principles underscore the importance of embracing the philosophical foundations of PL in PE instruction. This will ensure that students not only develop physical competence but also cultivate a positive and meaningful relationship with movement and PA throughout their lives.

Table 2.3 – Physical Literacy Movement Forms

Movement form	Explanation and examples
Adventure	Focus on meeting risk and managing challenges in natural and often unpredictable environments, such as navigation, climbing, and bushcraft.
Aesthetic and expressive	Activities where the embodied dimension is being used as an expressive instrument within a creative, aesthetic, or artistic context, e.g., gymnastics, dance, and trampolining.
Athletic	Challenges are placed on the embodied dimension to reach personal maximum power, distance, speed, and accuracy, often within the context of competition in a controlled environment, such as athletics, cross country, and cycling.
Competitive	Characterised by the outwitting of opponents both singularly and in teams, managing a variety of implements and objects, and coping with changing and challenging conditions and terrain to achieve predetermined goals, e.g. football, netball, tennis, cricket, and golf.
Fitness and health	Activities where the goal is to increase movement ability through repetition, focus on the ‘body’ function and involve gradual quantity change and gradual quality change, such as circuit training, gym-based training, and yoga.
Interactive or relational	Activities where recognition that taking part in PA can be a social experience, founded on the empathy between people as they move together, e.g. parkour, skate sports, surfing, and any synchronised activities (swimming, diving, trampolining).

Adapted from Durden-Myers et al. (2018)

The potential utility of PL as a foundational concept for PE has been widely acknowledged by researchers, with the argument that adopting a PL-informed approach in PE could better prepare young individuals for a lifetime of PA (Durden-Myers, 2018; Lundvall, 2015; Whitehead, 2010). However, this integration did not happen without confusion regarding the relationship between PL and PE. PL should not be perceived as an alternative to PE, nor should it be seen as competing with PE. Instead, PE should be viewed as a subject within the broader school curriculum, while PL can be considered a potential goal of PE. However, there is an ongoing debate about whether achieving PL is a destination or an ongoing journey.

Despite being promoted as a fundamental concept for fostering physically active lifestyles and as a potential foundation for PE, PL has not been without critique. Quennerstedt et al. (2020) cautioned against viewing PL as a panacea for all issues related to PA engagement. He suggested that presenting PL as a "fix-all" concept could be seen as ideological seduction, with claims about its effects possibly being overly optimistic. Factors such as environmental conditions, family influence, peer interactions, and work or educational commitments also play crucial roles in shaping PA behaviours. In a similar vein, Casey (2021) echoed these sentiments, emphasising the need for caution and realism when evaluating the current state of young people's health and the claims made regarding PL's potential to enhance health and overall well-being. While PL has gained considerable attention and traction in recent times, it is essential to recognise that it may not be a universal solution to all challenges related to PA and PE. However, this does not diminish the value of exploring the concept further in the hope of improving both PA and PE experiences. It underscores the importance of considering a holistic approach that integrates PL with other factors influencing PA engagement.

While PL offers a compelling framework for understanding individual engagement with PA, it could be argued that its largely individualistic focus may inadvertently obscure the broader sociocultural, structural, and systemic factors that shape PA behaviours and PE experiences (Lynch & Walton-Fisette, 2022). PL's grounding in monism, existentialism, and phenomenology privileges personal experience and internal motivation, yet may underemphasise how social class, gender norms, ethnicity, disability, access to resources, and community infrastructures influence opportunities and motivations to be physically active (see e.g. Lee et al., 2021; Obi et al., 2023). For example, young people growing up in areas with limited green space, inadequate school PE provision, or fewer community sport programmes may face structural barriers that cannot be overcome simply through increased confidence or motivation. In this sense, a sole focus on the development of PL risks positioning responsibility for PA engagement on the individual, while neglecting the ways in which societal inequalities and cultural norms constrain or enable that engagement. As Kirk (2020) argues, PL must be understood not only as a personal journey but also as one that is deeply shaped by the social, political, and economic contexts in which people live. Therefore, while PL remains a useful and valuable lens through which to view PA engagement, it must be integrated with a broader sociocultural understanding to fully address the complexities of lifelong PA.

Motivation, a critical aspect of PL, has gained significant interest in recent discussions about lifelong PA (Chen, 2015; Roetert et al., 2018). Chen (2015) proposed a theoretical framework for understanding the motivation of young people to engage in PA. According to Chen (2015), three key areas contribute to motivation:

- **Competence:** This aspect relates to an individual's perception of their ability in a particular domain. Students who perceive themselves as competent are more likely to engage in physical activities. Notably, there can be discrepancies between perceived and actual competence, highlighting the need for teachers to pitch tasks at an appropriate level within the student's zone of proximal development. Differentiation is key to ensuring that PL is achievable by all students, recognising the importance of self-progress rather than social comparison (Whitehead, 2010).
- **Interest:** Situational interest arises from characteristics in a learning episode that appeal to students. It occurs when a task provides novelty and challenge, demands attention, and generates enjoyment. Situational interest can be highly individual, with what arouses interest for one student potentially failing to stimulate another. To sustain interest over time, experiences should be designed around learners' longer-term preferences, which may involve innovative curriculum design or incorporating student input into curriculum planning.
- **Self-Regulation:** This aspect reflects intrinsic motivation for the enjoyment or perceived benefits of PA or PE rather than for external rewards or recognition. This concept closely aligns with SDT (Deci & Ryan, 1985; Ryan & Deci, 2000), discussed in the following section.

SDT has close ties with all aspects identified by Chen (2015) and is a prominent theory in many aspects of motivation, not just in PE and PA. The subsequent section explores this theoretical framework in more depth, considering its impact in PE and PA settings before moving on to look at a specific method to operationalise SDT in PE through the MPE approach (see section 2.6).

2.5 Self-Determination Theory

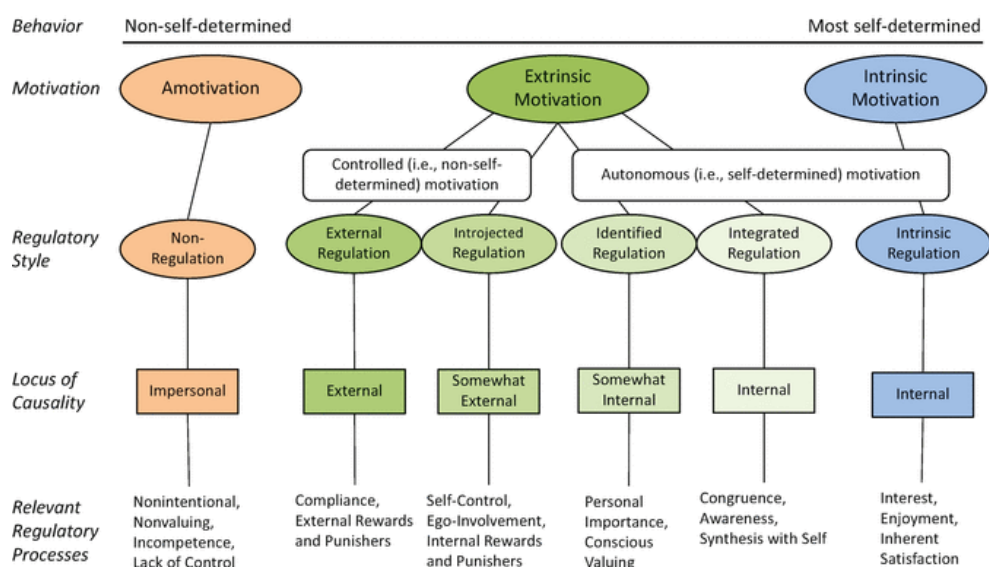
Roetert et al. (2018) aptly emphasised the need to expand the scope of PL beyond its purely physical elements, advocating for a shift towards instilling not only physical capabilities but also the confidence and motivation to apply these capacities in real-world settings beyond the

school environment. To delve into this broader context, it is essential to explore, in greater depth, the concept of motivation, which plays a pivotal role in shaping individuals' behaviours (Teixeira et al., 2012).

Motivation is the driving force behind an individual's initiation and sustained engagement in a particular behaviour (Chandler et al., 2007). Understanding how motivation develops and influences human behaviour is a key facet of Self-Determination Theory (SDT) (Deci & Ryan, 1985; Ryan & Deci, 2000). SDT provides a comprehensive framework for understanding the intricacies of motivation and its impact on various domains, including PA and PE. This theoretical framework has been identified as a valuable tool for understanding student experiences in PA and PE settings and for devising interventions to enhance student learning and motivation towards PA (Babic et al., 2014; Parker et al., 2020).

SDT classifies motivation along a continuum, encompassing intrinsic and several types of extrinsic motivations, each exerting a distinct influence on situational responses (see Figure 2.2 for an overview of this motivation continuum). In the context of promoting PA among young individuals, the ultimate objective is to foster intrinsic motivation situated at one end of the spectrum. Intrinsic motivation implies that individuals engage in PA driven by their genuine interest and enjoyment rather than feeling compelled to do so or being motivated by external rewards.

Figure 2.2 - The Self-Determination Continuum (Howard et al., 2017)



Numerous research studies underscore the significance of intrinsic motivation for sustaining long-term participation in an activity (Chandler et al., 2007; Deci & Ryan, 1985; Ryan & Deci, 2000). When individuals are intrinsically motivated, their engagement in physical

activities is driven by the inherent pleasure and interest derived from these activities (Eynon et al., 2019; Shin & Kim, 2021), which serves as a powerful catalyst for maintaining ongoing participation, contributing to the sustainability of PA behaviours over time.

Roetert et al.'s (2018) call to draw attention to the development of confidence and motivation to apply physical capacities in real-world contexts aligns with the crucial role that motivation, particularly intrinsic motivation, plays in fostering sustained engagement in PA. By understanding the principles of motivation within the framework of SDT, educators and practitioners can design interventions and educational experiences that promote intrinsic motivation, thereby enhancing the likelihood of long-term participation in PA among young individuals. To foster the initiation and long-term sustenance of PA behaviours, SDT emphasises the need to fulfil three fundamental psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 1985; Ryan & Deci, 2000).

Autonomy entails the individual's desire to be the origin or source of their behaviour. In the context of PA and PE, autonomy translates to having control or choice over various aspects of participation. This might encompass selecting the type of activity, choosing partners, determining the level of competitiveness, or even deciding what to wear. Research conducted by Mitchell et al. (2015) underscored the importance of autonomy-supportive environments. Disengaged girls in a Scottish secondary school who were given choices in their PE activities and partners reported increased enjoyment and reduced dread of PE. We can have confidence in the findings due to the in-depth nature of this case study using longitudinal interviews (3 with each participant) over an 18-month period. However, we should be cautious with a small sample size ($n=5$ girls) and the fact that it was completed in a single school. The autonomy-supportive environments align with SDT, as they provide opportunities for meaningful choice, resulting in emotionally satisfying experiences.

Feelings of competence are crucial for nurturing intrinsic motivation and, subsequently, fostering sustained engagement in PA. Research by Greenleaf et al. (2009) and Kerner et al. (2015) emphasised the significance of perceived competence in predicting motivation for PA. To enhance feelings of competence, educators should follow principles highlighted by Vygotsky (1978), Chen (2015), and Whitehead (2010), which have demonstrated positive impacts on feelings of competence (Ahmadi et al., 2023). These principles include allowing sufficient time for mastery, tailoring activities to different levels of challenge, enabling individuals to work within their zone of proximal development (Vygotsky, 1978), offering

various tasks that require diverse skill sets, and providing supportive yet progressive feedback.

Relatedness pertains to the feeling of being valued or belonging, both towards the teacher and peers in a PA and PE setting. Research by Wallhead et al. (2013), employing the Sport Education Model, demonstrated that fostering feelings of relatedness in PE positively impacted motivation and extended to increased participation in optional extracurricular exercise behaviours.

While the individual psychological needs of SDT have been studied, holistic applications of SDT in PE and PA settings have also shown promise. Studies such as those by Erdvik et al. (2014), which investigated high-school students, indicated a strong correlation between self-determination in PE and intentions for post-graduation PA. School-based interventions aligning with SDT principles have bolstered students' autonomous motivation in PE and PA (Aibar et al., 2021; Cheon et al., 2016; Tessier et al., 2010; Wallhead et al., 2013). However, some limitations persist, such as the need for further exploration of the impact of SDT interventions on PA behaviours beyond the PE setting and in the long term (González-Cutre et al., 2018). Nevertheless, systematic reviews and meta-analyses have consistently supported the effectiveness of the SDT framework in enhancing motivation within both PE and PA contexts (Babic et al., 2014; Parker et al., 2020). These reviews highlight that teachers tend to influence students' perceptions of autonomy and competence, while peers play a more significant role in fostering feelings of relatedness. Among the basic psychological needs, competence satisfaction has been most strongly associated with students' self-determined motivation.

Despite these encouraging findings, it is essential to acknowledge that many studies have relied on self-report measures to assess SDT-related constructs, which can introduce limitations due to self-perception and social desirability biases. However, a recent systematic review by White et al. (2021) distilled key findings from 34 qualitative SDT studies in PE settings, revealing three overarching themes: peers, teacher characteristics, and teacher behaviour and activities. Peers play a significant role in shaping motivation in PE settings, often with negative consequences. Peer domination can stifle autonomy and reduce feelings of relatedness, which diminishes intrinsic motivation. Comparisons between peers and instances of teasing can lower perceived competence, discouraging participation. Students

with low perceived competence often feel embarrassed and disconnected from their peers, further limiting their engagement.

Teacher characteristics, such as being friendly and enthusiastic, can positively influence motivation by enhancing feelings of relatedness. When teachers take a personal interest in students, they create stronger connections that foster a supportive environment, encouraging greater participation and enjoyment. Teacher behaviours and activities also significantly impact student motivation, with both positive and negative effects. Teachers who actively engage with students by providing feedback and showing care create a more motivating and supportive atmosphere. However, focusing on sporty students or rewarding performance can alienate less-skilled students, reducing their perceived competence. Similarly, activities like competition, grading, and keeping score can undermine feelings of competence and make PE less enjoyable. On the other hand, offering choices promotes autonomous motivation and leads to more positive outcomes. Students often feel more motivated by lifestyle-related activities, such as walking or yoga, than traditional sports.

White et al. (2021) highlighted that some teaching practices exacerbate feelings of incompetence and disconnection. Publicly choosing teams or requiring students to perform in front of others can highlight their perceived inadequacies, increasing negative emotions. Conversely, introducing novelty and variety in activities fosters autonomous motivation, while group work enhances peer relatedness, boosting both participation and enjoyment. By carefully considering these factors, PE teachers can create a more inclusive and motivating environment for all students. This further emphasises the significance of interpersonal dynamics in shaping motivation. The paper is reasonably robust, and drawing from a good number of studies helps us have confidence in the findings. However, the scope and nature of the included studies constrain the review somewhat. Many studies focused exclusively on either male or female participants, meaning the findings often reflect gender-specific perspectives rather than a comprehensive view. Additionally, most qualitative data in these studies were inductively coded. When students discuss their experiences in PE, they predominantly use language associated with autonomous motivation (e.g., enjoyment, fun) or amotivation (e.g., lack of purpose). In contrast, discussions of controlled motivation (e.g., feelings of guilt or pressure) are notably less frequent. This highlights a gap in the qualitative evidence regarding the role and impact of controlled motivation in PE settings.

Many of the elements discussed by White et al. (2021) above are either in direct control or heavily influenced by the teacher. Teacher behaviours related to SDT were the focus of work by Ahmadi et al. (2023), who brought together an expert panel of 34 academics/researchers with a grounding in SDT in PE to classify teacher behaviours as either need supportive (have a positive impact on pupil autonomy, competence or relatedness) or need thwarting (harm or inhibit pupil autonomy, competence or relatedness). Whilst the limits of this thesis prevent exploration of all these behaviours, the key behaviours identified as having the most significant impact on supporting autonomy, competence and relatedness are summarised in Table 2.4.

Table 2.4 – Teacher Behaviours Supporting Basic Psychological Needs (Ahmadi et al., 2023)

Psychological Need	Key Teacher Behaviours	Description/Example
Autonomy	Allow for student input or choice	Create opportunities for students to meaningfully direct the activities they do in class, e.g., the choice of who to work with, the activity, and the intensity.
	Teach in students' preferred ways	Align lesson activities with students' intrinsic reasons for learning rather than imposing extrinsic reasons. Align with topics/content they are interested in.
	Provide rationales	Explain the reason for performing the behaviour - e.g., why an activity is important and valuable or how it might be personally useful)
Competence	Provide optimally challenge	Offer students more challenging tasks if they find them too easy or easier tasks if they find them too difficult—e.g., providing easier/harder exercises in a circuit.
	Provide specific feedback	Provide feedback that targets a specific strategy for Improvement – e.g. specific technical feedback to improve ball striking in cricket: “watch the ball onto the bat”.
	Praise improvement or effort	Provides praise that targets the improvement or effort of the student . Ensure this acknowledges not just competence development but also recognises those trying their best.
Relatedness	Show unconditional positive regard	Act warmly toward students, especially ones who are challenging or who find the subject challenging
	Ask about students progress, welfare, and/or feelings	Show interest in how students are doing, both emotionally and in their mastery of content.

Express affection	Be warm and kind to students so students feel they are cared for.
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Whilst there are obvious strengths in the paper based on the depth of expertise in the panel and the methods used to construct the teacher behaviours that support or thwart basic psychological needs, it was particularly noted that preventing need-thwarting behaviours may be as important as promoting need-supportive behaviours. However, it is worth noting that there are a few key limitations. The panel was primarily made up of experts from westernised/developed countries, most of whom are culturally similar to the USA so that the behaviours may be contextually/culturally dependent. The teacher behaviours also did not vary by age, ability, socioeconomic group, or gender, and there may be some nuance/change depending on these variables. The study did not discriminate between “need-thwarting” and “need-indifferent” behaviours despite recent arguments for the role of need-indifferent behaviours. Indeed, many of the “thwarting” behaviours may be better classified as “need indifferent”: Chaotic or absent teaching may not actively block students’ satisfaction of needs; however, the disorganisation in the class leaves students’ needs unfulfilled. Finally, whilst the teacher behaviours are grounded in research completed by the panel, the specific combinations of behaviours identified in the paper have not yet been tested in practice, a point noted by the authors who stated that the 57 behaviours identified may be unmanageable for many teachers to remember/keep track of, perhaps teachers should take note of the top 3 or 4 behaviours in each category, as shown in the table, to have the greatest impact in a manageable way.

Building on the foundational insights offered by SDT, which emphasises the importance of autonomy, competence, and relatedness in fostering motivation and engagement, the concept of MPE offers a practical framework through which these psychological needs can be addressed in the PE context. MPE operationalises SDT by promoting pedagogical approaches that prioritise elements of PE that young people have identified as meaningful through the key pedagogies of goal setting, reflection and democratic approaches. As such, MPE serves as a valuable lens for translating motivational theory into meaningful, lived experiences for pupils in PE. This approach is explored further in section 2.6.

2.6 Meaningful Physical Education

One body of work that has come to the fore in recent times that offers a practitioner-friendly, SDT-informed, approach to PE is centred on meaningful experiences (Beni et al., 2017; Beni et al., 2019; Beni et al., 2021; Ní Chróinín et al., 2018; Ní Chróinín et al., 2019;). The researchers build on the work of Kretchmar (2006) to identify meaningful as something that holds personal significance or value to the participant; they propose that by providing experiences seen as more meaningful, participants are more likely to pursue PA in their own time and throughout the life course (Crane & Temple, 2015; Lodewyk & Pybus, 2012). Highlighting the work of Teixeira et al. (2012), which is grounded in SDT, they conclude that those who commit to lifelong PA tend to do so for the intrinsic motivational benefits of participation, such as personal meaningfulness, challenge, satisfaction, and joy.

Prioritising meaningful experiences is closely aligned with the overarching objectives of PE, as outlined in many national policy documents (e.g. DfE, 2013; Society of Health and Physical Educators, 2015; Welsh Government, 2020) and rooted in the beliefs and values held by various stakeholders, including educators, students, parents, and administrators – that PE should be a catalyst into a lifelong positive association with PA (Daly-Smith et al., 2020; García Bengoechea, 2024). Amidst the diverse array of recognised purposes of PE, MPE firmly endorses the goal of democratic transformation (Ennis, 2017), where individuals are not only afforded the opportunity but also actively encouraged to explore “different ways of being in the world as some-body are both possible and encouraged” (Quennerstedt, 2019, p. 611). From this perspective, education is perceived as an ongoing process of transforming experiences, with the aim of nurturing educative encounters that lead to the development of further experiences, which is in line with Dewey's educational philosophy (Dewey, 1938). Within this framework, the act of learners seeking and gaining awareness of the personal significance of movement through reflection becomes an integral component of the fundamental purpose of PE. This purpose is underscored by the recognition that PE serves as a fitting learning environment for introducing individuals to a diverse spectrum of valuable social and cultural practices (Thorburn, 2018). By enabling young people to find greater meaning in their PE experiences, we are opening them to finding personal significance and/or joy in movement. Hence, they begin to organise their lives in a way that movement and PA are prioritised (Fletcher et al., 2021). Seeking joy and satisfaction in PA becomes the primary motivator, and the subsequent wider benefits (such as improved health) are seen as secondary benefits (Kretchmar, 2006).

In their recent literature review, Beni et al. (2017) identified the common features that contribute to meaningful experiences for young people in PE and youth sports, which are summarised in Table 2.5.

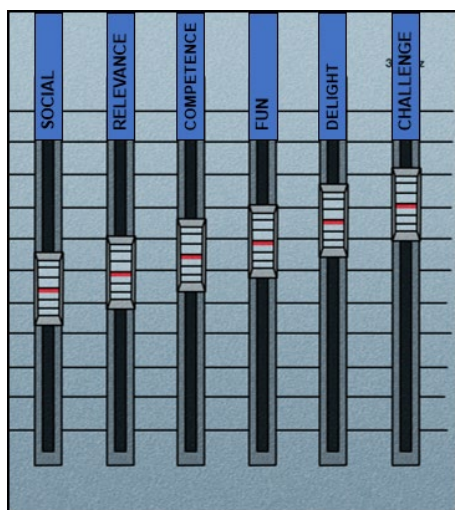
Table 2.5 – Features of Meaningful Experiences

Feature	Explanation
Social interaction	Interaction with others, including friends, peers, teachers, and even family members, was identified as contributing to a meaningful experience. On the flip side, feelings of isolation or being left out contributed to a lack of meaning. Interestingly, groups formed by both student choice and teacher selection can generate feelings of meaning.
Fun	Perceptions of fun appear to be an important motivating factor for many young people. However, different groups' perceptions of fun vary, so practitioners need to understand how this concept is perceived in a given context. Challenge and avoiding boredom, as well as pupil-centred pedagogies, appear to have a positive impact on the notion of fun.
Challenge	Engagement in activities that provided an appropriate challenge for participants was noted as another important component of a meaningful experience. Task difficulty is key to appropriate challenge, allowing pupils to complete optimally challenging tasks (e.g., those that require effort, concentration, and skill).
Competition (a subsection of challenge)	For some participants, an element of competition can be a motivating factor, while for others, it is not. PE teachers should carefully consider how competition is presented. Competition might not be for everyone or appropriate at all times. Allowing some choice in this area of meaningful experiences is key.
Motor Competence	Participants' experiences in PE were more positive when students' perceptions of their motor competence were high. Pitching activities at the right level, utilising praise and encouragement and creating a supportive social climate were identified as important.
Personally relevant learning	Participants can recognise the importance of what they are learning and can make explicit connections between their current PE and sport experiences and future aspects of daily living outside of the school or community. An element of choice helped to increase feelings of personal relevance.
Delight	Delight is more enduring than fun and grounded in powerful intrinsic satisfactions. To experience delight, one must achieve a close tie with something that is desirable but often lies at a distance or is typically out of reach.

(Adapted from Beni et al., 2017)

Analysing the intricacies of MPE literature, considering the identified features and pedagogies, offers an opportunity to draw parallels with previous research on motivation and PL. Several noteworthy connections emerge, shedding light on the intersection of these concepts, theories and frameworks. The social aspect of PE, for instance, harmonises well with the construct of "relatedness," emphasising the importance of fostering a sense of belonging (Deci & Ryan, 1985; Ryan & Deci, 2000). Creating an environment where students feel connected socially aligns with the overarching goal of nurturing relatedness within the context of MPE. Furthermore, the notion of fun within MPE closely correlates with the concept of situational interest in PL (Chen, 2015). Situational interest revolves around novelty, challenge, and enjoyment, factors that contribute to the creation of fun experiences in physical activities. An optimal level of challenge and the cultivation of feelings of motor competence in MPE bear clear connections with SDT (Deci & Ryan, 1985; Ryan & Deci, 2000) and PL. Nevertheless, a pertinent challenge in this regard is accommodating lower-ability students who may require more time and support to develop these feelings, particularly within the constraints of time-limited PE classes (Barnet et al., 2016). The concept of personally relevant learning within MPE intersects with elements of autonomy (SDT) and self-regulation (Chen, 2015). Empowering students to have a voice and choice in the design and delivery of PE curricula/lessons addresses the need for autonomy and self-regulation. While incorporating all these MPE elements into PE presents a formidable challenge, employing a checklist approach to planning, delivery, or reflection can be too simplistic, given the diverse abilities and preferences within a single class (Beckey, 2021). A more pragmatic approach might involve emphasising one or more MPE elements and acknowledging their interrelated nature, in a more relational approach where it is acknowledged that the features frequently overlap and influence each other to some degree (Beckey, 2021; Fletcher & Ní Chróinín, 2021). Beckey (2021) uses the analogy of an equaliser (like DJ Decks – see Figure 2.3), where teachers (or pupils) can amplify a feature by placing greater focus on it. However, we must acknowledge that amplifying one feature may also have an impact on another, but perhaps not to the same extent (e.g. by increasing challenge, it may also decrease feelings of competence, or by increasing social elements, it may increase fun). What we need to remember is that the impact of different features on one another will likely vary from child to child, so knowing your pupils and actively talking to them about their experiences are vital.

Figure 2.3 - The Equaliser Approach to Meaningful Physical Education Features (Beckey, 2021)



Holding equal significance to the features of MPE are the pedagogies that guide the approach (Fletcher & Ní Chróinín, 2021). These are the use of democratic approaches to facilitate the personalisation of experience (key areas are inclusive practice and pupil voice) and the use of reflective processes to facilitate the evaluation of experiences through a continuing process of goal setting and reflection on those goals. Pupils can then identify the purposes of their involvement, recognise the value of their efforts, and connect their participation to their wider lives. By embracing these pedagogical principles and keeping the key features of MPE in mind, it is anticipated that teachers can provide the conditions for personally significant experiences to occur, therefore increasing the likelihood that pupils will embrace PA in their own time and beyond the school years.

Democratic approaches position teachers and students as learning collaborators in a flatter hierarchy than we see in traditional classrooms, as students are provided with increased opportunities for autonomy and agency so that they can make their own choices about their experiences and use their views to contribute to the planning and delivery of their PE lessons (Fletcher et al., 2021). Examples on a micro level include choices over groupings, activities within classes, intensity levels or equipment. On a macro scale, this may influence curriculum design, PE kit choices, or investment in new facilities/equipment. These autonomy-supportive strategies help to promote intrinsic motivation, which has been shown to facilitate longer commitment to active participation across the lifespan (Teixeira et al., 2012). Fletcher et al. (2021) note that this process should be one of gradual empowerment, where the choices offered are developmentally appropriate to the child/group, and the teacher can gradually

increase the influence of the pupils. They are also keen to note that this is not an ‘anything goes’ scenario or that children’s preferences must always be accommodated; instead, through interaction and negotiation, students can be helped to engage with and find value in PA experiences that may not be initially appealing or be given alternatives to draw them into an experience. It is also worth acknowledging that student voice practices are not without their challenges. Mayes et al. (2019), in their study of student voice practices in Australian primary schools, reported challenges linked to engaging all children (loud or confident pupils can often dominate student voice) and the need for student voice practices to be developmentally appropriate (e.g. younger pupils often struggle writing their thoughts down). More specifically, in PE settings, Howley et al. (2014) investigated the use of student voice in Irish secondary PE with 24 pupils of mixed sex aged 15-16 years. Whilst highlighting positive outcomes in terms of pupil buy-in and the impact on enhanced learning experiences, the challenge of hearing from all pupils and the fact that some pupil voice suggestions were viewed as “crazy ideas”, as well as finding the time and space to facilitate discussion around more significant ideas (such as curriculum) were all seen as areas teachers may need to consider.

While research explicitly operationalising MPE features and pedagogical principles remains in its early stages, recent studies have demonstrated positive outcomes (Beni et al., 2021; Cardiff et al., 2023; Vasily et al., 2020). These studies often combine MPE pedagogical principles through action research case studies. For instance, Vasily et al. (2020) implemented a unit of cycling-based activities with two groups of 10-11-year-olds over two years in an international school based in Saudi Arabia. He was aiming to use the features and pedagogical principles of meaningful PE to shape the unit delivery. Data was gathered from the teacher (who was the lead author) through interviews and analysis of blog post reflections, teaching resources, and tweets related to the unit. While noting the challenges of implementing pedagogical change, such as the difference between intended and enacted practice and maintaining the fidelity of the approach, positive findings were evident, with several students seeking to transfer practice from PE into their own time through recreational and extra-curricular cycling. Interestingly, one of the features of MPE came to the fore; this was the element of challenge and finding the “just right challenge”. Much like the equaliser approach discussed previously, finding the feature to amplify seemed to be an important part of the success of the unit; knowing which feature is right to emphasise within any given group could be the real challenge. Several areas enabled the meaningful approach to be enacted, including the notion of MPE aligning with the teacher’s philosophy, particularly

embracing student voice in the unit design. Another area that allowed the approach to succeed was the school culture that embraced the use of pupil autonomy and the physical nature of the site, which provided plenty of options for a cycling unit. Whilst the research showed positive outcomes, it is, of course, very small-scale and context-dependent. There was also no control group to which to compare results, and the authors in the study are perhaps guided by their position as conceptualisers of the approach. Whilst elements of pupil response are included through the teacher observations and reflections, no data were directly collected from the children, which could also add another layer of depth to the research.

In a similar approach, Beni et al. (2021) utilised the MPE approach with five Irish primary school teachers, providing training on the approach followed by implementation in each of their schools. Whilst the study duration was relatively short, it could be argued well within the honeymoon period of pedagogical change (Goodyear & Casey, 2015), positive outcomes were obtained from the teacher's perspective. Once again, teachers placed greater emphasis on certain aspects of MPE; this relates to a similar point from the previous findings surrounding teachers' beliefs and philosophy. However, some teachers were able to note the relationships that exist between features, describing them as symbiotic – implying a more relational approach to the implementation of the ME features. Once again, the research is small-scale and does not collect data from children themselves, so it relies mainly on teacher perceptions and observations.

More recently, Cardiff et al. (2023) implemented a range of student voice pedagogies with 10-11-year-old primary school children (n=39) in Ireland over 18 months, positively collecting data directly from pupils via several qualitative data sources, including scrapbooks and focus groups. Three key themes were apparent in the findings: my voice counts (inclusion of their voices during PE lessons mattered greatly to the children and offered a means by which to develop their capacity to engage in democratic practices), I can use my voice to make choices that matter to me (illustrating how a pedagogy of choice can be used to support children in considering their learning needs being both listened to and acted upon), and taking control and getting to be in charge (Children valued taking responsibility for their own learning in a way that benefitted them). On a small scale, using just one teacher in one school and the potential influence exerted by being a teacher-researcher, the work offers more support for using student voice and choice, even with relatively young pupils.

Finally, the only quantitative research directly aligned with MPE, Alshuraymil and Hastie (2024) used pre- and post-intervention surveys to assess the meaning pupils associated with a

sport education intervention. The results of the independent samples t-test utilised in the research showed that significantly higher levels of meaningfulness were identified from participation in sport education than in previous physical education. They did, however, encourage further use of mixed methods approaches to the assessment of MPE, which are reflected in the present study.

Drawing conclusions on the MPE work to date, although still in its early stages and often located in small qualitative case studies, typically with younger pupils (primary age), with limited data collected directly from pupils, and conducted by a small group of the same researchers the MPE approach appears to provide a promising framework for analysing and implementing PE experiences that could promote a physically active lifestyle. The MPE features, coupled with clear pedagogical principles, closely align with prior work on PL and motivation (including SDT). Future research should prioritise the sustained application of the MPE approach, interventions with more diverse pupil groups (particularly older pupils) coupled with comprehensive data collection using varied methods from both educators and young people to fortify its empirical foundations.

Building on the idea of MPE, specifically personal relevance and democratic approaches, we now consider how the PE curriculum could evolve to better reflect societal trends by integrating LS.

2.7 Growth and Potential of Lifestyle Sports

The realm of physical activities has witnessed remarkable growth in recent times, particularly in the domain of lifestyle or alternative activities, recognised as one of the prevailing megatrends of the twenty-first century (Beaumont & Warburton, 2020; Gilchrist & Wheaton, 2017; Hajkiewicz et al., 2013; Sport England, 2024). This surge encompasses various activities such as parkour, skate sports, diverse forms of cycling, new-age fitness activities, and outdoor pursuits like paddleboarding and climbing. Gilchrist and Wheaton (2016) have scrutinised the features of these activities, highlighting their defiance of conventional sport norms and their challenge to the 'achievement sport' culture. These activities typically demand significant commitment, revolve around participation rather than spectatorship, and attract participants from increasingly diverse backgrounds—an aspect where traditional PE curricula often fall short. Moreover, they often forge strong links with lifestyle, sub-culture, and identity, fostering sustained engagement and emphasising individual mastery over social

comparison (Poulson, 2016). Given these characteristics and the surging popularity of such activities, a compelling argument can be made for their increased inclusion in PE curricula, potentially enhancing sustained engagement more effectively than many traditional sports (Beaumont & Warburton, 2020; Binney & Smart, 2017).

Corresponding with the features of MPE (Beni et al., 2017), lifestyle activities are evidently personally relevant, provide appropriate challenges, feature strong social components, demand motor competence, and are perceived as enjoyable by many individuals. These activities often forgo formal competition, a sub-feature of challenge in MPE, which contributes to their appeal, considering that competition within PE curricula can alienate some participants (Land, 2012; Smith et al., 2015; Wintle, 2018; Wintle, 2022).

Recent calls for greater use of lifestyle sports in PE settings are evident in recent work from several scholars who have highlighted the potential of lifestyle sports to contribute to the development of PE curricula (Beaumont & Warburton, 2020; Griggs & Fleet, 2021; Leeder & Beaumont, 2021; Wintle, 2022). Given the often-narrow nature of many schools' curricula, often centred on competitive (usually team) games (Banville et al., 2021), with limited input from pupils in curriculum design (Hardwicke et al., 2022), the use of lifestyle sports offers a potential new avenue for PE teachers to explore. In their 2020 chapter, Beaumont and Warburton issued somewhat of a rallying cry for the use of lifestyle sports in PE, stating:

“We believe that lifestyle sports have something to offer that is much needed and missing from current PE curriculums. If PE is to be relevant to youth culture and help to spur our young people into leading healthy, active lives beyond school, we need to align PE with the interests and activities that our young people want to participate in.” (p. 248)

They go on to highlight that some of the key features of lifestyle sports, such as a lack of direct competition and the elements of risk and adventure, may broaden their appeal to those who have not found meaning in traditional sports. They do, however, warn against adding to the menu of activities on offer in PE and advocate for a rebalancing of the traditional (competitive sport) with the new (lifestyle sports/activities).

Griggs and Fleet (2021) built on the call above with their aptly titled article “Most People Hate Physical Education and Most Drop Out of Physical Activity: In Search of Credible Curriculum Alternatives”. The paper adds to the call to try more new-age activities in PE curricula and highlights lifestyle sports as an area of huge potential. They note the high commitment that these activities often inhibit within their

participants and how they often become a way of life, with strong identities and subcultures that exist around them. Whilst they provide parkour as a good example of a lifestyle sport with huge potential in PE settings, the other activity they chose to highlight was ultimate frisbee (an invasion game involving two teams trying to score in an end zone in a similar way to American Football or rugby). This was contentious, as this is another highly competitive invasion game. This format already dominates many PE curricula, and whilst the spirit of the game intends to offer a less aggressive form of competition, this activity would likely appeal to pupils who already favour this format of activity (team-based, competitive games). This perhaps shows a good example of the limited understanding of lifestyle sports in PE settings. On a more positive note, they highlighted both parkour and ultimate frisbee as being easily transferable to the PE setting, with facilities and equipment presenting limited issues.

One issue that has been raised in the literature surrounding lifestyle sports in PE is teacher training (Leeder & Beaumont, 2021). In their study, Leeder and Beaumont (2021) aimed to explore the opportunities and challenges PE teachers in the UK may face when incorporating lifestyle sports into PE. They also aimed to understand PE teachers' current professional development needs to enhance their practice in this area. Data were collected via an online qualitative survey involving 53 UK-based PE teachers. Three key themes were found within the data: (1) PE teachers' understanding, conceptualisation, and delivery of lifestyle sports; (2) challenges to delivering lifestyle sports within the PE curriculum; and (3) the learning needs and CPD preferences of PE teachers. Reviewing the findings, teachers defined lifestyle sports in several ways, highlighting the lack of conceptual clarity associated with the term, which often led to confusion and misalignment. Several teachers were happy to share that they had not heard of the term and had a limited understanding of the activities associated with the lifestyle sports label. What was significant was that, in general, teachers were unable to provide clear examples of lifestyle sports being delivered within their school's curriculum, which helps to explain participants' limited understanding of the term. When exploring some of the challenges to delivering lifestyle sports in PE, teachers' limited experience was attributed to several logistical issues, most notably factors such as a lack of time, funding, and access to resources and facilities. However, often, a more significant barrier was the influence of a school's or department's ideology and culture. Specifically, if a school's leadership team or Head of PE did not value, understand, or see the relevance of lifestyle sports, participants' ability to modify 'traditional' sport-

based curriculums was severely hindered. This issue was often confounded by a lack of training in the domain of lifestyle sports, with many participants highlighting that the notion of lifestyle sports was rarely discussed within initial teacher education (university or school-based). At the same time, teachers also highlighted that they had limited opportunities to attend professional development focusing on lifestyle sports.

Several small-scale studies (Amador et al., 2010; Benham et al., 2013; Grabowski, 2015; McNamee & Timken, 2017; Vasily et al., 2020) have explored the implementation of diverse activities in PE, including parkour, cycling, Zumba, and several outdoor pursuits. Findings consistently reflect positive outcomes in terms of student engagement, enjoyment, and, notably, intentions to participate in the future. Moreover, these activities have proven effective in reaching students who typically exhibit little interest in traditional (often competitive) sports. McNamee and Timken's (2017) study highlighted that the uniqueness of such activities helped level the playing field, break the monotony, infuse energy, and provide less competitive children with opportunities to shine.

Given the contents of the review thus far, it appears logical that intertwining an MPE approach with high-growth lifestyle sports holds great potential or is at least worthy of further investigation. By embracing these activities in the curriculum, delivered through a complimentary pedagogical approach (MPE), PE programmes may have the potential to engage young people in activities that are not only enjoyable but also relevant to their daily lives, increasing the likelihood of their experiences being seen as meaningful. This integration provides a potential bridge between school-based PE and lifelong PA, aligning with the goal of nurturing positive PA habits in young people and aiding their PL journeys.

Analysing one high-growth lifestyle sport (parkour) in greater depth to demonstrate how it can align with the features of MPE and foster ongoing participation is a worthwhile addition here. Parkour entails navigating urban environments through efficient body movement—a method originating in France in the 1980s, now recognised as both an urban lifestyle and a sport (Parkour UK, 2017). It involves intermittent displacement of the body, often over various obstacles of differing size and shape, requiring decision-making regarding the most efficient movement patterns (Croft & Bertram, 2017). Practitioners aim to minimise energy expenditure, save time, and dynamically overcome obstacles with acrobatic finesse (Bavinton, 2007; Marchetti et al., 2012; Miller & Domoiny, 2011). Further research (Marchetti et al., 2012) underscores the physical demands of parkour, demonstrating that regular practitioners exhibit higher levels of physical performance across various fitness tests

compared to active individuals. This showcases the appropriate level of challenge and the demand for motor competence inherent in parkour.

Recent figures from Sport England (2024) underscore the popularity of parkour, with over 118,000 people participating at least twice in the 28 days preceding the survey. The surge in parkour's popularity, particularly among young people, emphasises its perceived fun and personal relevance (Angel, 2011; Clegg & Butryn, 2012; Gilchrist & Wheaton, 2011).

From an educational standpoint, it is imperative to equip students with a repertoire of movement patterns and skills that enable them to adapt to diverse courses and environments (Savelsbergh & Wormhoudt, 2019). Parkour stands out as it utilises these strategies not against opponents in direct competition but against the environment and different situations, promoting individualised problem-solving skills and efficiency in tackling routes. The optimal solutions vary from student to student, encouraging individual thought and an understanding of their capabilities and limits. In parkour, challenges and competition revolve around overcoming the environment rather than competing against peers.

Despite its individual nature, parkour incorporates a significant degree of social interaction and identity formation. Participants often gather in groups to practice and display skills frequently and for extended periods (Gilchrist & Osborn, 2016). This combination of factors underscores the fun associated with parkour for many participants.

Grabowski and Thomsen (2015) explored the use of parkour in PE, gathering interview data from pupils and teachers who had delivered parkour in their schools. Children highlighted how parkour allowed them to explore new meanings linked to their health and competence, with some highlighting how the new experiences prompted them to adopt new healthy behaviours outside of PE, such as going for walks. The subtle changes in how children saw themselves (health/PA identities) as a result of engaging in a parkour intervention provide some insight into the potential of these activities. They also noted how parkour challenged some of the dominant ability and gender hierarchies that traditionally exist within PE classes. One example provided was linked to a boy who typically existed on the periphery of PE classes but, within the parkour lessons, had found his niche. The ability of LS to target those typically missed in more traditional PE activities aligns well with much of the previous work in this area. Finally, they highlighted how parkour generated a strong sense of togetherness and camaraderie through its social elements and non-competitive nature. While the study is small-scale, it does offer some insight into the potential of LS (specifically parkour) to promote positive outcomes for young people in PE.

In conclusion, parkour, as an exemplar of LS, has the potential to meet several MPE features that could enhance its integration into PE curricula. Its emphasis on personal relevance, appropriate challenge, social engagement, motor competence, and fun aligns well with these features. As such, parkour, along with other lifestyle activities, holds promise as an effective means of promoting sustained engagement within the PE context.

2.9 Chapter Summary

The research discussed above highlights the need for change in current practice in PE. This will enable PE to have a more significant positive influence on all young people to find a meaningful relationship with PA and movement, allowing young people to access the range of benefits associated with PA participation (not just physical health but joy and meaning). Childhood and adolescence offer a window of opportunity to create PA habits that track into adulthood with reasonably strong stability, and schools and PE provide an excellent opportunity for us to have access to and time with young people to make a transformational difference in their lives. The concept of PL provides us with a guiding framework and/or goal and approaches informed by SDT, and MPE can operationalise this. It appears there is a need to modernise PE curricula to serve the changing engagement patterns in PA better, and lifestyle sports offer us one option to explore in more depth. PE should be relevant to youth culture and help to spur our young people into leading healthy, active lives beyond school. In that case, we need to align PE with the interests and activities that our young people want to participate in, such as LS, and combine this with a complementary and impactful teaching approach, such as MPE. Change is often time-consuming and challenging and does not always result in immediate impact, and this has been explored through the professional socialisation of PE teachers and change management models. However, the evidence here suggests that when teachers commit to meaningful change with pupils at the centre of their decision-making, we can make strides to improve PE experiences for all pupils.

Given the evidence within this chapter, the following research questions, aligned with the aims and objectives within the introduction chapter, have been developed to guide the remainder of the study:

Overarching Research Question:

How can LS be integrated into PE to enhance meaningful experiences for young people while addressing barriers and enablers to sustainable curriculum change?

Subsequent Research Questions:

- To what extent do pupils perceive current PE as providing meaningful experiences, and what features contribute to or limit this?
- How effective is a LS intervention, guided by MPE, in fostering meaningful experiences for young people in PE?
- What are the key barriers and enablers to integrating LS within PE curricula, and how can these be navigated for sustainable change?

Chapter Three - Methodology

A key feature of good quality research is that it is ontologically and epistemologically positioned (Overton, 2015), has a clear rationale for paradigm selection (Landi, 2024) and a logical and robust set of methods to sample, collect and analyse data whilst remaining ethically sound (Connolly, 2016; O’Sullivan, 2007). The purpose of this chapter is to outline the methodology and methods that were implemented to address the research aims and objectives provided in the introduction chapter. This intends to give the reader assurances that the research process undertaken was robust and has produced valid and reliable results.

The remainder of the chapter will provide more detailed information regarding the research methodology and processes used to collect and analyse the various data sources, alongside ethical considerations and steps taken to ensure the quality of the data gathered.

In framing this research within a pragmatist paradigm, it is essential to outline the epistemological and ontological foundations that underpin this approach. Pragmatism, as a philosophical stance, is distinguished by its rejection of rigid dualisms and its emphasis on action, experience, and practical consequences as the basis for knowledge generation (Dewey, 1938; Biesta & Burbules, 2003). From an ontological perspective, pragmatism embraces a relational, contingent, and dynamic view of reality. Rather than adhering to a strict realist or relativist position, pragmatism posits that reality is shaped through human interaction with the world. This aligns with a transactional ontology (Morgan, 2014), in which reality is not fixed but emerges through lived experiences, social interactions, and cultural practices. Within this research, this perspective is particularly relevant in examining the integration of LS in PE, as it acknowledges the shifting and context-dependent nature of meaning and curriculum change.

Pragmatist epistemology is rooted in the belief that knowledge is constructed through experience, inquiry, and action (Dewey, 1986). Unlike positivist paradigms that seek objective, universal truths or constructivist approaches that emphasise subjective meaning-making, pragmatism focuses on what works in a given context (Creswell & Plano Clark, 2018). Knowledge is not an end in itself but a tool for solving problems and improving practice. This research, therefore, adopts a problem-solving epistemology, recognising that understanding meaningful experiences in PE and overcoming barriers to curriculum change requires an iterative, inquiry-based approach. By engaging with teachers and pupils, this

study acknowledges the plurality of perspectives and emphasises practical applications of research findings.

By situating this study within a pragmatist framework, the research methodology is guided by flexibility, responsiveness to real-world conditions, and a commitment to generating actionable knowledge (Clarke & Visser, 2018; Hammond, 2013; Morgan, 2017). This epistemological and ontological stance justifies the use of MM, which is discussed in more depth in subsequent sections, integrating qualitative insights from participant experiences with quantitative data to assess the impact of LS interventions. This approach ensures that findings are not only theoretically robust but also practically meaningful for educators, policymakers, and practitioners seeking to enhance PE curricula.

3.1 Philosophical Approach - Pragmatism

The research philosophy adopted for the study was pragmatism, based on the initial work of Dewey (1986), centred around the need for inquiry when encountering situations where it is initially unclear how to act. In terms of epistemology, pragmatism acknowledges that there is no single way of learning, but there are many different ways of understanding a given problem because there are often multiple realities (Clarke & Visser, 2018; Collis & Hussey, 2014; Saunders et al., 2012;). Knowledge of the various realities is therefore gained through the integration of multiple research methods encompassing both qualitative and quantitative approaches. Through this integration, the researcher gained a better understanding of the problem being studied from the perspectives of people who lived the experiences, specifically the pupils, the teacher-researcher, and gatekeeper teachers (GKT). This mixed-method (MM) approach enhances the understanding of the research aims and results, leading to greater confidence in the conclusions made regarding the research problem.

Pragmatists contend that a false opposition exists between the qualitative and quantitative paradigms (typically positivism and interpretivism) and their related methodologies. So, they promote the integration of methods associated with both paradigms in a single study.

Pragmatists ascribe to the philosophy that the research aims should drive the methods implemented, believing that

“Epistemological purity doesn't get research done’ ... In any case, researchers who ascribe to epistemological purity disregard the fact that research methodologies [sic] are merely tools designed to aid our understanding of the world.” (Onwuegbuzie & Leech, 2005, p. 377).

Hammond (2013) builds on this belief that pragmatism offers the best of both worlds, in that research should be driven by the aims and not the position of the researcher, advocating for action over philosophy, where a pragmatic approach offers “wholism” when viewing a complex problem. Pragmatism is centred on finding workable solutions that find a way around any pre-conceived bias of singular approaches, allowing both quality and depth. Table 3.1 summarises some of the critical elements of a pragmatic approach.

Table 3.1 – Pragmatism (Clarke & Visser, 2018; Hammond, 2013; Morgan, 2017; Onwuegbuzie & Leech, 2005; Onwuegbuzie et al., 2009)

Pragmatism – seeks to improve practice by the application of concepts

Ontological assumptions (nature of reality)	Epistemological assumption (what constitutes acceptable knowledge)	Axiological assumption (role of values)	Suitable methods
Reality is complex	Practical knowledge (know-how) is valued highly.	Values of the researcher and respondents drive the research.	Multiple approaches and methods are needed to answer the research questions/objectives and find practical solutions.
Reality constitutes a flow of processes, experiences and practices.	Knowledge that turns into practice in a particular context.	The research process begins with the problem that is valued by the researcher or the affected social unit.	Qualitative, quantitative, mixed methods and action research.
There are multiple realities – what works?	Truth judged by consequences	Researcher is reflexive.	

Within educational research, pragmatism has received positive attention in providing a helpful lens to solve complex problems (Clarke & Visser, 2018; Kalolo, 2015). Within PE specifically, Casey et al. (2018, p 4.) provide further advocacy for taking a pragmatic approach to research with the direct aim of influencing changes in practice

“If our aim is to avoid the status quo, and if our ambition is to break the hold of our dominant practices, then we need to better understand the world in which we live. That is not to say we need to better understand the world itself but that we need to understand our world. John Dewey describes this as a pragmatic ontology and suggests that this characterises reality as living within an individual’s experiences”

Based on the research evidence and a strong desire to have a real-world impact, pragmatism, along with its associated MM approaches, provides a highly suitable philosophy to underpin this study. The pragmatic lens provided an approach that addressed a real-world problem, offered flexibility and adaptability to choose the most suitable methods, focused on solutions and outcomes, and integrated both theory and practice (Clarke & Visser, 2018; Kalolo, 2015; Morgan, 2017).

3.2 Study Design

The research project was conducted in three clear phases, with each phase designed to meet at least one of the research objectives. These phases are viewed as mini-studies within the larger project that are primarily aligned with the research objectives outlined in the introduction chapter. The initial phase sought to garner pupils' views of their current PE provision using a researcher-designed questionnaire aligned to MPE. The second phase of data collection ran in parallel to the unit delivery. It sought the views of the GKT (through lesson observations) and the teacher researcher (through reflective journaling) on how the unit was being delivered and received by pupils. The final phase involved gathering data on the effectiveness of the intervention from both the pupils (via the same MPE questionnaire completed earlier [allowing later comparison] and focus groups) and the GKT through a one-to-one semi-structured interview.

Aligned with a pragmatic philosophy, a MM action research study design was implemented. Pragmatism and MM research form a powerful union in both philosophy and approach (Oquist, 1978; Saunders et al., 2018). Pragmatism's focus on practical consequences also aligns seamlessly with MM action research with a commitment to real-world solutions (Stark, 2014). Together, they emphasise active engagement, collaboration, and adaptability. By prioritising effectiveness over rigidity and fostering partnerships between researchers and stakeholders, as well as a balance between theory and practice, research is not only theoretically sound but also directly applicable and beneficial to society (Hammond, 2013). In essence, pragmatism and MM action research champion a holistic approach to inquiry that drives positive change through practical action and reflective inquiry.

According to Cohen et al. (2018), a MM approach avoids a mistaken allegiance to either qualitative or quantitative methods and enables rich data to be gathered, which affords the

triangulation that has been advocated in research for many years and has been specifically called for in PE settings (König, 2016). It has been suggested that a MM approach can help us understand issues at a more profound level. Morgan (2017) summarises this well, stating that MM research combines the strengths of both qualitative and quantitative methods, allowing the researcher to explore findings that could not have been discovered with one method alone.

Several definitions for MM have emerged in the research literature that have relied on various elements of methods, processes, philosophy, and design (Johnson et al., 2007). Whilst there is some clear overlap in the nineteen definitions cited in the Johnson et al. (2007) paper, for this study, Creswell and Plano-Clark's (2018) definition provides clarity, stating that MM research is a design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection, analysis, and mixture of qualitative and quantitative approaches in distinct phases of the research process (as can be seen in the pragmatic philosophy). According to Creswell and Plano-Clark (2018), the key philosophical assumptions involve complementarity (the assumption that qualitative and quantitative methods complement each other, providing different perspectives on the same phenomenon), triangulation (the belief that using multiple methods strengthens the validity and reliability of their findings), dialecticism (recognising that different perspectives may lead to contradictions or tensions in the data, where researchers acknowledge and explore these contradictions, seeking to uncover deeper insights) and finally contextualism (acknowledges the importance of context in shaping research findings, recognising that qualitative methods are well-suited for capturing the nuances of context, while quantitative methods can provide more generalisable insights that may be applicable across contexts. They believe that combining these methods enhances the richness and depth of understanding beyond what either approach could achieve alone. As a method, MM research focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone.

Based on this definition, Creswell and Plano-Clark (2018) suggested four critical decisions involved in choosing an appropriate MM design; these are outlined below with detail on how they were integrated into the present study:

1) The level of interaction between strands - This decision refers to the extent to which qualitative and quantitative strands are either implemented independently or interact. Within this study, the two strands interact to some extent in distinct phases of the research, which will be outlined further in the data collection section.

2) The relative priority of the strands - This decision refers to the relative importance or weighting of the qualitative and quantitative methods to answer the research questions. In this study, greater emphasis is placed on qualitative methods, and the quantitative method is a secondary, complementary element that provides a broader overview due to the larger sample size within the quantitative elements. The qualitative data helps add depth and explanation to the quantitative findings.

3) The timing of the strands - This decision refers to the temporal relationship between the qualitative and quantitative strands within research. This study utilised a multiphase combination of timing with pre-unit, during-unit, and post-unit data collection. The quantitative elements took place only pre- and post-intervention delivery, with qualitative approaches running throughout. This is explored in more depth in the data collection section.

4) The procedures for mixing the strands - This decision refers to the point when researchers decide the approach for mixing the two approaches within their MM designs. With a multi-phased approach to the study, mixing during interpretation will occur. Conclusions will be drawn by reflecting on what was learnt from both methods and comparing and, where relevant, synthesising the findings from both methods in the discussion of findings.

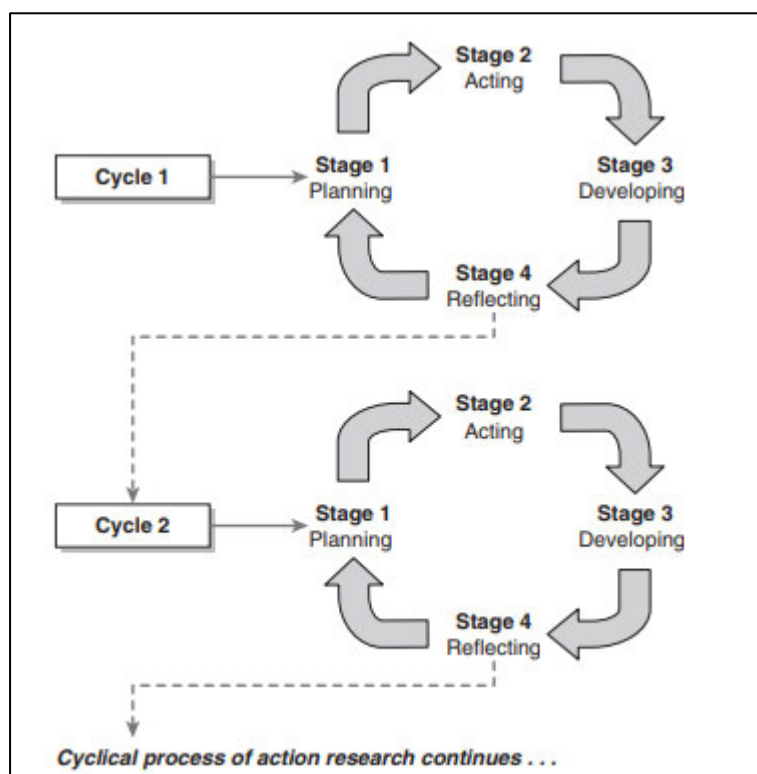
Advocacy for the use of MM research to drive improvements in education can be seen in recent work by Sammons et al. (2014), who commented positively on the impact of using MM to drive change and improve pupil outcomes. More specifically, within PE settings, Anguera et al. (2012) and, more recently, Vors and Bourcier (2021) have advocated that MM designs provide both a suitable and exciting approach to investigating the variable and complex problems that arise in this context. MM research is not without its pitfalls, and it would be naive not to acknowledge and plan for these. Dawadi et al. (2021), drawing on a broad evidence base, highlight some of the common challenges and criticisms levelled at MM research. Firstly, data collection and analysis might be a very lengthy process. This was mitigated in this study by ensuring each data point added value to the research and was manageable to handle as a lone researcher. Secondly, integrating quantitative and qualitative data has been a challenge for many MM researchers, who have doubts and limited guidance

on the process. Within this study, a clear plan for integration was set out ahead of data collection (see point 4 above). Thirdly, the potential for conflicting results from different sources poses another problem. This is where an element of self-critique and honesty is needed when evaluating the quality of the data and the processes used for collecting this. When contradictions do occur, these must be met head-on, and evaluations must be made as to why they might occur (e.g. weak instrument design or poor researcher implementation). Finally, a strong rationale is needed for MM designs, particularly the weighting between qualitative and quantitative elements, which is highlighted in point 2 above. By being aware of the strengths and limitations of MM research, the researcher's view was that the potential benefits outweighed the challenges. Also, being aware of the difficulties before implementation meant that decisions could be made to mitigate or limit these.

3.2.1- Action Research Approach

The study design was centred on an AR approach. AR is a process for reflecting on and improving educational practice. It involves action (typically in the form of an intervention), evaluation (of the intervention's effectiveness), and reflection (both during and after the intervention) (McNiff, 2017). It is a process to gather evidence to implement change in practices. The use of AR in education settings has been seen to provide a stimulus for real change and aligns well with the pragmatic nature of this enquiry (Jacobs, 2016; Savin-Baden & Major, 2013). In addition, when used in education settings, the AR approach study offers teachers context-specific continuous professional development, providing a platform to improve teacher-pupil relationships through democratic approaches, and acknowledges the ever-changing reality of life in schools by providing some flexibility in the intervention design and implementation. It is important to note that within the study, the AR approach outlined followed a cyclical process (Armour et al., 2012; Mertler, 2020; Mertler & Charles, 2008).

Figure 3.1 – Action Research Cycles (Armour et al., 2012)



To align with the cycles described above, the intervention was reviewed and tweaked throughout the process based on pupil and teacher responses. This meant that after each lesson in the intervention, the evaluations from observing teachers and reflections from the teacher researcher informed the design and delivery of the subsequent lesson. Action research has been widely used in PE settings in recent years, with good evidence to suggest it is a suitable approach for testing new ideas and developing future practice (Bodsworth & Goodyear, 2017; Casey & Dyson, 2009; Sánchez-Oliva, 2017).

3.3 Research Recruitment and Settings

For this action research to take place, two schools were needed to act as host sites for the lifestyle sports intervention units, using one PE class in each school. Two sites were deemed necessary based on the timescales of the research project, the size of the research team ($n=1$), and, most importantly, providing enough data on which conclusions could be drawn to meet the research aims and objectives, ensuring a degree of trustworthiness and credibility (Onwuegbuzie & Collins, 2017).

To recruit schools, the researcher attended district Heads of PE meetings in two areas of South-west England. At the meetings, the researcher was able to provide a brief overview of

the research project by delivering a short presentation (see Appendix A) and asked for expressions of interest from any school that would be willing to host the study. Four schools expressed interest in hosting the research, so follow-up meetings were conducted with each Head of PE at their school. Here, I was able to assess whether the proposed study would fit with researcher availability (I was working full-time as a university lecturer during the study), allow access to suitable class groups at the school sites (timetabling), and make some checks on equipment and facilities and offer some suggestions of the type of lifestyle sport that would be viable. Following these conversations, two schools remained as workable options to host the study. The process above relied on a hybrid of purposive, criterion and convenience sampling (Cohen et al., 2017). The convenience element derived from the location of the schools; they needed to be reasonably local to the researcher as across the duration of the project, for both project administration and teaching the interventions, multiple site visits were required. The purposive and criterion elements were that the schools were willing to host the research and had suitable groups for the project to work with (normal PE groups, aligned with researcher availability, had room in the curriculum for the intervention units). Whilst there may be the opportunity for some sampling bias to occur since the schools/departments/teachers were open to the research intervention, this was mitigated by providing a detailed description of each school setting as well as being aware of this when concluding the project findings (Male, 2016; Thomas, 2023).

School 1 - Park School (pseudonym) – Contextual, Participant Information and Intervention Information

Park School is a grammar school with academy status located in the suburbs of a large town in South-West England. It caters for pupils aged 11 to 18 years. The school is co-educational (53% boys, 47% girls), with approximately 1200 pupils attending the school at the time of the research. The school is selective (using the 11+ exam system), and therefore, academic achievement is very high on entry. The school also had a very high Progress 8 score (0.88- “well above average”, national average 0.0), showing that academic achievement at the end of key stage 4 is also “very good” (UK Government, 2023). In their most recent OFSTED report (2013), the school was given an Outstanding judgement. The school draws from a large geographical area stretching beyond a 30-mile radius. The demographic of the school population does show some diversity, with 13.9% of pupils using English as a second language, but only 4% of pupils receive SEN support, compared to a national average of

12%. Just 3.0% of pupils were eligible for free school meals at any time during the past 6 years (national average = 27.1%). The school has a low overall absence rate of 4.0% compared with a national average of 9% (UK Government, 2023).

Competitive performance sports dominate extra-curricular provision at the school, and the school provides a busy calendar of competitive fixtures involving local and national competitions. There is little/no extra-curricular provision aimed at a recreational/participation level. The school benefits from a good range of facilities for PE, including a sports hall, gym (with climbing wall), all-weather pitch, outdoor court space (tennis/netball), fitness suite, and extensive playing fields.

Upon consultation with the Head of PE regarding the groups and timings for the intervention unit, it became clear that the Head of PE was quite protective of the PE curriculum (a point to discuss in later chapters), so he was struggling to see where the intervention would fit in. It was, therefore, decided that we would use a regular enrichment afternoon slot, aptly named Tuesday PM (TPM), for the intervention. The purpose of these afternoons, according to the school website, is to provide pupils with a rotation of wider development and enrichment activities across all areas of the school and has included cooking, sports, sewing, washing and ironing, bushcraft, public speaking, British Sign Language, revision skills, gender equality workshops, robotics, anti-racism training and leadership skills workshops. This allowed the intervention to use a PE staff-selected mixed-sex group that would represent a typical PE class in the school (mixed ability and attitudes towards PE), albeit with mixed sex compared to the usual single-sex PE lessons. The class had a total of 23 pupils, 11 boys and 12 girls, comprised of a mix of abilities and attitudes towards PE (based on GKT feedback). The TPM sessions are slightly longer than typical lessons at the school as they incorporate afternoon form time in the sessions. This meant lessons operated at a 75-minute time length, and pupils arrived changed (having changed at lunch) and left in their PE kit, maximising activity time. It is estimated that the unit delivered would last between 8-10 standard PE lessons of 1 hour, which would require changing time at each end of the lesson.

Considering school facilities and equipment as well as input from the Head of PE and GKT at the school (Sophie - pseudonym) and the skillset of the TR, we (researcher, Head of PE and GKT) decided the most suitable lifestyle sport to implement was Parkour. The unit plan that was agreed upon and implemented is shown in Table 3.2 below. The unit was co-designed with the GKT, and the pupil voice was considered by using information from phase 1 of data collection (see below) to inform unit design. The subject knowledge elements were informed

by the vast experience of the teacher-researcher who had been delivering parkour in schools and with youth groups for over 10 years and also aligned with the latest guidance from Parkour UK (2018). For the entirety of the unit, pupils worked in small, student-selected groups (5-6 pupils per group); these groups largely remained the same throughout the unit (only changing due to any absences). Poppy (pseudonym), the GKT, was 25 years old and was in her second year of teaching (both of which had been at the current school); she had a games-playing background and had played national-level hockey for several years.

Table 3.2 – Parkour Unit Plan

LESSON	OUTCOME/CONTENT	INDICATIVE CONTENT
1	Introduction to Parkour & Balance	• Overview of educational parkour linked to meaningful PE. • Safe practice briefing • Balance circuits and student-designed mini circuits to focus on dynamic balance.
2	Break Rolls	• Landing and jumps (distance, height, precision, landing mechanics) linked to just right challenge. Technical development of break rolls as an effective form of landing • Peer development of break roll technique understanding why and how – focus on the social element of MPE.
3	Parkour vaults	• Pupil exploration of overcoming an obstacle using efficient movement • Overview and development of 3-4 parkour vaults. • Pupil choice MPE elements built in throughout (choice of vault, height, etc)
4	Linking parkour movements using low-level courses	• Student-designed courses that allow the development of jumping/landing, rolls and vaults. • Focus on goal setting, “just right challenge” and social elements of MPE
5	Hanging, swinging and muscle ups	• Tic-tac movements, rail balance (stood and crouch) • Managing your own body to scale an obstacle • Ability to hang and swing to a specific landing point • Focus on competence and challenge
6	Student-designed courses	• Pupils will work in groups to design a course/layout that allows exploration of all elements of parkour covered so far. • Pupil choice/voice – personal relevance and fun focus of MPE.

- Create a video parkour task in small groups (reel)

Note – Lessons 5 and 6 were delivered in a double lesson due to timetabling issues at the school.

School 2 - Cross School (pseudonym) – Contextual, Participant Information and Intervention Information

Cross School is a non-selective school with academy status located in the suburbs of a large city in southwest England. It caters for pupils aged 11 to 18 years. The school is co-educational (50% boys, 50% girls), with approximately 1400 pupils attending the school at the time of the research. Academic achievement at the school is strong, with a progress 8 score “well above average” (0.64, national average 0.0). The percentage of pupils who achieved grade 5 or above in English and maths GCSEs at the time of writing was 50%, which is 5% above the national average and 2% below the local authority average (UK Government, 2023). In their most recent OFSTED report (2021), the school was given a “Good” judgement. The school draws pupils from the local area and other areas of the city. The school population does show some diversity, with 13.9% of pupils using English as a second language, 12.3% of pupils receiving SEN support compared to a national average of 12%, and 15.8% of pupils have been eligible for free school meals at any time during the past 6 years (national average = 27.1%), the school has a low overall absence rate of 5.5% compared with a national average of 9% (UK Government, 2023).

The PE provision at the school is taught in mixed-sex classes in year 7 and moves to single-sex classes in year 8 and upwards, with some activity options in years 10 and 11 also being mixed. The PE department states that it

“Aims to provide an enjoyable and satisfying programme, which should afford opportunities for every pupil to develop physically, socially, emotionally and cognitively. The curriculum offers a comprehensive and inclusive range of learning experiences to meet the needs of individual pupils and tries to encourage active involvement by all as performers, observers and officials... It is hoped that the programmes offered across the Key Stages, together with an awareness of leisure opportunities within the community, will develop these

skills and abilities required for the pupils to lead a life-long active and healthy lifestyle” (Dept web page, 2023 – see appendix B)

Whilst the department ethos is reasonably progressive with its focus on participation and inclusion, the activities offered in PE are dominated by traditional (typically competitive sports) including football, rugby union, basketball, netball, fitness, gymnastics, dance, badminton, table tennis, athletics, rounder's, tennis, cricket, softball, rugby league, strength and conditioning, softball and outdoor adventure. Pupils are typically taught an activity for 8x50min lessons. Competitive sports opportunities largely dominate extra-curricular provision, but the school also offers some recreational and health-related activities such as staff and student running clubs.

Considering school facilities and equipment, input from the Head of PE and GKT at the school (Robert - pseudonym), and the skill set of the TR, we decided the most suitable lifestyle sport to implement was a hybrid of CrossFit and kickboxing. To maintain alignment with the principles and characteristics of lifestyle sports (Gilchrist & Wheaton, 2016) the unit would be delivered in non-competitive formats with a focus on mastery, avoiding social comparison as much as possible but with strong social elements at the core. CrossFit is a training method that uses high-intensity functional movement patterns to develop all-round fitness in its participants with strong identities and sub-cultures similar to many lifestyle sports (CrossFit Inc, 2012). Whilst initially designed for adult populations, the use of CrossFit with youth populations has been accelerated by the introduction of CrossFitKids and CrossFitTeens (CrossFit Inc, 2016; Eather et al., 2015), providing appropriate and safe versions of the activities for children and teenagers in PE settings (Garst, et al., 2020; Pryimakov et al., 2023). However, the research conducted by Garst et al. (2020) and Pryimakov et al. (2023) centred on the development of physical fitness (demonstrating positive outcomes) rather than enjoyment and meaning amongst the pupils. By combining CrossFit with the combat sport of kickboxing (delivered through non-contact and pad work only), it was anticipated by the Head of PE, GKT and researcher that the activity would provide a novel and interesting intervention that was worthy of investigation. Combat sports, and in particular kickboxing, have only been featured in PE classes in a small number of studies (e.g. Santurio & Fernandez-Rio, 2014), with a recent review study (Pereira, et al., 2022) only finding 10 studies of sufficient quality to inform their analysis (many of which showed positive outcomes in terms of student enjoyment) but calls for greater use of these

types of activities are echoed in existing calls for modernisation in PE, so their efficacy can be assessed in greater depth (Binney & Smart, 2017; Stidder, 2023).

The class that took part in the research intervention were a year 7 (age 11-12 years) PE class of mixed sex, comprising 27 pupils (12 boys, 15 girls); 7 students had a diagnosed special educational need (typically dyslexia or ADHD), this particular class was chosen mainly because their availability (in terms of school timetable) aligned well with the TR. Robert, the GKT, was 26 years old and had been teaching for 4 years since qualifying (all 4 years at the current school). Robert had a background in team games, most notably football, and he had both playing and coaching experience in this activity. The unit plan that was agreed upon and implemented is shown below in Table 3.3, with each lesson using a Workout of the Day (WOD – a common CrossFit practice), some skill development linked to kickboxing techniques and opportunities for pupils to design, lead and evaluate their practice in pairs and small groups. As the unit progressed, the intention was to hand over greater responsibility to the pupils as their knowledge base in the activity increased (in line with MPE principles). Once again, the unit was co-designed with the GKT, and the pupil voice was considered by using information from phase 1 of data collection to inform unit design. Specific activity knowledge elements were informed by the experience of the teacher-researcher within these activities as both a participant and teacher, alongside guidance from CrossFit Inc. (2016).

Table 3.3 – CrossFit/Kickboxing Unit Plan

WEEK	TITLE	INDICATIVE CONTENT
1	Introduction to CrossFit and Kickboxing and MPE	• How we work introduction (pupil input) • Physical preparation – warm-ups and WODs • Correct stance in using kick shields for performer and coach • Small group interval work – speed punches and elbow strike
2	Whole Group WOD. Developing elbow and knee strikes	• Student-led warm-ups – using the guide from lesson 1 • Recap elbow strike (pupil led) • Knee strike progressions • Building student-designed combinations using speed punches, elbow strikes and knee strikes

3	Small group WOD. Introduction to kicks	• Student-led warm-up – use WU to recap key skills so far • Small group WODs (student input/design) • Kick technique development – front, back, roundhouse. • Pupil-designed practices of the above
4	Consolidation lesson – no new content.	• Student-led warm-up – recap key skills • Whole group WOD (completed in pairs) - 8 exercises (4xCrossFit focus, 4 x Kickboxing focus – pupil input here) – pupils adapt exercises intensity and duration for themselves – peer coaching in rest periods.
5	Pupil designed/led WOD Introduction to punches	• Student-led warm-up followed by small group-designed WOD • Introduction and student practice of jab, straight, uppercut, and hook – safety in using focus pads first! • Pupils design their sparring session to finish - combinations
6	Student Designed Lesson	• Students are provided with resources to plan their own lesson (under guidance from the teacher) • Must include – a warm-up, student-designed WOD that includes a mixture of CrossFit and kickboxing elements. • Students to share their goals (individual or group before starting). The teacher designs resources to scaffold/support.
7	Kickboxing combinations and sparring vs pads	• Warm-up and WOD – pupil-led • Focus on kickboxing elements to allow practice, combinations and movement. • Pupils work in 4's with clear roles (fighter, focus pads person, kick shield person and a coach) – rotate through roles, decide your own combinations, and work/rest periods.

Show us what you know
and enjoy

- In this lesson, pupils are tasked with “showing us what you know and enjoy” in small groups (3-6 pupils per group)
- The task was set at the end of the previous lesson to allow thinking and planning time.
- Combine your favourite elements of the unit in your own workouts/practices using CrossFit and kickboxing activities.

Table 3.4 provides a brief comparison of the two research sites that should be considered when interpreting the results of the study later in the thesis.

Table 3.4 – Research Sites Summary

Characteristic	Park School (Grammar School)	Cross School (Non-selective Academy)
Type of School	Grammar school with academy status	Non-selective academy
Location	Suburbs of a large town in South-West England	Suburbs of a small city in South-West England
Age Range (School)	11 to 18 years	11-18 years
Gender Mix (School)	Co-educational	Co-educational
Approximate Total Pupils	1200	1,500
Selectivity	Selective (uses 11+ exam system)	Non-selective
Intervention Class Year/Age	Year 8 (age 12-13 years)	Year 7 (age 11-12 years)
Intervention Class Size	23 pupils (12 boys, 15 girls)	27 pupils (12 boys, 15 girls)
SEN Pupils in Class	7 students with diagnosed SEN (dyslexia, ADHD)	9 students with diagnosed SEN (dyslexia, ADHD, mild autism)
Gatekeeper Teacher (GKT)	Robert (26 years old, 4 years teaching experience)	Poppy (24 years old, 2 years teaching experience)
Intervention Unit	Parkour	CrossFit/Kickboxing hybrid
Post-Unit Survey Return Rate	78.3% (18/23 pupils)	100% (27/27 pupils)

3.4 - Ethical Considerations

Within this educational research, ensuring that participants were treated as subjects rather than objects was imperative (Palaiologou, 2016). In this scenario, the power structures typically associated with research, where the researcher is seen as more influential and the participants less so, were rejected, so the researcher and the subjects (both teachers and pupils) worked collaboratively so both are architects of the research (Torre & Fine, 2006). This notion also aligns closely with the pragmatic philosophy and the action research approaches implemented where co-creation is embraced (Dick et al., 2015).

Several key areas of good ethical practice were implemented within the study aligned with the University of Gloucestershire (UOG) Research Ethics Handbook (University of Gloucestershire, 2021a) and the British Educational Research Association (BERA) Ethical Guidelines for Educational Research (BERA, 2019). The first of these is to gain voluntary informed consent from all participants involved in the study and, for those under 18 years old, the consent of their parents alongside this (Cohen et al., 2018; Menter et al., 2018). The voluntary informed consent was obtained in writing from all participants (see appendices C [pupils and parents] & D [schools, Head of PE, teachers]). When working within schools, the researcher followed the schools' guidelines for contacting parents using the teachers involved in the study as gatekeepers (Cohen et al., 2018). Informed consent was also obtained from the Head of PE as well as the Headteacher (or another appropriate senior leader) (see Appendix D). Gaining institutional support and clearance is seen as crucial when implementing research in school environments (Palaiologou, 2016).

Anonymity and confidentiality were both essential to protect the participants' identity and data within the research (Cohen et al., 2018). To ensure anonymity, participants were given a pseudonym (a fictitious name or number) within the final thesis; this applies to both individuals and schools. Alongside this, any highly distinguishing pieces of information have been redacted in the write-up. Data was managed appropriately to ensure safe storage, in line with the current General Data Protection Regulation (GDPR) (UK Parliament, 2018) and the UOG (2021b) Data Protection Policy. In line with this, participants were provided with a Research Privacy Notice (appendix E) as part of the informed consent process (UOG, 2021c). Based on the recommendations from Lynch (2010), the use of password-protected files on a password-protected laptop was utilised for any digital data, and a locked storage cabinet in a private office was used for any hard copies (for example, the pupil surveys).

Participants did have the right to withdraw from the study at any point during the research process. At that point, any data generated by that participant would have been permanently deleted/destroyed (BERA, 2019). No participants made this choice during the project.

In line with good practice for any action research project, the intervention and associated data collection (in this case, the units of work) were thoroughly risk-assessed to ensure they did not put any of the research participants at any undue risk (Appendix F). The units implemented in schools were co-constructed with teachers to ensure they meet the Association for Physical Education 2020 Safe Practice: in Physical Education, School Sport and Physical Activity Guidelines (Caldecott et al., 2020), as well as any localised health and safety policies.

The research involved working with and collecting data from individuals under 18 years of age, and therefore, ethical clearance was required from the UoG Research Ethics Committee (see Appendix G). Adhering to BERA (2019) and UOG (2021) guidelines helped ensure that the individuals involved in the research were appropriately protected from harm (both physical and psychological being most relevant in this project). Best practice guidelines for using children as research participants were also followed, including communication with children and gatekeepers (parents and teachers), monitoring enthusiasm (boredom or slow compliance could be signs they might like to withdraw), and ensuring the researcher remained neutral and non-judgemental throughout (Slepičková & Bartošová, 2014). More details on the researcher's positionality can be found in the Insider/Outsider findings chapter, where this is discussed in greater depth.

3.5 - Data Collection

The following sections outline the methods used to collect data throughout the intervention, whilst chapter 4 specifically details the development of the novel questionnaire used in the study.

3.5.1 – Questionnaire Procedure

To administer the questionnaire before the intervention delivery, the GKTs from each school were provided with packs to give each pupil that included several vital documents: a project information document for pupils and their parents (appendix H), an informed consent form (appendix C) to be completed by both parents and pupils, a Research Privacy Notice that

outlined how we would use their data in line with GDPR (Appendix E) and finally a copy of the questionnaire (appendix I) to complete should they provide consent. Each participant was provided with a return envelope for the documents that they were required to seal with the documents enclosed and return to their PE teacher, who would pass the sealed responses to the researcher. The researcher briefed the GKTs on the instructions so that they could relay these to their groups, and each envelope had a set of instructions printed on it to make the process as easy as possible for both pupils and parents. A key message that was highlighted in the briefing and instructions was that there were no correct answers and the need to be open and honest in the responses to maintain the validity of the data. This point was helped by sealing the envelope so only the researcher would see the responses, which helped to mitigate possible elements of social desirability in pupil answers (Bowling, 2005; Gray, 2022; Male, 2016; Morgan, 2014). Each school had a very good return rate (a testament to the commitment of the GKTs), with every pupil in the classes completing the initial questionnaire correctly. Data analysis will be discussed in subsequent sections of this chapter. However, initial analysis of the data helped to inform the design of the intervention units in consultation with the GKTs, with the researcher and GKTs working together as critical friends during the intervention design to ensure elements of the units were designed in line with the responses from the pupil questionnaire (Baskerville & Goldblatt, 2009; Feldman et al., 2018).

3.5.2 - Phase 2 – Data Collection During the Intervention

This phase of the study took place during the delivery of units in schools. It aimed to help meet the second research objective - evaluate the effectiveness of a LS intervention on the creation of potentially meaningful experiences for young people. During the delivery of the units, two methods of data collection were utilised. Informed by guidance from Menter et al. (2011) and Cohen et al. (2018), the first of these was a reflective diary/journal kept by the researcher completed after each lesson. The second was a lesson observation completed by the GKT during each lesson of the unit (Cohen et al., 2018). Aligned with the action research cycles outlined earlier, the data collection during the unit allowed the researcher and GKTs to assess the impact of the units as they were delivered and subsequently respond to the needs of the pupils' lesson-to-lesson.

3.5.2.1 - Reflective Diary

The use of reflective diaries within action research is well supported in the PE literature (Casey et al., 2018). In this instance, a structured research diary was kept, allowing reflection on each lesson that informed the future design of subsequent lessons as well as providing data for future analysis (Bryman et al., 2022; Menter et al., 2011). The diary allowed the researcher to critically reflect on the implementation of the units and views of the pupil responses to the delivery. Lewin (1946) identified evaluation and reflection as key components of action research that allow the researcher to analyse the impact of an intervention and think critically about the next steps for the intervention. To facilitate this critical reflection, Rolfe's (2001) reflective model was implemented to structure the reflections; this three-stage model fitted well with the pragmatic philosophy adopted within the project. The first stage is "What?" within this section of the reflections, the researcher sought to describe what happened within the lessons and details of any critical moments that require deeper evaluation. The second stage was "So What?" within this section, the researcher attempts to make sense of and analyse the experiences in the lesson; with the delivery centred on MPE, this often reflected on the features and pedagogies that played a significant role in that lesson. The final stage was "What Now?" Here, the researcher planned the following (or future) lessons, taking on board critical elements from the analysis in the first two sections. The reflections, whilst playing a significant role in the intervention development and implementation, also served as a rich data source that was analysed alongside the other data, particularly given the insider-outsider role played by the researcher, where I was both a teacher within the school (for the project) and a researcher and teacher educator (Savin-Baden & Major, 2013). An example of one of the reflective diary entries is included in the appendices (see Appendix J).

3.5.2.2 - Teacher Observations

The GKT teachers were asked to complete an observation of each lesson; as they were not directly involved in the lesson, this took the form of a non-participant observation (Cohen et al, 2018). To ensure the observations were aligned to the research, an observation proforma (see appendix K) was designed that aligned to the pedagogies and features of MPE but also allowed space for any additional comments that may fall outside of those categories but provide important information aligned to the research aims and objectives.

The GKTs were provided with 1-to-1 training to learn about the MPE approach, which included a professional discussion and presentation with the researcher, key readings (one

chapter and one journal article), and links to a video where key authors explain the approach (Beni et al., 2022). Additionally, they were provided with blank templates of the observation form to practice whilst watching a colleague in their own time, a method of good practice identified in the observation methods literature (Cohen et al., 2018; Savin-Baden & Major, 2013). This meant that by the time we came to the intervention observations, teachers were confident in both the teaching approaches and the structure of the observation form. This helped to ensure that the quality of the data collected via this method was valid, information-rich and reliable (Gray, 2022). During the observations, the teachers would position themselves on the periphery of the lessons, leaving the researcher responsible for the class. The pupils were also made aware of the GKT observation role so pupils would avoid disturbing them unnecessarily and for the GKT to maintain a degree of distance from the actual delivery, making the intervention delivery have close fidelity to real-world teaching.

Given the common practice of peer observation in schools (Burgess et al., 2021), it was anticipated that the presence of the observer (whom the pupils already knew) would have little impact on their behaviour, particularly given the length of the intervention where participants became desensitised to the observer presence (Larson, 2019). Whilst the validity of the observation alone could be questioned (with just one observer in one setting) by combining the observations with the researcher's reflections and subsequent information from pupils (see next section), a degree triangulation occurred that adds strength to the quality of the data (Cohen et al., 2018; Gray, 2022; Savin-Baden & Major, 2013). We should also acknowledge that with just one observer in each setting, the observations will likely have been heavily influenced by their values, beliefs, and experiences, a topic we will explore further in the post-intervention teacher interviews (Silverman, 2011). In total, five observations were completed at school one (parkour), this was due to the final lesson being a double lesson, and seven at school two (CrossFit/Kickboxing), meaning one lesson was not observed at this site due to teacher availability.

3.5.3 - Phase 3 – Data Collection Post Intervention

Data collected after the interventions had been delivered also helped to meet the second research objective when combined with data from phase 2 (see above). The data from this phase were also intended to inform the third research objective—to critically analyse the barriers and enablers to integrating LS within PE curricula. Three data sources and methods were used in this phase, which are detailed in the subsequent sections.

3.5.3.1 - Meaningful Physical Education Questionnaire Completion

After the intervention units had been completed in each school, pupils were provided with another copy of the MPE questionnaire (see chapter 4) and asked to answer the questions reflecting on their experiences within the intervention units only. Within school one, this was administered as a homework task; pupils then returned their responses in a sealed envelope to their PE teacher for the researcher to collect. 18 out of the 23 pupils returned the questionnaire within one week of the request (78.3% response rate). Further requests were made to gain information from the five pupils who did not return the questionnaire, and additional copies were also provided. However, after asking twice (via the GKT), it was deemed that their responses could become tokenistic (in completing the task) rather than valid and reliable (Gray, 2022). Upon discussion with the GKT, it was deemed that the non-responders were most likely due to a lack of organisation rather than a strong unwillingness or that they had found the unit a particularly negative experience. Leaning on the work of Fincham (2008) and Cohen et al. (2018), the sample that returned the questionnaires was deemed as representative of the class. In school two, learning from the experience above, the survey was completed during registration/form time (pupils were informed of this at the end of the final intervention lesson, so they had time to assimilate some thoughts), supervised by the researcher and GKT, meaning all 27 pupils completed the post-unit questionnaire, giving a response rate of 100% in this school and overall response rate of 90% across both schools, this is considered an excellent response rate for questionnaire research that was enhanced by the relationship with the researcher, the perceived value of the research amongst the pupils, and the methods chosen to administer the questionnaire (Cohen et al., 2018; Fincham, 2008).

3.5.3.2 - Pupil Focus Groups

It was vitally important that a greater depth of information was gathered from those at the centre of the research, the pupils. It was, therefore, necessary to sit down and talk to the pupils about their experiences of the units and PE in general. At the point of completion of the MPE questionnaire, pupils were offered the opportunity to participate in a focus group to discuss their experiences of the intervention unit and PE in general, echoing calls from the field for greater use of pupil voice within PE (Howley & O'Sullivan, 2021), and PE research (Enright & O'Sullivan, 2012). Extracting rich and honest data from children can be a barrier to effective research. The power balance in a one-on-one interview between an adult and a young person can often lead to difficulties in extracting detailed and truthful information,

particularly surrounding topics that may be deemed as personal or sensitive to the individual. Therefore, within the study, a focus group approach to data collection was more effective, where the dynamics are changed somewhat from an interview scenario. However, the opportunity remains to elicit a valuable depth of information from the participants (Connolly, 2016; Gibson, 2012). Within the timescale of the project, it also allowed the researcher to hear from a greater number of young people than through one-to-one interviews (Liamputtong, 2016).

A focus group is a form of qualitative research in which a relatively small group (between 2 and 10 in most cases) of individuals are asked or prompted to discuss their perceptions, opinions, beliefs, and attitudes towards a particular phenomenon (Kamberelis & Dimitriadis, 2013; Krueger & Casey, 2000). Focus groups have become an increasingly popular and established technique amongst researchers from many areas of social science, particularly in educational settings (Kai-Wen, 2014). Morgan (1997) suggests that a simple way to check that a focus group is a suitable method is to consider how comfortable the group will be discussing the topics being researched. The homogeneity of the groups being studied within the research provided a comfortable forum for discussion among participants. Also, it allowed ideas to be shared with different individuals to stimulate further discussion, adding to the richness of the data (Liamputtong, 2016).

Eighteen pupils took part in the focus groups from school one. This involved four separate focus groups, with three of the groups containing five pupils and one focus group containing three. These followed a semi-structured format guided by Appendix L, aligning with key topics of interest but allowing some freedom of expression. The focus groups here lasted between 19 and 29 minutes, with a mean length of 22 minutes and 48 seconds. In school two, three focus groups were conducted with 14 pupils in total, two groups with five pupils and one with four. Focus groups here lasted between 21 and 24 minutes with a mean length of 22 mins 16 seconds. It was essential to avoid overly lengthy focus groups, particularly given the age of the participants, to prevent fatigue and loss of concentration (Alder et al., 2019) and the constraints of a lunchtime time slot to conduct them. The size of the focus groups also aligned with recommendations from Alder et al. (2019), whose systematic review of 120 papers on focus groups with children noted many of the areas highlighted above and in subsequent sections.

To maximise the effectiveness of a focus group, there are several areas that the researcher took into consideration to extract the maximum amount of relevant data from the group (Alder et al., 2019; Liamputtong, 2016). These relate to the key areas below:

1. **Assembling the right group (sampling)**—The focus groups were made up of pupils who worked together in lessons, often their friendship groups, which helped them feel comfortable talking about their experiences. The focus groups varied in size from 3 to 6 pupils.
2. **Logistical considerations (venue/timing/recording)**—The focus groups took place in a comfortable and quiet school classroom. They were conducted at lunchtimes, allowing them to be accessible to all pupils and not detract from learning in other subjects. The focus groups were audio recorded on a digital Dictaphone (Homder Digital Voice Recorder).
3. **Creating a comfortable atmosphere within the group that promotes the sharing of ideas/opinions and interaction** - Furniture was arranged in a small group format so all pupils could see and hear each other and the researcher. Some snacks were also provided for the pupils.
4. **Providing a logical structure to the discussion that maintains a focus on the main topics** - A focus group guide (see Appendix L) was used to structure the discussion with key topics and possible questions. However, it also allowed some freedom for pupils to bring up topics that were important to them.
5. **Providing appropriate stimuli for discussion** - The researcher used various visual stimuli to help promote thinking and reflection amongst the pupils, including a compilation video from the final lesson of each unit, cards showing features of MPE, and a diagram of a scale showing PE/the units as harmful, meaningless, or meaningful. These visual stimuli often helped provide a starting point for discussion and got the group talking.
6. **Avoiding researcher influence** - The researcher made it clear to the pupils that there were no right answers to the questions/topics and that their true feelings were what we wanted to hear. No leading questions were used, and the researcher was sure to remain impartial and nonjudgmental through both his verbal and nonverbal communication when pupil responses were shared.

All the above were considered when implementing the focus groups. It was also important that the role of the researcher in a focus group was one of a moderator that actively

encourages dialogue with the researcher but, notably, between participants (Connolly, 2016). This helped to create a more natural group-talk environment that encouraged greater participation amongst the group. While doing this, it is also the role of the researcher to encourage contribution and keep the discussion on points of relevance to the topic. The researcher used techniques that promote interaction: phrases such as “That’s really interesting, what do other people think?”, “Could you tell us more about that?” and “How does that compare to other’s experience?” were particularly helpful. Phrases like these avoided presenting an opinion and maintained neutrality but aimed to stimulate further discussion within the group (Bloor, 2001; Cohen et al., 2011; Gronkjaer et al., 2011).

While attempting to maximise the benefits of focus groups by considering the points raised above, it is also essential to recognise some of the method's potential weaknesses and aim to minimise these. Table 3.6 summarises some of the main limitations and possible pitfalls when implementing focus group research (particularly with young people) and some strategies that were used to help address these.

Table 3.5 - Potential Limitations of Focus Groups

Limitation/Pitfall	Strategies used to minimise impact within the project
Findings are not generalisable due to small numbers in samples.	The sample size was in line with the project timescale and size. Implementing several focus groups in different schools aims to maximise the transferability that is available with this method. Generalisability was not the aim of the project, so this limitation is noted but not a significant concern.
Resource and time-expensive	By repeating focus groups across different settings, the preparation work for each was minimised, and the most significant cost was researcher time. Participants were reminded of the value of the research and the importance of their voices.
Often requires skilled moderation to elicit rich data that is on topic.	The researcher is skilled in working with young people given employment in secondary schools for over 10 years. The researcher has used focus groups with young people (as well as adults) in previous research. Couple this with some innovative and engaging stimuli within the groups (detailed above).
Lack of confidentiality and anonymity	Due to the homogeneity of the groups in terms of age, shared experiences, and established relationships within the groups, participants seemed to find discussing the topics with like-minded people less of an issue.

Issues with group dynamics	Pupils were grouped with friends to allow them to feel comfortable and confident. The homogeneity of the group and the fact that they were from the same school and year group assisted with this.
Monopolisation of time by individuals	The moderator judged early in the warm-up phase of the focus group and with knowledge of the pupils from teaching, which individuals were likely to monopolise time. When this did occur, the researcher shifted the topic or moved attention to another person. The researcher took note of quieter individuals to ensure they were offered chances to contribute.
Lack of control	This could be a benefit by allowing the emergence of ideas that may not have been considered. However, the moderator was aware when the conversation was going too far off-topic to be relevant and drew the conversation back to the point.
Group Think - conformity	The researcher did not pressure the group to come to a decisive conclusion, and all individual opinions were valuable; this was stressed at the beginning and throughout the data collection.
Contrived, unnatural settings can be intimidating.	This was minimised using settling activities/introductory questions pitched at a basic, non-threatening level so that those who were less confident were eased into the process. Familiar groups, settings, and venues also helped.
Difficult with sensitive topics	Whilst the topic may have been potentially sensitive, they were discussing it within a group where there is some common ground (e.g., they are from the same school and have experienced the same classes). Questions were phased in terms of depth, so members were eased into the discussions. (Adler, et al., 2019; Bloor, 2001; Dilshad & Latif, 2013; Fern, 2001; Gronkjaer et al., 2011; Krueger & Casey, 2000; Liamputtong, 2011; Woźniak, 2014)

3.5.3.3 Teacher Interviews

Each teacher was also interviewed after the intervention to provide feedback on their experiences whilst observing the unit and gain their perspectives on pupil responses to the intervention, as well as discuss broader topics around the purpose of PE and influences on curriculum design (an interview guide can be seen in appendix M). Utilising guidance from Arksey & Knight (2009) and Lin (2016), the interviews followed a semi-structured format to allow the topics to be centred on the research aims but also explore issues that the researcher may not have considered in their initial question design. Interviews took place on the school

site at the end of a school day (to create a calmer atmosphere) in a private and quiet classroom to allow quality data to be collected in a comfortable and relaxed setting (Cohen et al., 2018). The interviews were recorded using the same device as the focus groups. The interviews lasted 39 minutes (Poppy, school one) and 42 minutes (Robert, school two), both extracting a similar amount of data from the teachers.

Key interview techniques that helped to elicit greater quality and depth of responses were utilised based on the work of Siedman (2006) and Arksey and Knight (1999), both seen as seminal works in qualitative interviews. More recent guidance was also sought from Knott et al. (2022), who demonstrated that much of the guidance in earlier works is still relevant today. The interviews adopted a 3-part structure, one of Seidman's (2006) hallmark suggestions (p. 20) focusing respectively on (a) the life history of the participant, (b) the details of the experience(s) of interest, and (c) reflections of the meaning of experience(s). This informed the design of the interview guide (Appendix M). Perhaps most important in the interviews were the techniques that were implemented to elicit rich data. Some of the key techniques are outlined below based on a combination of the works cited above:

1. **Listen more, talk less** – the interviewer concentrated on the details within responses to make sure that they were understood and to assess whether what they heard was as detailed and complete as needed. The interviewer also needed to listen to the inner voice (Steiner, 1978); the inner voice is what is actually meant by the more guarded outer voice, which often requires reading between the lines. Finally, the interviewer listened carefully to assess the progress of the interview and stay aware of cues about how to move the interview forward.
2. **Follow up on what the participant says** - The key to asking good questions during the interviews is to let them flow, as much as possible, from what the participant is saying. Although the interviewer came with an interview guide that established the focus of the interviews, it was in response to what the participant said that the interviewer followed up by, for example, asking further questions for clarification, seeking concrete details, and requesting stories or examples. This gave greater depth to the information gathered and allowed more fluency than just being heavily wedded to the interview guide.
3. **Limiting your own interaction** – the researcher avoided distorting the interview by sharing too much of his own experience. This was particularly important as both teachers were younger and less experienced than the researcher. Whilst the

connections with the participants had been developed throughout the interventions, meaning a more relaxed and equal relationship had been developed, the researcher needed to limit the likelihood of social desirability creeping into responses. Therefore, the interviewer attempted to remain neutral throughout the interviews by, for example, not reinforcing or validating the responses of the participants and not passing judgment on any of their responses.

3.6 - Data Analysis

This section considers the analysis of data from all phases of the study and outlines how each data set was analysed to help inform the study findings.

3.6.1 - Data Analysis Procedures

The analysis of the data gathered was split into two clear approaches, which were dependent on the nature of the data. Quantitative data from the MPE questionnaire (pre- and post-intervention) was analysed using descriptive and inferential statistics (Greasly, 2008). The qualitative data from the other sources (questionnaire [3 questions], lesson observations, teacher researcher-reflections, focus groups with pupils, and interviews with teachers) was analysed using thematic analysis (Braun & Clarke, 2022). Further details on these two approaches are outlined below.

3.6.2– Quantitative Analysis

Analysis of the quantitative data from the MPE questionnaire was split into clear stages to help manage the data and maintain order and integrity in the analysis (Jensen, 2022). Stage one involved checking all the responses in the paper questionnaire to ensure they had been completed correctly, that all questions had been answered, and that responses were legible. All questionnaires that were returned had been completed correctly, perhaps a testament to the design and implementation process outlined earlier. Stage two involved transferring the data into Microsoft Excel and beginning to organise the data into manageable and meaningful formats (Jensen, 2022). The questionnaire linked to MPE features, MPE pedagogies, and overall meaning; therefore, the data was set out to group these elements. For example, the three questions related to the feature of “challenge” were grouped together. The Likert scale data was then transferred into a numerical ordered format (strongly disagree – 1, disagree – 2,

neutral – 3, agree – 4, strongly agree – 5) (Boone & Boone, 2012; Likert, 1932). This allowed each feature/pedagogy/overall meaning to aggregate a total score (out of 15) for each participant (for both pre-and post-unit completion). The screenshot in Figure 3.2 shows this for the key feature of choice as an example for the reader.

Figure 3.2 – Example of Survey Data Management/Presentation

	A	B	D	E	F	G	H	I	J	K	L
	Participant	gender	Pre-Social Q1	Q6	Q9	Total Social Pre	Post-social Q1	Q6	Q9	Total Social Post	
	1	M	4	4	3	11	5	4	4	13	
	2	M	4	4	4	12					
	3	F	5	3	4	12	5	5	4	14	
	4	F	5	5	4	14	5	4	4	13	
	5	M	5	5	4	14	5	5	4	14	
	6	F	4	4	4	12	5	4	4	13	
	7	M	4	4	4	12					
	8	F	5	4	5	14	5	5	5	15	
	9	M	4	5	5	14	4	5	4	13	

A key point to note in the analysis of the questionnaire data is that the Likert scale data is categorised as non-parametric and ordinal (Sullivan & Artino, 2013). In an ordinal scale, responses can be rated or ranked, but the distance between responses is not measurable. Thus, the differences between “agree,” “neutral,” and “disagree” on a frequency response Likert scale are not necessarily equal. In other words, we cannot assume that the difference between responses is equidistant even though the numbers assigned to those responses are. This becomes important when we choose which statistical tests to use.

The next stage involved aggregating the scores across the sample for each feature, pedagogy, and overall meaning (for both pre- and post-data). To do this, the nature of the data, being non-parametric and ordinal, meant that we use the median as a measure of central tendency (Derrick & White, 2017; Gob et al., 2007). This allowed the calculation of a pre- and post-median score for each feature, pedagogy and overall meaning that could be used to compare any differences between the two questionnaire completions (i.e. normal PE vs the intervention units).

When comparing two independent sets of responses from a Likert scale question set, the independent samples t-test is typically performed (Pallant, 2020). The corresponding non-

parametric test for independent samples is the Wilcoxon test (Wilcoxon, 1945). Before the test could be performed, the data for pre and post for each feature, pedagogy and overall meaning was transferred into the SPSS statistics package (Pallant, 2020). The process for running the Wilcoxon test (Wilcoxon, 1945) was followed using the guidance from Pallant (2020, p. 241). This process was repeated for each feature, pedagogy and overall meaning question groups. This analysis process was completed for the overall data set from both schools/units as well as for each unit individually to allow comparison between the two different sites/activities.

Data derived from the questionnaire will be presented in the results and discussion chapters using a range of traditional formats for quantitative data, including tables and graphs, which will facilitate interpretation and contribute to meeting the relevant research objectives.

3.6.3 Qualitative Analysis

The qualitative data from the questionnaire (3 questions), lesson observations, teacher researcher-reflections, focus groups with pupils, and interviews with teachers were analysed using a hybrid of inductive and deductive thematic analysis (Braun & Clarke, 2022). The choice to combine inductive and deductive analysis was rooted in the work of Proudfoot (2022, p. 309), who acknowledged the potential for “the combined use of inductive and deductive approaches to the same qualitative data in a hybrid approach to thematic analysis, arguing for the greater rigour such mutual reinforcement could offer”. The approach, therefore, seeks to offer the advantages of a deductive approach, being theory or framework-driven (in this study using the features and pedagogies of MPE as a framework), as well as the creative and intuitive advantages of an inductive approach where the data drives the theme development. Crucially, these themes were then hybridised or combined to enhance one another mutually (Hatta et al., 2020). This combination approach also aligns well with the pragmatic research philosophy and the abductive stance adopted in this study, seeking to answer problems with a “what works best?” approach rather than misguided alignment to one way of working (Timmermans & Tavory, 2012).

The data from the various sources was first organised into ordered and manageable formats (Cohen et al., 2018). The written data in the form of questionnaire responses to the three qualitative questions were transferred into Microsoft Excel for both the pre- and post-unit versions. The data from the observations was also treated in this way to create a safe and permanent record of the original written accounts. In this case, word-for-word copies were

transcribed during the process to maintain the integrity of the data (Atkinson, 2012). The reflections written by the researcher, along with unit plans and lesson plans/resources, were all created on Microsoft Word and so remained there as data sources in their original format.

The recordings from the focus groups and teacher interviews were sent to a professional transcription company to be more time efficient given the volume of data generated, the project timeline and the external responsibilities of the researcher (full-time work, caring responsibilities). The company had been checked for GDPR compliance and ethical handling of data (Hennessy et al., 2022). The highest level of transcription was sourced where the data is transcribed as full/strict verbatim or “true verbatim”. This involves transcribing the audio content word-for-word, including every utterance, filler words, false starts, stutters, laughter and background noises. Essentially, it captures the spoken content in its entirety without any omissions or alterations, maintaining complete accuracy of the data. Following this, the data from all the qualitative sources was subjected to a six-stage thematic analysis process outlined by Braun & Clarke (2022) that will be discussed further below.

Stage 1 – Familiarisation – for the data originally in written format, this involved reading and re-reading the data to become immersed and intimately familiar with the content. Some note-taking also took place in this stage to signpost/highlight items that were considered interesting or could be raised in discussions with the supervisory team. The audio data (focus groups and interviews) was listened to repeatedly. This took place in several settings, firstly on what the researcher called “immersion walks/rides”, where the researcher was walking the dog or riding a bike (static indoors), and during the checking of transcripts whilst listening to the audio recordings to make any adjustments. Time stamps were noted where useful points (linked to the research objectives) or interesting quotes were located. The repeated listening/reading of these data points meant the researcher developed an intimate knowledge of the data. Much of the familiarisation also took place during the data organisation.

Stage 2 – Coding – This stage involved generating initial labels or codes that identified important features of the data that could be relevant in answering the research questions/aims. Codes were primarily driven by the data itself but also aligned with key concepts that underpin the research, such as MPE, SDT, and physical literacy. There was also a considerable amount of similarity in the codes generated across the different data points, given the relationships between the sources and the topics explored; this was not surprising and helped with the later triangulation of data from different sources (Nowell et al., 2017). This stage was completed using Microsoft Excel to create drop-down menus for codes next to

the original text. It was noted at this stage that some comments/data could align with more than one code, so this function was built into the spreadsheet so that multiple codes could be used simultaneously. The spreadsheets could then be sorted by codes which made the datasets more manageable in the subsequent stages of analysis and writing up (Bree & Gallagher, 2016).

Stage 3 – Generating initial themes – This stage involved taking the codes that had been generated in stage 2 and refining them (for example, by combining codes that had been repeated, e.g. competitive and competition were combined under one heading, as were autonomy and choice). Following the refinement of the codes, groups of similar or overlapping codes were grouped to create relevant themes. Some of these themes were aligned with MPE (in a deductive manner), whilst others were drawn from the data (in an inductive manner) because they helped to answer the research questions/aims and were deemed significant.

Stage 4 – Reviewing themes – after leaving the data alone for a few days, the initial themes were revisited and checked against the data sources to ascertain if they told a truthful and accurate story representing the data but also, importantly, highlighted where they helped to meet the research aims/questions. Within this stage, some themes were renamed, some were combined, and others were discarded. It was felt important in this stage not to be overly wedded to the original themes but to take a critical lens to these. Using guidance from Maguire & Delahunt (2017), key questions were asked about the themes: Do the themes make sense? Does the data support the themes? Am I trying to fit too much into a theme? If themes overlap, are they separate themes? Are there themes within themes (subthemes)? Are there other themes within the data? This rigorous process allowed confidence that the development of the themes had been a diligent and thorough process and that the researcher was staying true to the data.

Stage 5 - Defining and naming the themes - After reviewing the data within each theme once more to determine its scope and focus and the story it tells, a name for each theme was created that provided a clear link to its contents. While some of these themes linked to existing frameworks, others were created by the researcher as they best suited the dataset they represented.

Stage 6 - Writing up - The final stage of the analysis is included in the results and discussion chapter that follows. This chapter aims to explain, explore, critically analyse, and evaluate the data, considering previous research and the project aims.

Chapter Four – Development of the Meaningful Physical Education Questionnaire

This chapter describes the development and testing of the MPE Questionnaire, a novel tool designed explicitly for this study.

4.1- Questionnaire Design

To accurately assess the efficacy of the intervention units, the researcher needed to establish a baseline measure of pupils' views and experiences of PE to allow for a comparison with the data collected about the unit itself (aligned with research objective 1 - critically analyse the views of pupils as to what extent current PE provides elements of meaningful experiences). Consideration was given to pre-existing tools that provided insight into pupils' experiences in PE, such as Physical Education Autonomy, Relatedness, Competence Scale (PE-ARCS) (Sulz et al., 2016) and Situational Motivation Scale (SIMS) (Guay et al., 2000). Whilst utilising validated tools comes with several advantages: saving time and effort, being sure the tools measure the right concepts of interest, and often having pre-set analysis processes (Cohen et al., 2011; Hyman, 2006), it was felt the existing tools did not fully align with the MPE approach that was central to this research. It was therefore necessary to design a questionnaire that fully aligned with the features and pedagogies of MPE outlined in earlier chapters. Whilst learning from the designs of other questionnaires, such as PE-ARCS, SIMS and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) (a tool the researcher had used in a previous project with youth participants), and utilising relevant principles of effective questionnaire design (see table 4.1) highlighted in seminal texts on the topic (Gray, 2022; Krosnick, 2018; Male, 2016; Thomas, 2023) a novel questionnaire for assessing the features, pedagogies and overall meaning of PE was developed.

Table 4.1 - Effective Questionnaire Design Principles and Application (Gray, 2022; Krosnick, 2018; Male, 2016; Thomas, 2023)

Design Principle	Explanation/Implementation
Avoid prejudicial language	Avoided language that may be received as sexist, ableist, racist, plays to stereotypes, etc.
Age/developmentally appropriate	The language used in the questionnaire design was deemed fit for the intended audience's age/developmental stage. This limits the chance of questions being misunderstood. The length of the questionnaire was also considered (e.g. a young child may not complete a very long questionnaire accurately) to avoid user fatigue.
Appropriate scales	Scales with between 5 and 7 options tend to have the highest reliability scores. They should offer roughly equal distance between options (e.g., <i>agree, neutral, disagree</i> rather than <i>agree, disagree, strongly disagree</i>). The questionnaire had a 5-point Likert scale using equal spacing.
No opinion filters	The scale offered an option of a neutral or no opinion, so respondents were not forced to provide false positives or negatives.
Avoid bias and improve clarity	Questions that are leading or make assumptions were avoided. The language offered precision and avoided ambiguity (e.g. the term regularly could be interpreted differently by various individuals)
Use more than one question to measure a given construct	To increase reliability, more than one question was used to measure the same construct/feature (e.g. three questions were constructed linked to motor competence)
Balance question types appropriately	The design carefully considered the different types of questions (e.g. open or closed, rank or scale), so the questionnaire predominantly used scale questions with three open-response questions.
Layout and design	The design and layout of the questionnaire was clear and user-friendly, considering font type, font size, spacing, the use of boxes to aid clarity and providing lines for written answers.
Piloting and/or expert checking	It is helpful to test a questionnaire for usability with a similar group to your target audience to gain feedback on usability. If possible, using subject experts to check the questionnaire and provide feedback is also considered best practice. Both were done with the questionnaire (more details below).
Reliability checking	A questionnaire should elicit similar responses on any given day (day-to-day reliability). When piloting, it can be helpful to have the same group complete the questionnaire with a small gap (2-5 days) between completions. The similarity of their answers can then be compared. Again, this was performed with the questionnaire (more details below).

Taking the points from Table 4.1 into consideration, a questionnaire was designed to align with the key features and pedagogies of MPE. The questionnaire used a 5-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree) for pupils to rate their agreement with statements connected to their experiences in PE. Each statement was attached to a

feature or pedagogy of MPE, with three questions then connected to overall meaning. Each feature had three questions that were explicitly associated with it to increase reliability, meaning a total of 26 quantitative questions (1 question covered both a feature and a pedagogy [choice]). See table 4.2 to view the mapping of concepts within the questionnaire. The questionnaire also contained three qualitative questions; the first asked pupils to identify (and explain if desired) any additional features that may help them find PE meaningful that had not been mentioned in the first question set. The final two qualitative questions asked students to complete two sentences – “*I like PE best when...*”. and – “*The one thing I would change about PE is...*”. It was anticipated that these questions would offer additional insight into what makes PE meaningful/meaningless for the pupils. A copy of the questionnaire is available in Appendix I.

Table 4.2 Concept Mapping in the Meaningful Physical Education Questionnaire

MPE Concept	Questions Relating to the Concept
Social	1) I have good opportunities to interact with others in my PE lessons 6) I enjoy interacting with others during PE lessons 9) I feel safe with people around me in PE
Competence	2) PE allows me to demonstrate what I am good at 5) I feel like I am good at some aspects of PE 7) I can see myself getting better at activities during PE
Fun	3) I regularly have fun in my PE lessons 8) I regularly get excited about coming to PE lessons 15) PE is a very enjoyable subject
Competition	4) I like being competitive with others in my PE lessons 12) I like comparing myself to others in PE lessons 19) I like being competitive with myself in PE lessons (e.g., beating a personal best)
Challenge	10) PE challenges me to try my best at activities 16) I find most of the activities in my PE lessons achievable when I try hard. 17) I can adapt activities in PE myself to set a good level of challenge
Choice	13) I feel I have some elements of choice over competition in PE (e.g. level of competition, whether to compete or not) 22) I feel I have some choices over aspects of my learning in PE (e.g., design of practices/games, who I work with)

23) I feel I have some influence on how my PE experiences are designed and delivered (e.g., what the curriculum looks like, opportunities to offer feedback to teachers)

Personal Relevance	11) I can make connections between what I do in PE and my life outside school 14) I like to do some of the activities in PE in my own time 18) I can see where what I learn in PE could fit into my everyday life
Overall meaning	25) My experiences in PE are memorable for positive reasons. 26) I see taking part in PE as something that is important, significant and worthwhile. 27) PE makes me motivated to be physically active in my own time
MPE Pedagogies	20) My teachers provide opportunities for me to set my own goals in PE 21) My teachers stimulate me to reflect on my experiences in PE 23) I feel I have some influence on how my PE experiences are designed and delivered (e.g., what the curriculum looks like, opportunities to offer feedback to teachers)

Once the questionnaire had been drafted and shared with the supervisory team for initial review, it was presented to academics and teachers who were considered experts in MPE¹ to check for content validity. This was through an international community of practice group that the researcher was a part of. The group consists of 16 individuals (including the researcher) who have been working with MPE in research, practice, or both, and includes the originators of the approach, Tim Fletcher and Déirdre Ní Chróinín. The experts here were asked to indicate whether they felt each question was appropriate and comprehensible and provide any necessary general feedback about each question. After receiving feedback in an online meeting, the group were offered the opportunity to add further comments to an online copy of the questionnaire, which several members did. Due to the feedback received, some minor edits were made to the wording and order of some questions (to better align with MPE features/pedagogies). The pupil instructions and the formatting were slightly amended to improve clarity and usability. On recommendation from Fletcher and Ní Chróinín, I then contacted Stephanie Beni, the author of the original review of literature in 2017 and several subsequent papers centred on MPE, who, alongside Alex Beckey (contributing author to the

¹ All named parties agreed to be mentioned in the thesis.

MPE book – see Fletcher et al., 2021) were able to review an updated version of the questionnaire and check the questions had good alignment with the features and pedagogies of MPE. Once again, a second round of edits was made, and the final version of the questionnaire was shared with the review groups, all of whom commented positively on both the design and the need for such a tool (personal communication, 2022). Table 4.3 documents the key changes made at each stage of review.

Table 4.3 Meaningful Physical Education Questionnaire Development Stages

Development Stage	Description of Changes After Stage
Stage 1	The initial design was made by the researcher independently, aligning questions to key MPE features. One section of the questionnaire was dedicated to each feature, with three questions per feature.
Stage 2	Review by supervisory team – edits made to questions to enhance readability, including language choice and sentence structure. Three questions were also added, linked to MPE pedagogies (goal setting, reflection, democratic approaches)
Stage 3	Initial presentation to the MPE International Community of Practice. Added as a subsection on competition as a key element of challenge, and also a contentious issue in PE. It was also decided not to label each section with the feature/concept and instead mix up the order of the questions to help with inter-item reliability testing - i.e. pupils will be less tempted to put all answers in one section as the same rating merely because of the heading.
Stage 4	Presentation to Stephanie and Alex. Added questions linked to the overall meaning (x3) and an additional qualitative question, allowing pupils to highlight any other key features that make PE meaningful to them, so the established features do not constrain them.
Stage 5	Final review with the supervisory team, providing a rationale for all edits thus far and sense checking the researchers' changes. Some minor formatting edits were made to provide pupils with sufficient space for written answers and ensure clarity in layout. An option of “I don’t understand this question” was also added to each question – this was seen as an important option to avoid false positive/negative answers.
Stage 6	Reliability testing and Piloting – see section 4.2. No additional changes were made at this stage – the questionnaire was deemed usable and reliable.

4.2 - Survey Reliability Testing and Piloting

The questionnaire was then checked for readability using Microsoft Word's built-in checking system. The Flesch Reading Ease score was 55.0, and the Flesch-Kincaid Grade Level Test returned a score of 8.6, demonstrating that the questionnaire was considered easy to read for an average 13-15-year-old. However, since the document was not a continuous piece of prose, the software's accuracy is not overly precise. Therefore, it was essential to pilot-test the questionnaire with young people for comprehensibility; this would allow me to identify whether pupils in the target demographic felt questions were comprehensible (easy to understand) and any specific words or phrases that were difficult to understand (Gray, 2022). Before pilot testing, an additional column was added to the response block that allowed pupils to identify any questions they did not understand and provide an extra layer of checking. A school in the local area (not involved with the intervention delivery) was contacted to see if they would provide a group to test the questionnaire. Approval was granted by the Head of PE at the school to use a year 9 tutor group (n=24 pupils, aged 13-14 years), reading ages spanning 8.4-16.3 years. The pupils were tasked with completing the questionnaire during form/registration time, whilst sitting at individual desks in silence. They could ask the form tutor (Head of PE) or the researcher, if they needed any help. Pupils were provided with some brief instructions from the researcher before completing the survey. As this was a pilot test – no names or identifying data were collected. All pupils completed the questionnaire successfully within a time frame of 6-13 minutes; those who took the longest had written longer answers to the qualitative questions. Upon completion, the researcher spoke to small groups and individuals to see how they found the process, and positive comments were received about the ease of completion. The researcher then reviewed each questionnaire to check for accuracy, and all questionnaires were completed with 100% accuracy. At this stage, the questionnaire was deemed usable by the target audience.

To be confident in the findings from the questionnaire, it was necessary for it to be reliability tested. Reliability is concerned with the consistency of our measurement. This is the degree to which the questions elicit the same responses each time we use them under the same conditions (Black, 1993; Gray, 2022). The extent of this consistency of responses is measured by a reliability coefficient using a scale from 0.00 (very unreliable; answers do not match when the tool is used repeatedly) to 1.00 (perfect reliability, meaning answers match precisely). The most common method to calculate this coefficient is using Cronbach's Alpha, which presents the average of all possible split-half correlations and, therefore, measures the consistency of responses both globally and individually (Park, 2021). Tavakol and Dennick

(2011) further support the use of Cronbach's Alpha in questionnaire-based methods to increase the quality and rigour of the tools used and subsequent conclusions drawn from them. According to Salkind (2015), reliability results from Cronbach's Alpha can be interpreted as follows: 0.9> excellent, 0.8-0.9 good, 0.7-0.8 acceptable, 0.6-0.7 questionable, and 0.5-0.6 poor. Therefore, for the questionnaire to be usable in the research, the Cronbach Alpha score would need to be 0.7 or above.

To assess the day-to-day reliability of the questionnaire, a group of 10 pupils (aged 11-15 years, mean 12.7 years) were recruited from 3 different local schools (not involved in the study itself) to complete the questionnaire twice with a 5–7-day gap between each completion (Aldridge et al., 2017). This would provide a large enough time gap to mitigate the possibility of remembering answers, but short enough that their opinions will very likely remain stable. After completion, the answers were inputted into the IBM SPSS 28 package to calculate reliability scores, which can be seen in Table 3.5 below. The key metric here is the Weighted Kappa, which provides an overall reliability score of 0.844, which categorised the questionnaire as “good”. This demonstrated that the questionnaire was now both usable by the target population and had good day-to-day reliability that provided a degree of confidence in any findings that were drawn from its use.

Table 4.4 – Questionnaire Reliability Results

Ratings	Cohen's Weighted Kappa					95% Asymptotic Confidence Interval	
	Weighted Kappa ^a	Std. Error ^b	Asymptotic z ^c	Sig.		Lower Bound	Upper Bound
Test_one - Test_two	.844	.026	18.811	.000		.794	.895

a. The estimation of the weighted kappa uses linear weights.

b. Value does not depend on either null or alternative hypotheses.

c. Estimates the asymptotic standard error assuming the null hypothesis that weighted kappa is zero.

To check the inter-question reliability of each feature, pedagogy, and overall meaning, a Cronbach Alpha test was performed on both the pre-intervention and post-intervention data sets (Collins, 2007). The Cronbach Alpha test checks that the questions are measuring the same construct and checks for internal consistency. Cronbach's alpha is a way of assessing reliability by comparing the amount of shared variance, or covariance, among the items making up an instrument to the amount of overall variance (DeVillis, 2012). If the instrument is reliable, there should be a great deal of covariance among the items relative to the variance without one variable unduly affecting the overall score. A Cronbach's Alpha of >.70 is

acceptable, >.80 is good, and >.90 is excellent (Salkind, 2015). When a scale has fewer than 10 items (like this one), the reliability score can sometimes be lower (as low as 0.50 can still be considered acceptable) (Pallant, 2020). Table 4.5 shows the results for both pre-and post-unit completion; the inter-question reliability of the instrument is considered very good throughout. This provides a high degree of confidence in the analysis.

Table 4.5 - Inter-Question Reliability Cronbach's Alpha Results

Feature	Pre Cronbach-Alpha	Post Cronbach-Alpha
Social	.75	.688
Competence	.659	.642
Fun	.823	.881
Competition	.838	.739
Challenge	.678	.676
Choice	.633	.831
Personal Relevance	.771	.667
Overall Meaning	.72	.788
MPE Pedagogy	.69	.709

In summary, this chapter has outlined the systematic development of the Meaningful Physical Education Questionnaire, a bespoke tool designed to capture pupils' perceptions of the features, pedagogies, and overall meaning of PE in alignment with the MPE approach. Drawing on principles of effective questionnaire design and learning from existing, validated tools, I have created a questionnaire that directly responds to the specific needs and conceptual framework of the study. The development process was iterative and collaborative, involving expert reviews from leading figures in MPE and the supervisory team, as well as refinement through pilot testing with the target demographic. The final version of the questionnaire reflected both academic rigour and practical usability, and was shown to be accessible, age-appropriate, and capable of generating reliable and meaningful data. This tool provided a foundation for exploring the extent to which PE experiences were perceived as meaningful by pupils and offered a valuable means for assessing the impact of the intervention units introduced later in the study. Chapter three highlighted the analysis of the

survey data. Within chapters six and seven, you will find results from the questionnaire that further speak to the usefulness of the data that is derived from the tool.

Chapter Five - Results and Findings Introduction

This chapter presents the headline findings from the overall project and sets the scene for the subsequent discussion chapters that follow. Before sharing the headline findings, it is important to note how the data analysis processes were combined, mainly quantitative and qualitative elements, to present the overall findings. Given the MM design of this study, the integration of these data strands was a critical process in identifying key themes and interpreting the results in a meaningful way.

5.1 Integration of Data Sources

Integrating findings from both qualitative and quantitative strands is widely recognised as a key challenge in MM research (Bryman et al., 2022). As detailed in the methods chapter (see Section 3.2), this study adopted a qualitatively driven MM design, with the quantitative component serving a supportive role by providing a broader perspective through its larger sample size (Creswell et al., 2018). The qualitative data offered depth and nuance, enriching the interpretation of the quantitative results by contextualising statistical patterns and highlighting individual and group experiences. It is important to keep in mind that the prioritisation of qualitative data over quantitative data was a deliberate methodological decision, and this weighting was a central consideration in the design and analysis of the study (see Section 3.2).

The multi-phase approach to data collection—comprising pre-unit, during-unit, and post-unit phases—allowed for a dynamic interplay between qualitative and quantitative insights. Quantitative data, collected pre- and post-intervention, provided an overview of changes in key variables, while qualitative data, gathered throughout, captured participants' lived experiences and reflections, enriching the interpretation of statistical findings.

The process of integrating these data sources was particularly significant in the creation of themes that structure the subsequent chapters. While statistical patterns helped identify broader trends, qualitative insights were instrumental in explaining why these patterns emerged, offering a more holistic understanding of the barriers and enablers to implementing LS in PE (Mitchell, 2018). This synthesis of data forms the basis of the key findings presented in the following sections.

Table 5.1 outlines the key themes along with their sub-themes, which provide a short overview of the key findings. These are then related to the research objectives and key data sources.

Table 5.1 - Overarching Themes and Sub-themes

Overarching theme	Sub-Themes	Links to Research Objectives/Data Sources
Meaningful Physical Education	Current experiences in physical education	RO1 – The majority of pupils found current experiences in PE to be meaningful. However, 32% of pupils identified PE as either neutral or negative in terms of it being positively memorable. 26% of pupils were either neutral or negative about PE, which motivated them to engage in further PA. See Table 6.1.
	The key features – a shared language	RO1—The existing key features of MPE resonated with the pupils, and data from all sources highlighted this. Social interaction was particularly important to pupils in both settings. Support was found for novelty as a potential new feature of MPE. RO2 – The effectiveness of the LS interventions were frequently compared to features of MPE by pupils, GKTs and the teacher-researcher. By using the features as a priority filter for decision-making, the impact of the interventions was enhanced.
	Meaningful Pedagogy	RO1 – Pupils' perceptions of PE were enhanced when teachers implemented pedagogies aligned with MPE (democratic approaches, goal setting and reflection). RO2 – Pupils placed particular value on elements of democratic pedagogies (choice). This was particularly impactful around pupil groupings, the level of challenge, and the ability to have input in task design.
Potential for Lifestyle Sports	Something Different	RO2 – The novelty of new activities was a particular strength of the interventions in the eyes of the pupils (focus group and questionnaire data). Within the parkour intervention, statistically significant findings were found across six elements of MPE (see Figure 6.2 and Table 6.3). Within the kickboxing/CrossFit intervention, positives were explicitly reported for females within the group (see Table 7.2).
	Moving away from competition	RO2 – The non-competitive nature of LS sports offered a different environment to the activities that traditionally dominate the school's curricula. This led to greater feelings of competence and allowed pupils to control the level of challenge (see section 7.2.1). Data from GKTs and pupils supported this. Where competition was included, it was instigated via pupil choice rather than forced by the teacher. This allowed those who thrive in competitive environments to include elements of this. The lack of

		competition and moving away from traditional sports was an issue for some pupils, with a few pupils having negative or neutral views (see section 7.4).
	Blending the activity with the approach	RO2 – Whilst the activities themselves were generally well received, the pedagogies associated with the intervention enhanced this (see sections 6.6 and 7.5). However, implementing meaningful pedagogy was not always straightforward, with tensions between teacher control and pupil autonomy and transitions in approaches (see section 6.8)
Curriculum Change	The need for change	RO1,2 & 3—All data sets recognised a need for change, and LS was seen as a viable alternative, which is one example of what this could look like. Whilst PE was effective for many pupils, changes in curriculum design and pedagogy could enhance this for more/all pupils. The success of the interventions showed a potential avenue for change that encouraged reflection by the GKTs (see Chapter 8).
	How might we change?	RO3 - The process of change was seen as complex, and while teachers acknowledged the need for change in their interviews, they were much less clear on how this could be implemented. Kotter's change model is utilised throughout Chapter 8 to demonstrate how this framework could support teachers in making change happen.
	Barriers and enablers to change	RO3 – The barriers and enablers to change are aligned with the work on practice architectures (see section 8.2) and mainly drawn from information in the GKT interviews and researcher reflections. Change is either facilitated or stagnated due to a range of overlapping issues related to departmental ethos and cultural discursive practices, social-political influences, teacher competence and material economic constraints.
Being a Teacher-Researcher	Being accepted	Whilst not in the original research objectives, this section highlights the importance of my unique role as a teacher-researcher and the insights I gained from this role, primarily gained from reflections both during and after the interventions.
	The value of relationships	Section 9.1 discusses being accepted as an insider-outsider and the interplay between being an expert from the university and walking the talk in the PE classes (see section 9.3). Key to managing this dual role was the development of relationships with both teachers and pupils (section 9.2). Finally, encouraging others was seen as a vital element of the teacher-researcher role, hopefully leaving a legacy and some advice in this area for those who might be keen to initiate their own projects (see section 9.4).
	Encouraging others	

5.2 The Discussion Chapters

The following chapters present the culmination of insights and analyses from a comprehensive study investigating the implementation of LS within secondary school PE through an MPE approach. These chapters synthesise the perspectives and outcomes of the intervention units centred around parkour and kickboxing/CrossFit. Data from both qualitative and quantitative sources is used in an integrated manner within the discussion chapters, acknowledging the strengths of utilising MM approaches to build a more comprehensive picture of reality (Anguera et al., 2012; Creswell & Creswell, 2018). Leaning on the seminal work of Jick (1979), rather than treating qualitative and quantitative data as distinct and sequential sources of evidence, this study presents them in an interwoven manner to construct a cohesive narrative of the research findings. This approach reflects the reality that experiences and outcomes in MM research are not neatly divided into discrete categories of numbers and narratives but are instead interdependent, with qualitative insights providing depth to quantitative patterns and vice versa. This also reflects the positioning of the study, which is grounded in pragmatism and the use of abductive reasoning, which aligns with this interwoven approach. By presenting the data together, I aim to reveal the layered and dynamic nature of pupils' experiences, showcasing how different forms of evidence interact to explain pupils' views on normal PE and the impact of the LS interventions.

The primary objective of the following chapters is to analyse and discuss the findings obtained from all stakeholders involved in the study (pupils, teacher-researcher and GKTs) and compare these with previous work highlighted in the literature review. By exploring how pupils viewed their PE experiences and how the LS units were perceived and experienced by other stakeholders (teacher-researcher and GKTs), I aim to evaluate their impact, particularly linked to MPE and SDT. Central to this examination is the integration of MPE features and pedagogies, which also emphasise autonomy, relatedness, and competence aligned with SDT. In addition, given the unique nature of the teacher-researcher role, space must be provided to analyse this role and process to potentially help future teacher-researchers who may be able to learn from this.

The structure of the following chapters is outlined below, which aligns with the headline themes from the research:

- Chapter Six – Meaningful physical education
- Chapter Seven – The potential for lifestyle sports
- Chapter Eight - Curriculum change

- Chapter Nine – Being a teacher-researcher.

Chapter Six – Meaningful Physical Education

This chapter will analyse and discuss several key areas aligned with MPE. Firstly, it will consider the purpose of PE and how pupils and teachers within the study view current experiences within the subject. Subsequent sections will consider both the features and pedagogies of MPE and how these were seen and received in the intervention. Finally, the chapter will consider some of the challenges of implementing the MPE approach.

6.1 - The Purpose of Physical Education

The purpose of PE was a key theme drawn from several data sources. Insights from both teachers and pupils spoke to this point, which, as seen in the literature review, has sometimes been a point of debate (Kirk, 2012; Lyngstad et al., 2020; McEvoy et al., 2015). The pupils articulated their views, which can be seen in the extracts below.

“I'd say the same. Like, feeling as if you're improving at something, and also feeling as if you, you've learned something and you've got a good level of skill in it at” (Henry, Focus Group 2, Parkour)

“It's quite nice to learn those things, and then if you really enjoy them, you can carry them on elsewhere” (Max, Focus Group 2, Parkour)

“To learn a new thing and to get better at it” (Questionnaire response)

A key factor for the pupils here was seeing themselves learn, progress and develop competence within an activity (or the subject more broadly). Competence is a crucial facet of both physical literacy and MPE. When we consider that more competent movers are more likely to engage in further PA (Coppens et al., 2021), this was a notable finding. Whilst certainly not at the forefront of the pupils' minds, this did align with two of the goals for PE outlined in the national curriculum (DfE, 2013. p.1) “to ensure that all pupils develop competence to excel in a broad range of physical activities” and “to ensure that all pupils lead healthy, active lives”. The notion of developing competence and healthy participation are also featured in the recent Ofsted (2022) research review, where they are highlighted as two of the three key pillars within the subject (the other pillar is linked to rules, strategies and tactics of sports).

Whilst developing competence was seen as essential to many pupils, other elements of the core purpose of PE were also important to them; these are demonstrated in the quote below.

“To be with my friends and being able to talk and have fun with them as well as working hard to get better at the sport” (Questionnaire response)

Many pupils highly valued the social elements of PE and saw them as integral to their PE experiences. Social elements are one of the key features of MPE (Beni et al., 2017), where pupils enjoy interactions with friends and peers during their lessons. These social elements also help to foster a sense of relatedness, an essential facet of SDT (Deci & Ryan, 1985). Another feature of MPE that was pivotal to many pupils was the notion of fun and/or enjoyment. Some pupils equated fun with an optimal level of challenge, whilst others noted the activities being fun or mixing with friends, leading to a fun experience. The key features of MPE (including social elements and fun) are further explored in subsequent sections of this chapter.

Teachers also commented on what they saw as the purpose of PE:

“I think success always looks like that they're enjoying it, that you're getting high participation... You want them to find something they love to do and then try and encourage them to then, erm, pursue it outside of school or then when they then leave education that they then have found their thing” (Jess, Teacher Interview)

“I think the ultimate goal is to make sure that students have this lifelong participation in PE, whether that's, erm, sport, whether that's exercise, erm, as long as they're consistently doing something for the rest of their life, erm, I think that's the overall aim” (Joel, Teacher Interview)

There was a consensus on the purpose or goal of the subject that had a good level of agreement between both teachers (and, to some extent, the pupils) – a good quality PE programme should lead pupils to value and embrace a physically active lifestyle. It is also connected with the broader concept of physical literacy, where early PA experiences, such as PE, intend to promote a positive lifelong physical literacy journey, with PE playing a key role in laying those foundations (Lundvall, 2018; Whitehead, 2021). The visions for the subject here also align with the key outcomes of a meaningful PE experience – that pupils align their lives to allow movement/PA to enrich their existence. Therefore, using MPE as a vision for the subject seemed a good fit for the teachers in this study. This aligns well with previous work around visions and purpose in PE, specifically MPE (Ní Chróinín et al., 2019). This was a key finding in a similar implementation study by Beni et al. (2019), who reported that having a vision or belief clearly aligned with MPE meant the implementation of the approach became less turbulent and a natural fit with the teachers' beliefs.

Perhaps, most notably within this section, is the alignment between the views of the pupils and the teachers. Suppose we also add my views as the teacher-researcher (see introduction chapter). In this case, we have the three major stakeholders in the study working towards the same common goal for the subject. At a time when the purpose of PE is frequently debated (see section 2.3) this perhaps helped to create favourable conditions for the intervention to be successful, something that will be reflected upon in the conclusion chapter.

6.2 Current Experiences of Physical Education

From the questionnaire data, analysing experiences of PE prior to the intervention units, tables 6.1 and 6.2 highlight some of the key findings within the whole sample, each school and broken down by sex.

Table 6.1 – Normal Physical Education Questionnaire Responses Linked to Meaningful Physical Education Constructs

MPE Construct	Median Score All Pupils n = 50 (IQR)	Median Score Park School n = 23 (IQR)	Median Score Cross School n = 27 (IQR)	Median Score Boys n = 23 (IQR)	Median Score Girls n = 27 (IQR)
Social	12 (3.0)	14 (2.0)	12 (2.5)	13(3.0)	12 (2.0)
Competence	12 (1.0)	12 (1.5)	12 (2.0)	12 (2.0)	12 (2.0)
Fun	12 (3.0)	12 (1.5)	12 (5.0)	12 (1.0)	11 (3.0)
Competition	13 (3.0)	13 (3.0)	11.5 (3.0)	12 (4.0)	11 (3.0)
Challenge	12 (2.0)	12 (1.5)	12 (2.5)	12 (2.0)	12 (2.0)
Choice	10 (2.25)	10 (1.5)	11 (2.5)	11 (2.0)	10 (2.0)
Personal Relevance	11 (3.0)	11 (2.0)	11 (2.5)	10 (3.0)	11 (2.0)
Overall Meaning	12 (2.25)	12 (2.5)	12 (2.5)	12 (3.0)	12 (2.0)
MPE Pedagogies	11 (3.0)	11 (2.0)	11 (4.0)	12 (3.0)	11 (2.0)

*Likert scores converted to numbers (Strongly agree – 5, agree – 4, neutral – 3, disagree – 2, strongly disagree – 1; three questions per construct = max 15)

Based on the data above, pupils generally reported positive perceptions of PE (a score of 11 or above in a construct would typically indicate a 4-4-3 scored response – agree, agree, neutral) in relation to several constructs associated with MPE. The overall meaning scores of 12 across all groups generally speaks to a meaningful experience in the eyes of the pupils, which is pleasing to see. The highest median scores were observed in the social (12) and competition (13) constructs, indicating that students found PE to be socially engaging and competitive. Competition did, however, show the highest IQR, suggesting some mixed views in the data which aligns with previous work in this area (Aggerholm et al., 2018; Beni et al., 2017). Notably, Park School pupils rated the social construct very highly (14), suggesting stronger peer interaction or a more collaborative environment in that setting. In contrast, choice recorded the lowest overall median score (10), perhaps indicating a perceived lack of autonomy in PE activities across both schools and genders, given the importance of autonomy shown through SDT (Ahmadi et al., 2023) and MPE work (Fletcher & Ni Chronin, 2021) this is an interesting finding which suggests a more controlling teaching approach than advocated in the MPE literature. This is perhaps an area where pedagogical approaches could be adapted to provide students with greater agency and involvement in decision-making.

Gender differences were evident in several constructs. Boys consistently reported slightly higher median scores in competition, social, and MPE pedagogies, suggesting that they may find PE more engaging in these dimensions than girls. Additionally, while the fun construct showed relatively high medians overall, it also displayed a notable disparity, particularly among girls (median = 11) and at Cross School (IQR = 5.0), reflecting inconsistent experiences. Given the notable literature (see e.g. Cowley et al., 2021; Mitchell et al., 2015) and concern around girls experiences in PE and PA, this is an area that could be reflected on by the schools in this study. The narrow interquartile ranges in constructs such as competence (IQR = 1.0–2.0) suggest a consensus among pupils, indicating stable perceptions of skill development and capability. Overall, while students appear to find PE moderately meaningful (median = 12), the variability in certain constructs highlights opportunities to enhance the consistency and inclusivity of PE experiences.

Specifically looking at the questions relating to overall meaning (questions 25-27), which provides an excellent snapshot of pupils perceptions of PE, we can again see a mixed response summarised in table 6.2.

Table 6.2 – Overall Meaning of Normal Physical Education

Question	Negative Score (2 or below)	Neutral Score (Score 3)	Positive Score (4 or above)
Q 25. My experiences in PE are memorable for positive reasons.	Park School - 0 Cross School – 1 Total = 1 (2%)	Park School - 7 Cross School – 8 Total = 15 (30%)	Park School - 16 Cross School – 18 Total = 34 (68%)
Q 26. I see taking part in PE as something that is important, significant and worthwhile.	Park School - 0 Cross School – 2 Total = 2 (4%)	Park School - 1 Cross School – 4 Total = 5 (10%)	Park School - 22 Cross School – 21 Total = 43 (86%)
Q27. PE makes me motivated to be physically active in my own time	Park School - 1 Cross School – 2 Total = 3 (6%)	Park School - 5 Cross School - 5 Total = 10 (20%)	Park School - 17 Cross School – 20 Total = 37 (74%)

*Likert scores converted to numbers (Strongly agree – 5, agree – 4, neutral – 3, disagree – 2, strongly disagree – 1)

Based on the data, pupils' current experiences of PE are mixed. Many pupils find their PE lessons meaningful; others find them lacking meaning, and others describe some of their experiences as harmful (limiting their desire to engage in further PA). Just over two-thirds (68%) of pupils in the sample found their experiences in PE memorable for positive reasons, with approximately a third of pupils finding them neutral (30%) or negative (only 2%). In terms of pupils seeing PE participation as important, significant and worthwhile, 86% of pupils agreed or strongly agreed with the statement. This is a pleasing result, demonstrating that most pupils see value in the subject. In relation to question 26, which is a key aim of PE (to inspire pupils to take up further self-motivated PA), just under three-quarters of pupils agreed or strongly agreed that PE did this, with 20% neutral and 6% stating PE had the opposite impact.

Direct comparison of these results to previous work is difficult as it is only the second time a specific questionnaire aligned to MPE has been used in a research study. The first known publication using a quantitative measure of meaningfulness (Alshuraymi & Hastie, 2024) mainly reported the difference between normal PE and a sport education intervention. It did not report any detailed analysis of pupils' perceptions of normal PE. Their tool also only assessed the features of MPE rather than the overall meaning attributed to the experience.

However, data from their study did support the use of more pupil-centred pedagogies (aligned to MPE) in a similar vein to the present research.

Perhaps of best use for comparison is the data on young people's attitudes towards physical activity from the latest Sport England Active Lives Survey (2023). Data here is reported on levels of enjoyment, confidence, competence, understanding and knowledge in relation to participation in sport and physical activity. Of the children and young people who report three or more positive attitudes (have a meaningful relationship with activity), 62% are active, compared to just 33% of those who report no positive attitudes, outlining the importance of creating positive and meaningful experiences for young people. Within the present study, attitudes appeared to be more favourable (see Table 6.1 and 6.2). However, it is clear from the data that for some pupils, their current version of PE is either having a minimal or a negative impact on their intentions to engage in further self-motivated PA, aligning with previous research on negative experiences (Ladwig et al., 2018; Lewis, 2014) and alienation (Kim, 2022; Spencer-Cavaliere & Rintoul, 2012). This is an issue that warrants further attention, even though most pupils in the sample were finding their current experiences in PE to be positive.

Within the questionnaire, pupils were also asked to complete two sentences: "I like PE best when..." and "The one thing I would like to change about PE is...". Analysing the responses to these two questions provides further insight into pupils' experiences of PE prior to the intervention units. The quotes below echo sentiments from many of the pupils.

"[I like PE best when] we play sports/activities I enjoy" (Lilly)

"[I like PE best when] we are participating in a range of varied activities, particularly when these allow me to interact with others" (Mohammed)

For Lilly, Mohammed, and the sample more broadly, the lessons' activities can positively influence their experiences, showing the MPE feature of fun. While Lilly alludes to activities she finds enjoyable, Mohammed enjoys a range of different activities and touches on social elements, another key feature of MPE. Where there is alignment with personal preferences, the feature of personal relevance comes to the fore (Beni et al., 2017; Fletcher et al., 2021). Pupils tended to enjoy lessons more when the activities aligned with activities they value or

enjoy. An element of choice and social interaction were also noted as helping to make PE experiences more positive, exemplified in the quotes below.

“[I like PE best when] we work in groups and we get to pick our groups”
(Whitney)

“[I like PE best when] I can choose who I work with and also when we are doing my favourite sports” (Zane)

In a similar vein to Mohammed, Whitney and Zane placed a high value on the social interactions evident in lessons where they can learn alongside friends, creating a sense of relatedness and belonging, which has been shown to be a significant motivational factor (Ahmadi et al., 2023; Deci & Ryan, 1985) and another key feature of MPE (Beni et al., 2017; Fletcher et al., 2021). They also placed value on being able to influence their own groupings through choice. Ennis (2017) highlighted the power of autonomy/choice, and here, the element of choice allows students access to the social connections they find meaningful or fosters a greater sense of relatedness.

A sense of challenge also emerged in many of the quotes from the pupils.

“[I like PE best when] I can challenge myself and try something new” (Millie)

“[I like PE best when] we do competitions with our friends as it brings about a fun and exciting opportunity to showcase your skills in a supportive environment.” (Anna)

Millie and Anna allude to the feature of challenge. Beni et al. (2017) and Fletcher et al. (2021) highlighted challenge as another key feature of MPE, where finding the optimal or “just right” challenge helps pupils to find their lessons meaningful. Competition was highlighted as a sub-section of challenge in the literature; for Anna, this was clearly a motivating factor. However, competition can be divisive, and it was notable that Anna mentioned a “supportive environment” in this answer. Where competition is utilised, teachers have been advised to be careful how it is packaged and present pupils with some influence over their competitive experiences (Aggerholm et al., 2018; Stidder, 2022; Wintle, 2022).

Aligning with the feature of competence, many pupils commented on either feeling competent or getting better at activities.

“[I like PE best when] it is a topic I like (e.g. football, cricket) and if I am good at it (also football and cricket).” (Richard)

“[I like PE best when] we're doing new sports I haven't learnt yet as it's fun and interesting to learn a new thing and to get better at it.” (Matt)

Both Richard and Matt link to the feature of competence, a key feature of MPE (Beni et al., 2017; Fletcher et al., 2021), a critical component of physical literacy (Edwards et al., 2017; Whitehead, 2010) and SDT (Deci & Ryan, 1985). Whilst Richard identified enjoying activities he already perceived himself to be good at, Matt linked to the notion of improving or developing competence. Fletcher et al. (2021) warn against a sole focus on physical competence or skill performance as it can isolate or exclude some individuals; nevertheless, where challenges are presented at an appropriate level to generate feelings of competence (or getting better), this appears to be important to many pupils.

In summary, the responses here aligned well with MPE features and/or pedagogies (Beni et al., 2017; Fletcher et al., 2021). Indicating that pupils enjoy PE most when it involves their preferred activities (choice), allows for social interaction with friends (social), provides a level of choice and autonomy (choice, democratic pedagogies), includes a mix of fun and competitive activities (fun/challenge), and gives opportunities for personal growth and feedback (competence). Activities that are new, creative, or different from the routine also add to their enjoyment (fun). Pupils value working in a supportive team environment (social), having the opportunity to choose their groups (choice/social), and receiving constructive feedback from teachers. Additionally, the appropriate level of challenge and the ability to engage in activities in which they (challenge, competence) contribute significantly to their positive PE experiences.

6.2.1 – Improving Pupils Experiences in Physical Education

The data from pupils revealed several notable findings in response to the second statement, “The one thing I would like to change about PE is...”. The first element of this is related to curriculum design and the range/type of activities on offer.

“[The one thing I would like to change about PE is] is more variety in sports and activities like golf and swimming instead of football and rugby” (Toby)

“[The one thing I would like to change about PE is] the range of sports we do. I think we could vary sports in games lessons slightly more or be able to pick what we do” (Ali)

“[The one thing I would like to change about PE is] letting girls do more football and rugby and boys do dance, hockey and netball, instead of branding them as "girls sports" and "boys sports" (Liz)

A primary theme here is a desire for greater variety and choice in activities, something that has been echoed in the literature (Griggs & Fleet, 2021; Stidder, 2023). Pupils are seeking a wider range of sports, including non-traditional options like golf, swimming, and kickboxing, alongside more commonly offered activities from traditional competitive sports. In a similar vein to the recent work in England by Hemingway et al. (2023), pupils expressed a strong preference for having the ability to choose which activities they participate in, advocating for inclusivity by allowing boys and girls to engage in sports traditionally assigned to the opposite gender, such as dance for boys and football for girls, an issue highlighted by recent work based in England by Wilkinson & Penney (2023) where gendered grouping and curriculum were still seen as commonplace in the majority of schools.

Exposure to more PE in terms of time (duration of lessons) and frequency (number of lessons) also emerged as a potential area for improvement.

“[The one thing I would like to change about PE is] maybe the lessons could be longer because if you take out the time of getting changed they are shorter than others.” (Freya)

“[The one thing I would like to change about PE is] To have a more in depth practice on some activities” (Mike)

“[The one thing I would like to change about PE is] change how we do PE like for example do it 3 times this week not 2” (Jason)

The frequency and duration of lessons were raised as a significant concern for some pupils, highlighting them as a limiting factor in both their progress and enjoyment, a point echoed in research where the active learning time in lessons has been raised as a limiting factor for pupil progression and enjoyment (Powell et al., 2020). Pupils suggested increasing the number of lessons from two to three times a week and extending the length of each lesson to account for the time taken to change. This would not only ensure they have ample time for PA but also help them retain skills and knowledge by reducing the gap between lessons.

Girls' engagement in PE has been a concern recently (Cowley et al., 2021; Mills & Cooling, 2019); therefore, changes that can be made to increase engagement are worthy of investigation. Several girls mentioned their PE kit as one key area to improve.

“[The one thing I would like to change about PE is] I don't like wearing short skorts as it makes me feel insecure” (Kelly)

“[The one thing I would like to change about PE is] having a longer skirt and have buttons on my V-neck on my PE shirt so I can finally be comfortable. When teachers don't allow us to wear jumpers and long socks.” (Imogen)

Inclusivity and comfort in PE kits/clothing are crucial for many pupils (particularly girls), who mention the need for uniform adjustments to boost their comfort and confidence; elements of choice here would improve their experiences (Mills & Cooling, 2019). McIntosh-Delmado et al. (2023) support this notion, highlighting that a choice of PE kit amongst girls was associated with improved body esteem and subsequent enjoyment.

Fun and variety were two key elements pupils also mentioned when discussing possible improvements to PE.

“[The one thing I would like to change about PE is] make it less boring and more fun” (Katie)

“[The one thing I would like to change about PE is] if we did things that are more essential to real life and self-defence possibly rather than doing a whole term of dance (an activity only a few of us like). (Anita)

Pupils emphasise the need to make PE more engaging and fun. In alignment with previous research in this area (Beaumont & Warburton, 2019; Griggs & Fleet, 2021; Wintle, 2022), suggestions include incorporating more exciting and diverse activities, organising field trips, and experimenting with more extreme sports to increase the level of personal relevance and perceptions of fun, both key features of MPE (Beni et al., 2017; Fletcher et al., 2021).

The features of MPE (Beni et al., 2017; Fletcher et al., 2021) are powerfully relevant to the experiences of pupils within the sample, their presence leading to positive experiences and absence often causing frustration. It is also notable that the pedagogies associated with MPE were frequently mentioned as enhancing pupil experiences in PE. Particularly, elements of

democratic practices and choice were significant in improving pupils' perceptions of their lessons, or where these were absent, had a negative impact on experiences. Close ties are also evident between facets of MPE, SDT and physical literacy, which appear to align well with pupils' positive experiences.

6.3 Meaningful Physical Education as a Vision for Physical Education

A key factor in being open to implementing more student-centred pedagogies was a vision and philosophy that aligned with the MPE approach. The extracts below from teaching reflections allude to this commitment, which was central to the unit's implementation.

“I was pleased to hear that pupils seemed on board with the general idea of meaningful experiences, for this was my vision and goal for the units (and PE more broadly). It was somewhat of a relief to hear pupils articulate this view, as it would have been difficult to commit fully to a meaningful PE approach if there wasn't alignment/agreement between what I wanted them to get out of it and what they did. In the trueness of being pupil-centred, I should be helping them to achieve their goals.” (Teaching Reflection 1, Parkour)

“I was able to stand back for a minute or two today as the groups worked on their chosen WOD, I was really pleased with what I could see, pupils on task, but importantly really engaged with the activity and each other. This was my vision at the start of the unit, and it was great to see it being played out in the lesson.” (Teaching Reflection 4, CrossFit/Kickboxing).

Ní Chróinín et al. (2019) articulated the importance of vision in their paper on using MPE as a vision for PE. Here, they found an alignment between their philosophies towards PE and the earlier work on meaningfulness from Kretchmar (2006). Dissatisfaction with the status quo (current practice in PE) also added weight to a “new” vision for PE centred on meaning-making. The quotes above suggest this resonated with the teacher researcher, which was articulated in the introduction chapter but is also highlighted in the first reflection from the parkour unit and a mid-unit reflection from the CrossFit/kickboxing unit. The alignment of vision with MPE meant that I felt comfortable committing to the pedagogies advocated by the work on MPE. The following sections will highlight how I was intentional with my teaching approaches committed to the pedagogies of MPE and used the features as a critical lens when planning and teaching the lessons.

6.4 The Key Features – Creating a Shared Language

Within the intervention units, the use of the key features allowed the teacher-researcher, pupils, and observing teachers to create a shared language for planning, describing, and evaluating the lessons.

The first stage of this using MPE as a priority filter within the interventions was in the lesson planning phase. Here, the lesson planning process, and specifically the lesson plan template, forced the teacher-researcher to consider the features and pedagogies of MPE at the outset of the planning process. Figure 5.1 shows an example lesson plan from the units where we can draw attention to several key areas that demonstrate a genuine intent to focus on meaningfulness.

Figure 6.1 – Meaningful Physical Education Planning Example

Meaningful PE Lesson Plan – Lesson 1 – Kickboxing/Crossfit – Stance and Conditioning				
Teacher/Coach	School/Club/Duration	Date	Group	No of participants/SEN Needs
J.Wintle	Churchdown – 45 mins	19/04/2023	Year 7 mixed gender and ability	28
Prior learning Limited/no experience in the activity.		Equipment/Space requirements Outdoor MUGA Gloves x 15 Kick shields x 7/8 Focus Pads x 15 Cones (stack)		
Learning Objectives/Outcomes:				
Primary objectives – To understand and demonstrate correct stance and to work to a just right level of challenge for your ability (edge/just beyond your comfort zone).				
Key features of MPE accessible or amplified within the lesson • Social – paired and small group work to share the experience with others including opportunities for goal setting and reflection. • Motor competence – demonstrate a suitable level of motor competence to complete tasks showing good technique. • Challenge – be able to adapt activities or movements to present yourself with a level of “just right” challenge – working just beyond your comfort zone. • Personal relevance – reflect on the content of the lesson to connect your learning in the lesson to your physical activity choices in your own time. • Fun – novelty and anticipation of something new – combining elements of social and challenge features to generate feelings of fun/delight.				
Strategies for adaptive teaching: • Intensity can be adjusted by the individual to work at suitably challenging level. • Options to adapt most exercises for easier/harder versions. • Different roles can be allocated (coach/trainer/pad person) for any pupils with injuries/limited participation.		Key questions for participants (linked to LO’s/MPE features/pedagogies): • Can you set yourself a goal for the lesson today and unit as a whole? • What makes a good PE lesson for you? Key features? • Where were you able to relate the features to your experience today?		
Health & Safety / Risk Assessment • Check all equipment before use, pupil check in at the start of the session. • Pupils instructed to work in comfort zone initially and only progress in small increments. • Thorough warm up and safe exercise practice throughout. • AfPE guidance for combat sports followed – non-contact only.		MPE Teaching Focus: • Use of democratic pedagogies, goal setting and reflection. • Looking out for the features in action, what visible signs are there for the features?		

Lesson Structure

Time (mins)	Participant activity	Organisation/equipment	Teaching and learning points	Teaching approaches and connections to MPE
0-5	Introduction – to me, the unit, the study, MPE, safety and expectations. Share lesson focus and objectives for today. What kind of atmosphere do we want to create in these lessons?	Pupils sat around whiteboard – use of whiteboard with key headings/areas as a reminder. Some think-pair-share activities – Q&A.	- Listen, Ask, Work – LAW - Lifestyle sports intervention study (brief) MPE overview – features, goal setting and reflection. What is meaningful to you in PE? Kickboxing/cross fit – fitness-based unit using kickboxing as a stimulus – non-contact only.	Sharing reasons why we are doing what we are doing. Not just about learning KB – find what is meaningful to you in your movement activities. Goal setting element – lesson/unit.
5-15	Warm Up Chatty jog in pairs - 2 mins Quadrupedal movement activity linked to animal movements. Progress into quadrupedal tag game "jockeys and horses" – link to race week!	Paired anywhere in space - key question to consider- what makes movement meaningful for you? In pairs – 1 work, 1 rest. Teacher led in practice style. Working over 5-7m in a forward and backward direction. Tag game – player 1 has 5 secs to escape before player 2 has to try and catch them – all movements are quadrupedal.	Pulse raiser activity with a question to focus conversation on. - Quality of movement over speed. - Mobility development - Total body – engage all muscle groups. - Bear crawl, duck, caterpillar, monkey.	Social element – exploring what makes movement personally relevant? Choice of who to work with and pace. Finding your "just right challenge". Developing/assessing motor competence. Anticipate some degree of fun in this too as it is quite novel along with the end game.
15-23	Speed Punches Groups of 4. First person jogs out to the pad completes 10 speed punches, runs past the pad to the turn point – repeats 10 punches on way back (next person goes). On return complete 5 squats/squat jumps then rest and wait.	In 4's working across the space with the pad in the middle. Queue _____ Pad _____ Turn Change pad holder after 2 rounds.	- Correct holding of pad (as demo) - Think about your stance on first go we will go over this - Speed punches not power - Quality of movement in squats (low, back straight, head up)	Motor competence – complete the circuit safely and efficiently. Social – small group work Challenge – stretch yourself by changing intensity/pace. Fun – elements above combine to meet this for some pupils.
23-25	Introduction to correct stance (demo)	Pupils gathered – teacher or pupil to demo with teacher highlighting key points	- Split stance (opposite foot forward to your dominant hand) - Diagonal line between feet - Forearms straight down and tucked in) - Chin tucked - Arms length from target	Motor competence – pupils to copy technique and show their best version of the stance.

In the initial planning phase, the objectives section considers making all features of MPE accessible to the group, with some examples provided of how this feature has been considered. Given that we do not know what features may be important to any given pupil, consideration must be given to all features. Finding an appropriate level of challenge has been highlighted as a key feature in previous work using the MPE framework (Vasily et al., 2020), and with this in mind, the strategies for adaptive teaching highlighted on page 1 of the plan become vitally important. You can also see how the key questions and teaching focus show a genuine intent to commit to the pedagogies of MPE. Within the second page (lesson structure), you will find the first two columns that set out the tasks and the organisational elements. The third column has a direct link to competence with technical elements that also help with safe practice. The most important column in relation to meaningfulness is column four, where you can see that consideration is given to the features and pedagogies of MPE within each task or phase of the lesson.

In a similar way, as reported by Beni et al. (2021) in their work with primary school teachers in Ireland, where they highlighted how pedagogues could use the features as a starting point for developing a shared language for meaningfulness, which can help both teachers and

students better understand and become aware of what makes an experience meaningful. Beckey (2021) also highlighted the potential for meaningfulness and, specifically, the features to be used as priority filters for teachers' decision-making. The planning above shows this in action within the planning phase of the intervention.

Overall, the lesson planning phase prioritises meaningfulness, with the intent that this be the key filter for decision-making both before and during teaching. However, whilst intent is necessary, bringing this to life is perhaps more important, as evidenced in some of the teacher observations taken during the units that link to the features of MPE.

The teaching approaches within lessons generally aligned with a constructivist philosophy, reflecting key elements of MPE pedagogy. Open-ended tasks were commonly used, encouraging exploration and enabling pupils to work collaboratively in small groups, where peer support and shared problem-solving fostered social interaction and a sense of relatedness, both central to meaningful experiences. Even in activities where safety considerations required more structure, opportunities for pupil autonomy were preserved through choices such as the length of work periods in CrossFit or the height of equipment in parkour. These approaches are consistent with MPE's emphasis on learner-centred pedagogies that promote autonomy, challenge, and personal relevance, thereby increasing the likelihood of engagement and meaningful participation.

6.4.1 Social Interaction

Social interaction was a key feature of MPE that all stakeholders frequently cited as playing a significant role in pupils' PE experiences, but it was particularly heightened in the observations.

“Working in groups to put their routine/video together, lots of collaboration and discussion needed within groups but also pleasing to see interaction between groups to share ideas and help each other.” (Parkour lesson observation 6)

“Interactive warm up in pairs (that pupils chose) encouraged discussion and peer assessment. Lots of communication within groups during main activities, lots of on-task type discussions where pupils were helping each other. There was a specific objective on the board about working well as a group and the pupils seemed to respond to this well.” (CrossFit/Kickboxing lesson observation 1)

It was pleasing that the GKTs saw a deliberate and well-managed attempt to incorporate group work with a high degree of social interaction in the lessons. This was also combined with an element of pupil choice over groupings and tasks and learning outcomes designed to promote discussion/support with peers. Whilst not a deliberate attempt to use cooperative learning, the lessons naturally seemed to be shaped toward this type of set-up that has proved successful in previous intervention research (Bores-García et al., 2021; Bjørke & Møhen, 2020).

6.4.2 Challenge

Challenge, and most notably, appropriate challenge, was significant for both observers in creating lessons that were engaging and accessible to all.

“Lots of progression opportunities, challenge largely dictated by the height of the box (which pupils could vary themselves) and also by adapting to easier or harder techniques” (Jess, Observation, Parkour lesson 3)

“The level of challenge could be adapted within the kicks by moving the height of the pad (higher = more challenge), pupils could add to the challenge by combining the kicks with the knee and elbow strikes. Perhaps the hardest bit here is seeing who needs more challenge and who would benefit from more practice time - always difficult in a large mixed ability group.”
(CrossFit/Kickboxing lesson 3)

The observation quotes show an attempt to manage the level of challenge by allowing pupils to choose varying points of difficulty in each activity. This is a key strategy in adaptive practice, providing all pupils with the same learning goals/objectives but providing more scaffolding for students who need support (Eaton, 2002; Newton, 2023). Perhaps most notable in the quotes is that the pupils had control over the level of challenge rather than this being dictated to them. This helps to generate feelings of autonomy and competence, key elements of SDT and has been identified as good practice in the recent work on teacher behaviours and self-determination in PE (Ahmadi et al., 2023). Intricately connected to challenge is the feature of competence.

6.4.3 Competence

Inextricably linked to challenge, the feature of competence was also noted as significant for both Robert and Poppy when observing the lessons.

“Pupils were able to show what they felt they were most competent at as the freedom of the task meant not everyone had to complete each suggested element of parkour. Positive feedback from the teacher linked to effort and outcome helped” (Parkour lesson observation 5)

“Whilst general competence varies across the group, all pupils had the opportunity to access the lesson at their own level and I could see all pupils making progress (either in their intensity levels or improved technique).” (CrossFit/Kickboxing lesson observation 4)

In the mixed-ability groups, there was a large spectrum of abilities; therefore, allowing all pupils to feel competent is a crucial challenge. The observation notes demonstrate the link between challenge and competence. Combining elements of pupil choice in the parkour lesson meant pupils could pick elements of parkour they were most confident with. Within the CrossFit/Kickboxing lesson, the exercises had elements of choice (easy/middle/hard) so pupils could adapt their technique to work at an appropriate level to generate feelings of competence. The use of positive feedback for both effort and outcomes aligns well with the work on teacher behaviour and initiating feelings of competence (Ahmadi et al., 2023) and noting that pupils often put in more effort when they feel competent (Gray et al., 2008) using both peer and teacher praise to generate these feelings is key.

6.4.4 Fun

Both Poppy and Robert noted how fun was linked to other features of MPE or the teaching approaches utilised in the lessons.

“The combination of challenge, having a variety of different tasks/stations, and the social elements seemed to combine well to create a fun and enjoyable lesson. Lots of evidence of this with high levels of activity, proactive discussions, and lots of smiles/laughter during the lesson.” (Parkour lesson observation 2)

“Social and fun warm up combining speed, endurance and skills. The pupils are engaged and excited by the activity itself but also helped by the teaching approaches and atmosphere created.” (CrossFit/Kickboxing lesson observation 5)

It was helpful to see how fun was often the product of the interplay between other features and teaching approaches in the observers' eyes. This is in alignment with previous work on fun, where Fletcher et al. (2021) warn that fun should be seen in combination with learning. However, they do note that fun often leads to increased engagement and motivation, which then positively impacts learning/competence. Social elements have also been highlighted as necessary for promoting feelings of fun in secondary pupils (Dismore & Bailey, 2011). Previous feedback from pupils also noted the link between competence and fun (Abildsnes et al., 2020). The novelty/nature of the activity also played an essential role in Robert observing the CrossFit/Kickboxing lesson, a point highlighted in work around situational interest in PE (Chen, 2015) where novelty (something new/different) has proven an essential factor for many pupils, this is noted in more recent work from Saiz-González & Fernandez-Rio (2024) and Saiz-González et al. (2025) who went as far to suggest novelty could be a new feature of MPE (this is explored in more depth in chapter seven).

6.4.5 – Personal Relevance

Allowing pupils to see the relevance of their lessons and the activity itself helped to facilitate positive observation from the observing teachers.

“Teacher was able to make all of the content relatable to what they had done previously (in other activities) and how they might use it in a real-world parkour situation (encouraged use of imagination)... helped with them seeing relevance between what they might do in school and how that relates to their own PA choices” (Parkour lesson observation 1)

“Discussed how pupils could create a mini circuit such as this for themselves in a home environment, also discussed the importance of good technique and finding the right level of challenge to help maintain/improve fitness.”
(CrossFit/Kickboxing lesson observation 4)

The observations show how the teacher used signature pedagogies of MPE to help show the lessons' personal relevance. Reflection and providing rationales for activities have been advocated as key to elevating personal relevance and allowing pupils to see how their learning can be helpful beyond the PE class (Fletcher & Ní Chróinín, 2021). Further evidence of the use of key pedagogies comes from the use of choice.

6.4.6 Choice

The democratic pedagogies linked to pupil voice and choice were also commented on positively.

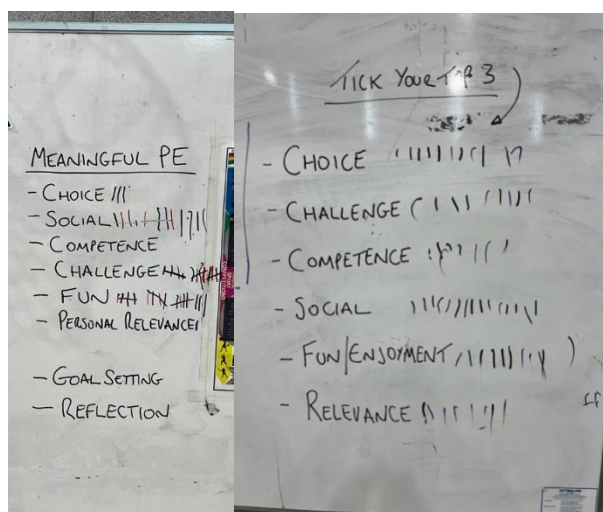
“Most activities involved the teacher providing a small amount of instruction on the purpose/objective of the task and any safety instructions, pupils then had the freedom/autonomy to decide how they might address the task to meet the objective. This seemed to help with pupil buy-in and inclusion by not just having one way to complete the task” (Parkour, lesson observation 2)

“Lots of pupil autonomy within the 4 phases of the lesson provided by Jordan, within each phase pupils had freedom to meet the task requirements however they saw fit. Groups were pupil selected which helped pupils feel confident and safe. Lots of opportunity to choose content that suited the purpose of each phase and called upon previous learning. Also opportunity to select different roles within their group - coach/performer/timer etc.” (CrossFit/Kickboxing, lesson observation 7)

Whilst elements of choice/democratic approaches have been evident in other features, it was helpful to see how the observing teachers interpreted the use of choice in the lessons. The ability to select content, how tasks may be tackled, groupings and roles helped to give pupils the sense of ownership that has been advocated in previous research assessing pupils’ experiences of PE (Hemingway et al., 2023; Lewis, 2014) and specific work implementing MPE (Beni et al., 2021; Cardiff et al., 2023; Vasily et al., 2020).

The extracts from the teachers' observations demonstrate a clear attempt by the teacher-researcher to provide opportunities for pupils to experience the features. For many pupils, this allowed them to access the feature that they valued the most. This question was asked to each of the pupil groups within their units. For example, Figure 4.2 shows a reflection task that pupils completed at the end of their lessons when they were asked which two or three features of MPE contributed most to their positive experiences in the lesson.

Figure 6.2 Reflecting on the Features in Lessons



Within the parkour group (left image), pupils preferred social interaction, challenge, and fun. Within the CrossFit/Kickboxing group, the split was more evenly distributed, but social elements were again strong, along with fun/enjoyment and choice. The challenge here is that for each student, the combination of features that lead to a meaningful experience can be different.

Much like Beckey (2021) describes the equaliser approach to features (see literature review figure 2.3), where sometimes features are either amplified or dampened, the key for the teacher-researcher here is that the pupils needed to be responsible for that process of amplification or dampening. So, the teaching approaches and lesson design had to allow access to all features where possible. What was clear from the conversations with pupils, and in a similar vein to recent work from O'Connor (2019) and Fletcher and Ní Chróinín (2022), was that MPE and the features helped to provide a shared language to describe their experiences in PE. It was also evident that the pre-existing features all had a degree of significance to many of the pupils.

6.5 – Working with the Features

While the planning and intentional focus on the features of MPE helped to bring them to the forefront of the lessons, working with the features did not always come naturally or easily to the teacher researcher, as evidenced in the reflection comments below.

“There were features I felt I could easily manipulate (choice, social, challenge, competence to some degree), whilst I tried to make it personally relevant, this felt quite individual and often harder to manipulate (although I often tried through providing rationales and 1-2-1 chats). Fun seemed to often be a product of the interaction of other features, but this wasn’t always the same feature for each pupil too. Some found fun heavily linked to social elements of the lesson, whereas others it was about challenge (and sometimes competition within this)” (CrossFit/Kickboxing Reflection 7)

“I feel like there are some features that are easier to manipulate than others. For example, I can enhance social elements by groupings and roles or challenge by setting different heights of a box. However, other elements are less tangible/more complex, or need further exploration, such as personal relevance or fun (which can be quite individual), and competence can be limited by athletic ability with pupils not wanting tasks overly simplified. Something to grapple with next week.” (Parkour Reflection 2)

This equates with the findings from Beni et al. (2021) to some degree. They described some of the features as symbiotic, acting in a relational approach, where features would impact one another. This is evident in some of the focus group data from pupils when talking about the features. For example, for Megan, an element of fun came from who she was working with, linking social elements with fun.

“I think, um, fun and enjoyment and social and choice were the most important for me, because if you don't like the people you work with, you're not gonna really like it, and yeah, and if you get, then if you're social with other people, you're gonna like it even more.” (Megan, Focus Group 3, CrossFit/Kickboxing)

For Courtney, enjoyment (fun) came from finding an appropriate level of challenge with elements of choice.

“When we'd, like, when we had the freedom to do, like, pick our own combinations and stuff, I kind of enjoyed it more though, because the, you get to set yourself, like, your own challenge and not someone else setting your challenge” (Courtney, Focus Group 3, CrossFit/Kickboxing)

For Tom, having the choice to adjust the level of challenge helped to illicit greater feelings of fun.

“It was very fun, and it's like, what I liked about it was, if something was too hard with parkour, there's always another way around it” (Tom, Focus Group 4, Parkour)

Louise explicitly linked competence, social elements, and fun when asked what made the parkour lessons enjoyable.

“So the first one would be fun because obviously, erm, it was, like, you were with your friends and everything, and you could - it wasn't like you had to be quiet and just do it... And then the competence. Like, we learnt new skills, and personally, I feel like before, I couldn't do a parkour roll. I didn't know what it was, and then after, I'd learned a whole new, like, skill, so that was good.” (Louise, Focus Group 1, Parkour)

The interconnected nature of the features was also evident in the teacher interviews.

“I think whenever I heard them talking, it was always on task, which is always a good sign, you know they're enjoying it if the, whenever their conversations are happening, they're on task. I think allowing them to pick their groups, allowing them to always work in groups, I think always helps. It doesn't work with every group, you can't sometimes always allow them to pick who they work with, but I think when you can, I think it has so much more impact because it, it makes them want to do better, it makes them want to work harder because they're with people they want to be with. I think it was, it was sociable, they were all having a good time, like, with their friends, but while learning” (Poppy, Teacher interview, Parkour)

When commenting on the features they had seen most often or most significantly in the pupils' experiences, Poppy highlighted the connectedness between social elements, choice, and elements of challenge.

Robert's comments linked to the CrossFit/Kickboxing unit also demonstrated overlap between some of the features.

“Yeah, erm, I think the ones that were really good, erm, was the social aspect, erm, and challenge and being fun and enjoyment, the enjoyment, sorry. Erm, I think they were really clear in terms of a lot of the students were talking about the technique, erm, obviously it being new. Erm, a lot of them were deciding on what circuit to do, erm, and talking through that and telling them how to do it and so forth. Erm, the enjoyment, that was, that was evident throughout. I think a large majority of them, erm, enjoyed it, they had fun, they were exposed to new skills, new techniques” (Robert, Teacher Interview, CrossFit/Kickboxing).

The commentary here highlights how social interaction and challenge led to fun and enjoyment for many pupils and where elements of choice created opportunities for discussion (social interaction). The new skills and techniques that pupils were introduced to also helped to foster feelings of fun/enjoyment.

It is important to note that pupils were provided with the opportunity to expand on the original features of MPE both within the survey and the focus groups.

“Keeping my physical health good and exercising regularly” (Orla, Parkour unit, questionnaire response)

“I think health is very important to me as I know very well how to stay healthy and PE helps me maintain this to a beneficial standard.” (Annabelle, Parkour unit, questionnaire response)

“I feel like one of the features of PE I think is the most important is fitness. I want to be fit and not be lazy and inactive.” (Russell, Parkour unit, questionnaire response)

“Health because it is important to me” (Willow, CrossFit/Kickboxing Unit, questionnaire response)

Responses in these data sources added little to the pre-existing features. However, under the umbrella of personal relevance, a small number of pupils mentioned the concept of health or well-being in their responses; however, rather than seeing this as a potential additional feature, their responses aligned more closely with making PE relevant to their lives beyond the school as health was an element they attached value to and connected with their lives beyond the school gates. Whether health could exist as a feature perhaps needs further investigation from a broader range of young people.

This section highlights both the relevance and the interconnected nature of MPE features observed in the lifestyle sports intervention and in responses to views on normal PE, aligning with previous work (Beckey, 2021; Beni et al., 2017; Beni et al., 2021), that described these features as symbiotic and relational. The focus group data and views of the observing teachers reveal how various elements, such as fun, social interaction, choice, challenge, and competence, are intertwined, collectively enhancing the educational experience for pupils. Fun often stemmed from positive social interactions and the ability to choose and adjust challenges. At the same time, competence was linked to enjoyment through skill acquisition and feelings of progress, often by manipulating the level of challenge. These interdependencies illustrate that the effectiveness of MPE arises from the dynamic interplay of multiple features, each influencing and reinforcing the others to create

a holistic and engaging learning environment that, importantly, can be different for each pupil. However, within the age group in the sample, elements of social interaction and choice appear to be critical features that teachers should be aware of.

6.6 Meaningful Pedagogy

Whilst the features are important and relevant in terms of pupils describing both their positive and negative experiences in PE, the teaching approaches employed either enabled or hindered pupils from accessing those features and subsequently experiencing feelings of personal significance. Fletcher & Ní Chróinín (2021) highlight how MPE pedagogy rests on three key pedagogies: goal setting (often individualised), reflection (on these goals and connecting aspects of PE to their wider lives) and democratic approaches (where pupils are seen as co-constructors of their learning). When pupils reflected on teaching approaches that limited their positive feelings towards normal PE, it was often due to an absence of these approaches.

“Sometimes what the teachers say can be a bit vague, like, not one specific thing you can work on. So, like, you can't figure out what you need to improve on and what you don't, as well as you could” (Amy, Parkour, Focus Group 1)

“Perhaps, during lessons, there could be time when teachers (and peers) could help more to focus on individuals progress within the subject (and help them to improve even more)” (Mohammed, Parkour, Questionnaire Response Pre-Unit)

The lack of personalised goal setting and feedback on these goals clearly left Amy and Mohammed feeling somewhat deflated and potentially ignored. When comparing the data above to previous work in this area, it is worth reflecting on the recent work linked to SDT and teacher behaviours from Ahmadi et al. (2023), who identified a range of teacher behaviours that were either need thwarting or need supportive (see literature review for a more detailed description of these). A lack of individualised feedback (and goal setting) was also highlighted in their work, and this links with Mohammed and Amy's comments above. The lack of relatedness implied in the comments speaks to what Ahmadi et al. identify as ignoring students (number 1 relatedness thwarting behaviour) or providing vague criticism where the teacher gives critical feedback with no actual instruction on how to improve (their number 6 ranked to thwart feelings of competence).

The lack of clear, individualised goals has also been identified in other recent work in this area (Aelterman et al., 2019), where the teacher approach highlighted in the quotes above could be categorised as an “abandoning teacher” (p. 498) who gives up on students. In this type of teaching, the teacher allows students to “do their own thing”; this creates a feeling of abandonment, which is, in turn, demotivating due to a lack of relatedness. This is identified in the work as a chaotic teaching style that could be a result of both teacher attitudes, but sometimes group size can make this a reality, even for the best-intentioned teacher. Within more recent work in this area, García-Cazorla et al. (2024) identified that pupils taught in this style had a lower desire to participate in further PE lessons; this was mainly because pupils feel they do not know what to do, how they should act, and how they can develop their abilities and capabilities.

Pupils also commented on the impact of a lack of democratic approaches.

“The thing I struggle with, I guess, most in sport is PE lessons where it's kind of like, you do this, or you don't, and it's like, and it's a bit, I guess, pressurising...it's like they really like pressure you to do this one thing for ages, and if you don't enjoy it, then you're stuck doing it” (Tom, Parkour, Focus Group 4)

“[The one thing I would change about PE is] having more say in the activities we do in lessons. I think PE is much more fun when you are doing something you actually want to be doing.” (Amber, Parkour, Questionnaire Response Pre-Unit)

“Well, in normal PE, we don't really get to have freedom” (Isla, CrossFit/Kickboxing, Focus Group 2)

The need for autonomy was identified as a critical feature of creating more motivational learning environments and is consistent with some of the extensive SDT reviews (Vasconcellos et al., 2019; White, 2021). Specifically linked to Tom’s quote above, generating pressurised situations was the number one need thwarting behaviour identified in Ahmadi et al.’s (2023) work, where they commented that teacher-created pressurised environments increase pupils perceived external pressure to complete the task for imposed reasons and subsequently decreases their motivation. Similar findings were reported in recent work analysing controlling and autonomy-supportive styles, where De Meyer et al. (2016)

identified that pupils are more engaged and would show less oppositional defiance when they interact with an autonomy-supportive instead of a controlling teacher during PE. This supports the views expressed in the present data.

On a positive note, where the key pedagogies of MPE (democratic approaches, goal setting and reflection) were present, pupils and teachers commented positively on their experiences within the questionnaire, focus groups, teacher observations and teacher interviews. A selection of quotes below highlights the pedagogies in action and demonstrates the impact that these had.

6.6.1 Use of Democratic Approaches

Many pupils commented positively on the impact of democratic approaches used within the intervention, both in the post-unit survey and in the focus groups.

“I really liked it because it was different to normal PE lessons and more fun. We had to get into our own groups and choose which activities we could do”
(Katerina, CrossFit/Kickboxing, Post Unit Questionnaire)

“So having the opportunity to like basically create our own lesson, in a way, it was better, because in normal PE it's not, you just get given a task like to do”
(Lee, CrossFit/Kickboxing, Focus Group 2)

“I found that [freedom] more appealing than the usual teaching approach, because it, um, made me... 'Cause sometimes in PE we do quite easy stuff and quite hard stuff, but we could choose what level we wanted to be at here, so it helped us, like, progress faster than in normal PE lessons” (Abdul, Parkour, Focus Group 2)

The data above is representative of the volume of comments received from pupils regarding the use of democratic approaches. A strong theme was drawn from the data: the use of democratic approaches (pupil choice and autonomy) had the most significant impact on pupils' engagement and enjoyment of the intervention lessons. This is not surprising, given that previous work in the area supports the use of autonomy-supportive environments to increase pupil enjoyment of their lessons (Hemingway et al., 2023; Lewis, 2014; Mitchell et al., 2015). In a similar vein to this previous work, the pupil quotes from the data reveal an appreciation for autonomy and choice in their lessons, underscoring the significance of democratic approaches. Students consistently expressed that having the freedom to form their own groups and select activities (even within a teacher-created framework) made their

lessons more enjoyable and engaging, distinguishing these experiences from their traditional PE classes, as Mohammed outlines below.

“The sort of teaching style and how it was taught, rather than, 'This is the way to do it, you can only do it this way,' didn't, like, suit me as well as the par... The way that we were taught in parkour, like, 'You can do this, you can adapt it to yourself.' And so it gave you more, er, opinions to learn, learn how to do it, but also learn it, like, was within yourself as well. (Mohammed, Parkour, Focus Group 2)

Katerina's enthusiasm for choosing activities vividly illustrates this sense of autonomy. Lee highlighted the enhanced enjoyment and engagement that came from being able to create his own lessons and set personal challenges, emphasising the motivational impact of having control over their learning aligning with much of the work in MPE (choice/democratic approaches and SDT (autonomy)).

Moreover, the ability to tailor the difficulty of tasks to personal skill levels was a recurring theme closely linked to feelings of competence (SDT) and challenge (MPE). Abdul and Mohammed noted that this flexibility allowed for faster progress and a more personalised learning experience. Similarly, below, you can see how Liz and Thomas valued the opportunity to set their own performance standards, which helped them feel more capable of improvement and mastery.

“When you're in Parkour, you could set your own level, so you don't have to do it to the standard that everyone else is doing it.” (Liz, Parkour, Focus Group 3)

“Having complete freedom to find the exact spot, er, where you fit in, er, I think really helped, because then you can then, you feel like you can, you're more able to sort of change it and, erm, improve it from there” (Thomas, Parkour, Focus Group 4)

Rob (teacher-observer) also provided insight into the use of democratic approaches in his interviews and observations.

“In terms of how it was run, in terms of how you started with teacher-led, and then giving the reins, well, handing over the reins to them a little bit, and then getting them to plan, I think that whole process worked really well” (Rob, CrossFit/Kickboxing, Teacher Interview)

“I was going to mention choice to be fair. I think that's - I think that was one of the - well, yeah, definitely one of the, erm, favourites for them as well, because

they, like you said, they can choose who they're with; erm, they can choose the activity that they want to do, erm, albeit that you were structured it, but they still think they have that autonomy, they still think they have that choice. So that automatically makes them feel like they, erm, they have a choice, so they can engage in it" (Rob, CrossFit/Kickboxing, Teacher Interview)

"Lots of pupil autonomy within the 4 phases of the lesson provided by Jordan, within each phase pupils had freedom to meet the task requirements however they saw fit. Groups were pupil selected which helped pupils feel confident and safe. Lots of opportunity to choose content that suited the purpose of each phase and called upon previous learning. Also, opportunity to select different roles within their group - coach/performer/timer etc." (Rob, CrossFit/Kickboxing, Lesson Observation 7)

Teacher insights, like those from Rob, affirmed that gradually transferring responsibility to students not only worked well but also enhanced the learning process, supporting the idea that democratic approaches foster a more meaningful and effective learning environment. Collectively, the data illustrates that providing pupils with autonomy and choice is crucial for creating an engaging and meaningful PE experience, aligning with the principles of democratic approaches highlighted within the MPE literature (Fletcher & Ní Chróinín, 2021; Fletcher et al., 2021) and advocated within much of the SDT literature within PE (Ahmadi et al., 2023; Vasconcellos et al., 2019; White et al., 2021).

Poppy echoed Rob's points in her interview and observations.

"I really enjoyed it...the independence that you gave them, seeing how that worked, 'cause I think that was really interesting...I think it was perfect. I think they needed the information to be able to go and understand what parkour was, but they also needed the freedom to kind of explore and experiment and keep trying things... that's what they respond to the most" (Poppy, Parkour, Teacher Interview)

"Lots of creativity and independence today with the video task, pupils had lots of freedom to create their own courses, only limited by the equipment allocated to each group. They also had choice over what parkour movements they wanted to incorporate into their runs. Safety the only real constraint placed upon the pupils. It has been good to see how the pupils have responded to the greater freedom in the unit with this being a large positive outcome from an observers perspective." (Poppy, Parkour, Lesson Observation 6)

The teacher interviews and lesson observations underscore the necessity for teachers to fully embrace autonomy-supportive teaching methods. These methods, according to the observing teachers, significantly improved pupil enjoyment, particularly in the context of democratic

pedagogies advocated in MPE. Poppy highlights that when students are given choices, they feel responsible for their learning, which enhances their engagement and investment in the activities. This autonomy fosters a sense of ownership and directly impacts their learning experience. Rob emphasises that giving students the freedom to explore and experiment is an effective tool, especially when structured appropriately. This autonomy allows students to improve and showcase their progress, as seen when they designed their own workouts (WODs) in CrossFit/Kickboxing, which was particularly beneficial for weaker pupils. The ability to choose their partners and activities, even within a structured framework, further increases their sense of autonomy and engagement. This echoed previous findings from Vasily (2021), who acknowledged the significant impact democratic pedagogies had on pupil engagement within his teaching of various activities, utilising a range of democratic approaches that embraced pupil voice and choice. In a similar vein, the feedback from the teachers here provides further support to findings from Cardiff et al. (2023), who acknowledged the importance of creating opportunities for pupils to influence their own learning.

Lesson observations by Jess and Rob reinforce these findings, noting that creativity and independence in tasks, such as video projects and parkour courses, led to positive outcomes. The freedom to select movements, roles, and content within lessons provided students with confidence and safety, promoting active participation and enthusiasm. This autonomy not only allows students to meet task requirements in ways that suit their preferences but also encourages them to draw on previous learning and collaborate effectively within their groups.

6.6.2 Use of Goal Setting

Goal setting is another key pedagogy associated with MPE (Fletcher et al., 2021), and the teacher-researcher attempted to incorporate it into the unit delivery. The data extracts from pupils' evidence of the impact of this.

“But when we weren't working in groups, we had like individual things and there was lots of different levels and modifications and things.” (Jemima, Parkour, Focus Group 3)

“[the best bit of the parkour unit was...] I could work with friends to achieve goals set for myself and collaborate with others to improve certain skills and help others improve in areas they found more difficult (Millie, Parkour, Post-Unit Questionnaire)

“When we had the freedom to do, like, pick our own combinations and stuff, I kind of enjoyed it more though, because the, you get to set yourself, like, your own challenge and not someone else setting your challenge” (Courtney, CrossFit/Kickboxing, Focus Group 3)

The pupils did not mention goal setting widely, but the quotes from Jemima, Millie and Courtney should not be overlooked. The principle of goal setting involves teachers and students working together to set goals and agree on activities within a flexible curriculum ‘as close to the learners as possible’ (Ennis, 2017). Opportunities for pupils to set personalised goals and to reflect on their achievements are central to the identification of experiences as meaningful (Fletcher et al., 2021).

The quotes from the pupils emphasise the importance of goal setting and monitoring, demonstrating how these principles contribute to a more personalised and effective learning experience. Jemima appreciated the variety of levels and modifications available during individual tasks, which allowed her to set and achieve personal goals within parkour. This flexibility ensured that each student could work at an appropriate level, fostering a sense of accomplishment in line with the psychological need for competence. This is in agreement with previous work in this area that highlighted the need for competence (Greenleaf et al., 2009; Kerner et al., 2015).

Millie highlighted the dual benefits of goal setting and collaboration, noting that working with friends helped her achieve her own goals while also supporting others in improving their skills. This collaborative approach to goal setting not only enhanced individual progress but also built a supportive learning community.

Courtney liked to be able to set her own goals as they become more relevant and personalised than goals set for the whole class or larger groups. The ability to set optimally challenging goals was highlighted in previous work, specifically White et al.’s (2021) recent systematic review that distilled key findings from 34 qualitative SDT studies in PE settings. They concluded that individual challenges or team activities that are optimally challenging satisfy the need for competence and promote self-efficacy and autonomous motivation, a point reflected by Courtney. It also demonstrates a clear connection between the feature of “challenge” and the pedagogies of goal setting, highlighting the interconnected nature of the features and pedagogies of MPE.

The teacher-observers also commented on the use of goal setting within the intervention within their observations.

“Encouraged pupils to set their own goals for the tasks based on their confidence, competence and experience. Discussion at the start about what pupils want to gain from the unit in its entirety, not just related to parkour, but also understanding what a meaningful PE/PA experience might look like for them” (Goal Setting - Parkour Lesson Observation 1)

“Pupils provided with a goal based on developing technique in the kicks but also had the choice of setting their own goals in the WoD.” (Goal Setting – CrossFit/Kickboxing Lesson Observation 3)

Setting personalised individual goals was a crucial element in the observations above, and this aligns with a more inclusive approach. The setting of personalised goals has been shown to improve pupil motivation in previous studies centred on goal setting (Gerani et al., 2020), where using personalised goal setting seemed to make the lesson more enjoyable as students work at their own pace and do not feel pressure due to social comparison, this was very much evident in the data from pupils and observers. Similar findings have also been evident in work centred on MPE, such as Vasily et al. (2020), who, much like the intervention, allowed pupils to set their own goals within their cycling unit. It appears that the present study adds further support for the use of this (personalised) approach to goal setting.

Collectively, the data from pupils and teachers illustrates that goal setting and monitoring are crucial for creating meaningful and motivating PE experiences. By allowing students to set personalised goals and track their progress, educators can foster a sense of achievement and continuous improvement, making PE more engaging and effective for everyone.

6.6.3 Use of Reflection

Goal setting and reflection have been positioned as “bookend pedagogies of meaningfulness” (Fletcher & Ní Chróinín, 2022, p. 7). Engaging children in reflection allows them 'to articulate their personal preferences in ways that position PE as a shared and collective project' (Ní Chróinín & Fletcher, 2023, p. 9). According to Fletcher and Ní Chróinín (2022), reflective pedagogies, when combined with democratic pedagogies, can aid children in contemplating their movement values and preferences, empowering them to make decisions

that align with these preferences. With that in mind implementing these pedagogies was a key focus within the intervention units. Data from observations and teacher interviews supports the intentional use of these pedagogies, and the extracts below from the teachers' observations highlight these and the impact they perceived them to have.

“Pupils were encouraged to reflect after each circuit to self-assess how they had performed and how they felt during each progression of the task. Also reflection at the end of the lesson linked to the features of MPE and which ones they valued the most - pupils were asked to select their top two features using a tally system on the board which they enjoyed but also encouraged them to think more deeply about their experience.” (Poppy, Parkour Lesson Observation 1)

“Discussions of previous skills and games at the start of the lesson as a reminder. Encouraged pupils to reflect on the features of MPE on the board at the end of the lesson and how this lesson may have allowed greater focus on certain features (social, choice).” (Rob, CrossFit/Kickboxing Lesson Observation 6)

The commentary from Poppy and Rob demonstrated how the teacher-researcher attempted to incorporate reflection within the lessons. These often used the features of MPE as a stimulus or focus for the reflection; this typically involved dialogue between peers and, for some pupils, discussion with the wider group or the teacher. During the teacher interview with Poppy, she commented on how the pupils responded to the reflective elements, which were a new practice to the pupils (i.e. they were not widely used in their normal PE lessons).

“I think they responded to the, like reflective practice well...I think probably the goal setting can sometimes go a little bit amiss, maybe because they think it would take too much time to set a goal for themselves, or maybe having that understanding of like, what kind of goal did they want to set for themselves... but the reflective stuff was I think really good throughout... I think it opened up a lot of conversations” (Poppy, Parkour Unit, Teacher Interview)

Most important in terms of reflection were the comments from pupil showing that they had given the experiences in the units and PE more generally some considered thought, demonstrating how the reflective processes allowed them to gain a greater understanding of their experiences and preferences.

“I don't really like it when we do - it's like something that either, like, isn't useful to us outside of school. Like, for example, erm, last term I think - actually, not last term. Ages ago, but we did dance and I j-, I just don't think it should be such a big part of winter PE because I don't think many people actually like doing it” (Grace, Parkour, Focus Group 2)

“It'd be memorable because when you have, like, when you don't have as much fun, you don't really, like, have it as a memory because you didn't enjoy yourself. But when you're with your friends, like, the choice, you kind of, it makes it more, like, fun for you and, like, everybody else.” (Courtney, CrossFit/Kickboxing, Focus Group 2)

From the perspective of the teacher-researcher, it was pleasing to hear the pupils using reflection to make greater sense of their experiences and build a deeper understanding of their relationship with movement, a point advocated in much of the MPE pedagogy literature (Fletcher et al., 2021; Fletcher & Ní Chróinín, 2021). Courtney's insight that enjoyable and memorable experiences are often tied to social interactions and choices demonstrates how reflection can enhance the understanding of what makes PE meaningful. Grace's critique of activities that seem irrelevant outside of school reflects the importance of connecting PE to students' interests and real-life applications, connecting well with Quennerstedt (2019), who acknowledges the transformative power of reflection to make sense of experiences and shape future engagement.

Some pupils also expressed a desire for more collaborative and personalised reflections with the teacher, as outlined by the extract from Thomas below.

“[The one thing I would change about PE is] perhaps the teacher (when walking around and inspecting a group's work) could maybe take time to individually ask about their opinions and current experience.” (Thomas, Parkour, Post-Unit Questionnaire)

Thomas's suggestion for teachers to individually ask students about their opinions and experiences highlights the importance of reflective dialogue in understanding personal experiences and improving the curriculum (also showing some overlap with democratic approaches). This collaborative reflective practice could help students articulate their thoughts and feelings, leading to a more tailored and effective learning environment.

The narratives above connect well with previous work on the value of reflection, with Standal (2015) suggesting reflection is a meaning-making process, moving ‘the learner from one experience to the next’ (p. 110) and helping learners to develop a deeper understanding of their experience. In a similar manner, O’Connor (2019) involved students in guided reflection about the value of particular movement experiences that allowed them to make greater sense of their experiences.

In summary, these quotes illustrate that reflection allows pupils to gain a deeper understanding of their PE experiences, recognise what they find meaningful, and articulate their needs and preferences. This reflective practice is essential for pupils to gain a greater sense of what they find meaningful and also what they might learn from experiences that may be perceived as negative. However, the process of reflection was not always easy, Fletcher et al. (2021, p.14) suggested that:

“Based on the centrality of reflection in order to understand and identify ways students make meaning and experience meaningfulness, we feel it is worth sacrificing some time for physical activity in a PE lesson in order to embed reflective processes.”

However, incorporating reflections within lessons was, at times, quite challenging, as revealed in some of the lesson reflection content in section 5.8.

6.7 Committing to Meaningful Physical Education

MPE has sometimes been mistakenly referred to as “just good teaching” (see Beckey, 2023). What moves MPE from “just good teaching” to a priority of meaningfulness is the intention behind it. The evidence shared from the data here (as well as much of the information referred to earlier in the chapter) demonstrates this commitment. Beni (2021) discusses this as “committing to the idea of MPE”, using the features and pedagogies as a priority filter for pedagogical decision-making. This was further evidenced within the intervention in the reflections below.

“I was then able to stand back and observe the pupils working on the challenge. This was really valuable, observing, noticing, and discerning responses and reactions. Just spending 3 minutes letting them get on with no interventions (other than a few reminders to spot the next runner). I don’t think teachers do this enough sometimes, we are often too keen to get and correct stuff, but I resisted the temptation and let them explore” (Parkour Unit, Teaching Reflection 3)

“Once this had settled, I took a moment to step back and just watch. I don’t think some teachers do this enough; let the first few minutes play out and see what happens; my priority filter here was the features of meaningful PE. Which features could I see in different groups or individuals? Where might I need to intervene to allow access to different features? My traditional approach here might be to look for errors in technique, but my commitment to MPE offered a different lens.” (Kickboxing/CrossFit Unit, Teaching Reflection 2)

The reflections highlight a solid commitment to the principles of MPE, using these principles as a central driver for in-lesson decision-making (as well as in planning identified earlier in the chapter). In the parkour unit, the teacher-researcher consciously decides to step back and observe the students working on a challenge without immediate intervention. This approach allows the teacher to notice and understand the students' responses and reactions in a natural setting. By resisting the urge to correct and instead letting students explore, the teacher provides space for autonomous learning and self-discovery, which are core tenets of MPE.

In the kickboxing/CrossFit Unit, the teacher again emphasises the importance of observation, noting that stepping back in the initial moments of activity allows for a better understanding of how students engage with the features of MPE. Rather than focusing on technical errors, the teacher-researcher used this time to identify which elements of MPE are visible in different groups or individuals and consider where intervention might be necessary to enhance access to these features. This reflective practice indicates an intentional shift from traditional teaching methods to a more student-centred approach, prioritizing the meaningful aspects of PE over mere technical perfection aligning with the existing literature in this area that highlights a commitment to MPE, moving beyond simply “good teaching” (Beckey, 2023; Beni, 2021).

6.8 - Grappling with Meaningful Pedagogy

Despite the teacher-researchers' good intentions and the approach's often fruitful outcomes, the shift to a focus on meaningfulness was not always easy. The extract below exemplifies this.

“I wasn’t able to use many democratic pedagogies today, this is ok, it is not always appropriate, and the nature of this lesson (new group, new teacher, new activity) meant that more elements needed to be teacher-led. This highlights an important point, being democratic for the sake of being democratic is not pupil-centred, I used a lot of practice style today because that benefitted the pupils best in this scenario.” (Teacher Reflection 1 – CrossFit/Kickboxing)

One significant issue is the balance between democratic pedagogies and the need for teacher-led instruction, especially in new or unfamiliar contexts. The teacher-researcher reflects on a lesson where democratic methods were limited due to the newness of the group, activity, and teacher-student relationship. This indicates that while democratic approaches are valuable,

they are not always appropriate, especially when students need more structure and guidance. This reflects the nuanced understanding that being democratic for its own sake is not inherently pupil-centred; the approach must be adapted to fit the needs of the students in each specific context. This demonstrates an element of contextual awareness and care from the teacher's perspective, arguably showcasing elements of relatedness highlighted in the SDT work (Ahmadi et al., 2023; White et al., 2021) and thus preventing the absent or chaotic teaching approaches highlighted earlier in the chapter (Aelterman et al., 2019)

As a teacher-researcher who participated in each school for only one unit, my capacity to influence pupil choices was confined mainly to micro-level decisions. For instance, I could give students the autonomy to choose their partners, select certain in-lesson content, determine the intensity of their exercise, or decide how to navigate a parkour course. These micro-choices empowered students within the scope of each lesson, fostering a sense of ownership and engagement in their learning process.

However, my ability to impact macro-level choices—those more significant, systemic decisions that significantly affect students' overall PE experience—was limited. I had no control over important elements identified in previous literature on student voice and choice, such as the PE kit policies (Mitchell et al., 2013; Mills & Cooling, 2019), the overarching curriculum design (Banville et al., 2021; Chen, 2015), or the protocols and policies surrounding changing procedures (Sammon & Sullivan, 2024). These broader areas of democratic approaches are crucial in shaping a fully inclusive and meaningful environment but require a more sustained and comprehensive approach to address those that were beyond the researcher's influence but were raised by pupils.

“I’m not fussed [on PE] because I don’t like the uniform” (Sarah, CrossFit/Kickboxing, Focus Group 3)

“[The one thing I would change about PE is...] when we get changed, as in the mornings, it is very cold because we get changed in a block that is outside” (Jason, CrossFit/Kickboxing, Pre-Unit Questionnaire)

“I wish we got to [come to school in PE kit] because during COVID everybody got to, got to come to school in their PE kit and that would be so much easier” (Eliza, Parkour Unit, Focus Group 3)

“[The one thing I would change about PE is...] more variety in sports and activities Like golf and swimming instead of football and rugby” (Luke, CrossFit/Kickboxing, Pre-Unit Questionnaire)

The potential impact of these macro-level democratic approaches on pupil engagement and satisfaction in PE remains an area ripe for further exploration. Understanding how changes in curriculum design (further explored in the subsequent chapter), PE kit regulations, and changing policies could enhance or hinder the meaningfulness of PE for students would provide valuable insights. Therefore, while my influence was confined to enhancing micro choices within individual lessons, a broader investigation into these larger systemic changes is essential for fully realising the principles of MPE.

Goal setting and reflection were other aspects of meaningful pedagogy that were not always easy to fully integrate, as evidenced in the reflections and the extract from Poppy's interview below.

"I also need to build in some personal goal setting, the goals so far have been largely set by me and have been quite task-based (show this... etc). I will spend some time at the beginning of the next lesson asking pupils to set themselves some goals based on the way they want to work, and the features they want to connect with. We'll see how this goes as it requires a bit of deep thinking" (Parkour, Teaching Reflection 2)

"I found making time for goal setting and reflection difficult within the limitations of 1 hour lessons, and concluded that these may not be needed in every lesson or could be done more informally, during activities with 1-2-1 chats and small group work. I found engaging in 1-2-1 and small group chats more beneficial than larger group discussions for bringing up MPE elements and these discussions were typically more impactful." (Parkour, Teaching Reflection 5)

"I think probably the goal setting can sometimes go a little bit amiss, maybe because they think it would take too much time to set a goal for themselves, or maybe having that understanding of like, what kind of goal did they want to set for themselves, because they probably at the start didn't have any idea about what was going to happen, so that's really hard to set a goal" (Poppy, Parkour Unit, Teacher Interview)

The teacher-researcher reflections also highlight the challenges of incorporating personal goal setting and reflection within the constraints of lesson time, with the CrossFit/Kickboxing lessons being 50 minutes in length, including changing, learning time was typically less than 40 minutes, the parkour lessons were 60-80 minutes, so the time issue had less impact. A point that has also been highlighted in recent work implementing MPE (Beni et al., 2022) where the loss of activity time caused angst among some teachers. Noting the recommendations from Fletcher et al. (2021) and Bjørke & Quennerstedt (2023) on the importance of reflection and the need to sacrifice some physical activity time for these processes to occur, attempts were made throughout the unit to engage pupils in meaningful

reflection. This could have perhaps been better served or added to with out-of-class reflection methods such as PE diaries or homework tasks that have been utilised in previous work (Ní Chróinín et al., 2023), however, given the influence of the teacher-researcher in a new context, these were not deemed feasible at the time of delivery.

The attempt to integrate goal setting into the parkour lessons faced obstacles, as students were unaccustomed to setting personal goals and required more guidance and time to think deeply about their objectives. This suggests that while goal setting is a key component of MPE, its implementation requires careful planning on how this can be managed and integrated into lesson activities with individuals and small groups, as well as being a separate whole group task. Poppy's interview quote reinforces the difficulty students sometimes face in setting meaningful goals, especially when they are unfamiliar with the new approach and unsure of what to expect. This uncertainty can hinder their ability to set meaningful goals, highlighting the need for initial guidance and support as students transition to this new way of learning. This point is echoed in recent work from Cardiff et al. (2024), who acknowledged the need to “train” pupils in the goal setting and reflection process to encourage more significant thought and depth in these areas that may lead to pupils gaining a better understanding of what they find meaningful.

Although there was much success with the MPE approach, implementing it to new groups who were not always used to these types of approaches did present several challenges, as highlighted by the various data sources. The transition from traditional, teacher-led methods to a more autonomous, pupil-centred environment can be difficult for both teachers and students. Previous work has highlighted the complex nature of change in PE practice, where sustained pedagogical transformation can be challenging (Durden-Myers, 2020). Consequently, reshaping and adapting practices in PE is described as a complex endeavour (Armour & Yelling, 2004).

In conclusion, the teacher-researcher reflections and teacher interview data reveal that while the principles of MPE are beneficial, their implementation can sometimes be challenging. Teachers may need to balance democratic and teacher-led methods, find effective ways to integrate goal setting and reflection within time constraints and provide sufficient support to help students adapt to new approaches. These insights underscore the importance of flexibility and adaptability in teaching practices to ensure that MPE can be effectively incorporated and genuinely enhance student learning and engagement.

6.9 Chapter Summary

The data and subsequent analysis within this chapter have added additional support to the MPE approach. The pupil insights suggest they found a strong connection with the pre-existing features of MPE (social interaction, challenge, fun, motor competence, personal relevance and delight), with a particular value placed on social interaction and fun. Whilst a few pupils mentioned the possibility of other features, such as health and creativity, it was felt that these could be connected to the existing feature of personal relevance, where these elements are incorporated to help amplify this feature. The use of democratic pedagogies allowed pupils to tailor their learning experiences and access the features they desired the most. The elements of choice and autonomy played a pivotal role in pupils shaping their own experience within the units under the guidance of the teacher-researcher, who played a largely facilitative role. Whilst the goal setting and reflection elements of the approach were sometimes problematic to implement, the value of these was recognised by all stakeholders (teacher-researcher, observing teachers and pupils).

The implementation of the approach in UK secondary schools with older pupils, as compared to much of the existing work in this area, offers new insight into the flexibility and applicability of the MPE approach. The importance of a full commitment to the approach is emphasised where meaningfulness is the vision for the subject shared by both teachers and pupils, and the features and pedagogies become the priority filter for decision-making at all stages of the learning process (before, during and after lessons).

Chapter Seven – The Potential for Lifestyle Sports in Physical Education

Within the literature review (Chapter 2), LS were identified as a largely unexplored area within PE and one that potentially offers a new strategy to engage young people in a more meaningful version of PE (Griggs & Fleet, 2021; Leeder & Beaumont, 2021; Wintle, 2022). Considering these suggestions, this chapter will synthesise the quantitative and qualitative data from the action research to expand on the recent work in this area. The data within this chapter directly relates to research aim two, which intends to evaluate the effectiveness of the lifestyle activities intervention on the creation of potentially meaningful experiences for young people.

7.1 Quantitative Results

The quantitative results from the questionnaire data provide a suitable starting point to begin the discussion on the potential of LS. The data is directly connected to the work on meaningful PE, which, based on the previous chapter, provides a suitable lens to analyse the pupil's experiences. Figures 6.1 and 6.2, and tables 6.1, 6.2 and 6.3 below show an analysis of the features, pedagogies and overall meaning of the two units (post-intervention) compared against the same data from normal PE (pre-intervention).

7.1.2 - Quantitative Analysis CrossFit/Kickboxing Unit

Figure 7.1 and Table 7.1 show the quantitative results from the questionnaire for the CrossFit/kickboxing unit comparing pre (normal PE) and post (the LS sports unit) intervention scores.

Figure 7.1 – CrossFit/Kickboxing Pre vs Post-Intervention Analysis

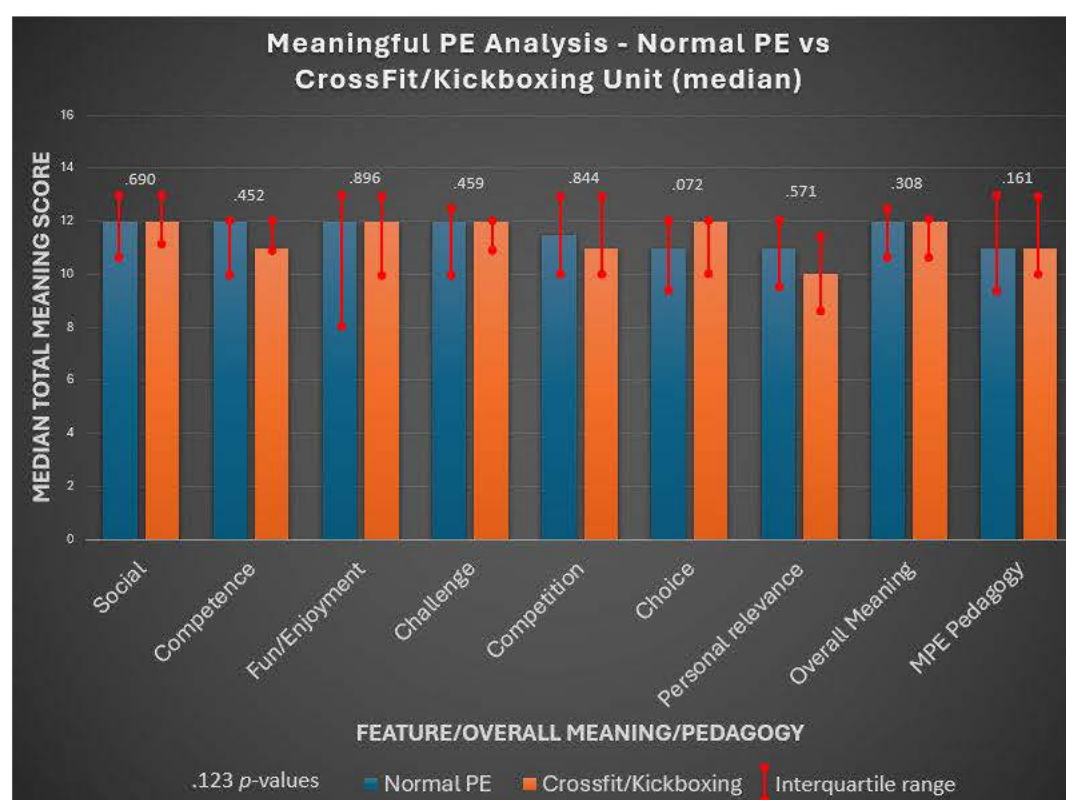


Table 7.1 – CrossFit/Kickboxing Pre vs Post-Intervention Analysis

Feature/Pedagogy/ Overall Meaning	Median Normal PE Overall score (IQR)	Median CrossFit/ Kickboxing Overall score (IQR)	Wilcoxon (statistically significant $p = < 0.05^*$)
Social	12 (2.5)	12 (2.0)	.69
Competence	12 (2.0)	11 (1.0)	.452
Fun/Enjoyment	12 (5.0)	12 (3.0)	.896
Challenge	12 (2.5)	12 (1.0)	.459
Competition	11.5 (3.0)	11 (3.0)	.844
Choice	11 (2.5)	12 (2.0)	.072
Personal relevance	11 (2.5)	10 (3.0)	.571
Overall Meaning	12 (2.0)	12 (1.5)	.308
MPE Pedagogy	11 (4.0)	11 (3.0)	.161

(max score 15 = 3 x strongly agree)

The overarching headline for the data above is that none of the features, pedagogies or overall meaning had a statistically significant difference between the pre-unit (normal PE) data and the post-unit (CrossFit/Kickboxing) data. The lower IQR within nearly all features of the intervention data set suggests that the data points within the middle 50% of the distribution

are relatively consistent and clustered around the median, perhaps showing a less extreme experience across the sample compared to normal PE. However, when analysing individual responses in greater depth, it became clear that within the sample, there were some strong positive responses to the intervention. However, these responses are hidden (or smoothed) in the final numerical outputs when the complete data set is analysed. Table 7.2 shows the number of pupils who reported higher scores across each of the questionnaire categories to give an overview of those pupils within the data; this is also split by sex; as shown, the intervention generated more of a response for female pupils with a shift towards statistical significance in nearly all areas with choice and MPE pedagogy being statistically significant (and social being very close) for the females in the unit.

Table 7.2 – Frequency of Pupils Reporting Positive Changes in Scores Pre vs Post-Intervention

Feature/Pedagogy/ Overall Meaning	Number of pupils who reported higher scores (out of 27 pupils)	Number of Males with positive change (out of 12)	Number of Females with positive change (out of 15)	Female Only Wilcoxon (statistically significant $p =$ $< 0.05^*$) Pre vs Post
Social	10	2	8	.051
Competence	6	1	5	.131
Fun/Enjoyment	11	2	9	.198
Challenge	13	5	8	.098
Competition	12	5	7	.195
Choice	14	4	10	.003*
Personal Relevance	10	3	7	.200
Overall Meaning	6	1	5	.333
MPE Pedagogy	16	5	11	.003*

Of the females who reported positive differences across the nine categories, ten reported increases in five or more areas; for comparison, only one male reported a change in more than five categories. This highlights a potentially exciting finding that the impact of the unit seemed to be more significant for female students than male students when compared to their usual PE lessons. The shift in significance values also speaks to this point. Given the volume of research that suggests we need to improve experiences for girls in PE (Cameron & Humbert, 2019; Casey et al., 2014; Yoon et al., 2023; Youth Sport Trust, 2023), this finding is worthy of note. The seemingly positive impact on the females within the group further highlights the need to consider individual preferences in planning PE experiences. However, we must be cautious when prioritising one group over another, and that should be considered

in the macro planning across a year or between years. The subsequent analyses in this chapter will shed further light on this area as we begin to unpick some of the qualitative data that can offer some further insight.

7.1.3 - Quantitative Analysis Parkour Unit

Figure 7.2 and Table 7.3 show the quantitative results from the questionnaire for the Parkour unit comparing pre (normal PE) and post (the LS sports unit) intervention scores.

Figure 7.2 – Parkour Pre vs Post-Intervention Analysis

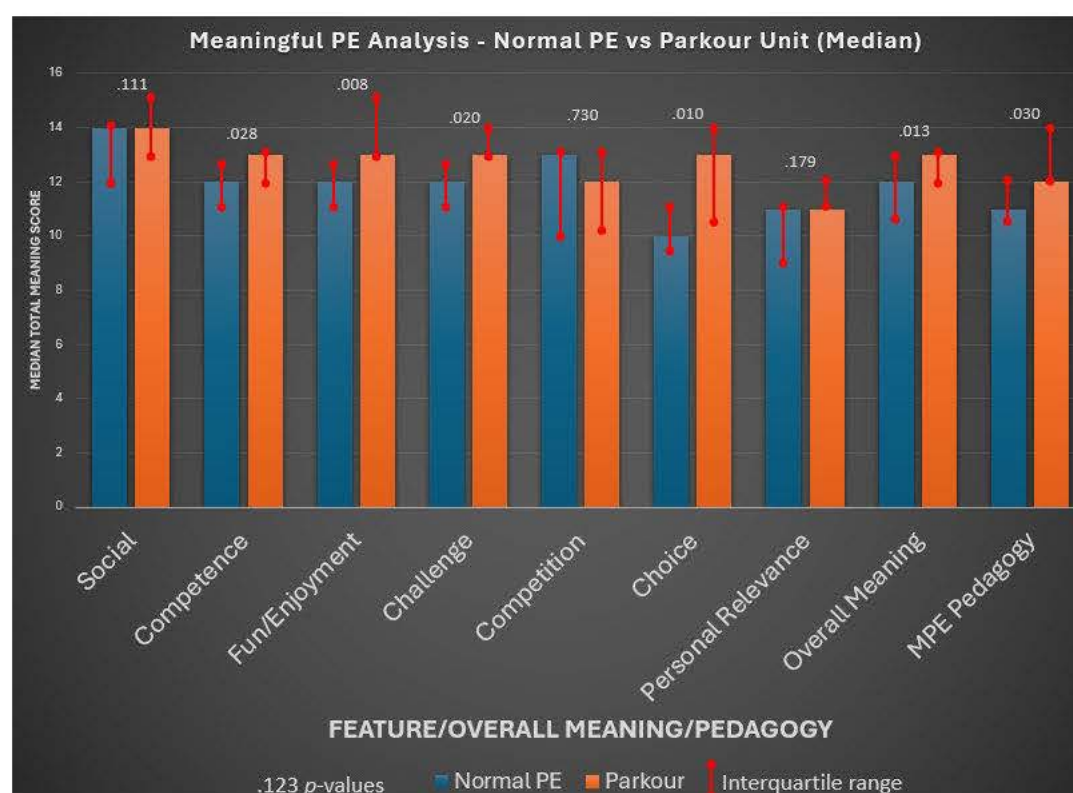


Table 7.3 – Parkour Pre vs Post-Intervention Analysis

Feature/Pedagogy/ Overall Meaning	Median Normal PE Overall Score (IQR)	Median Parkour Unit Overall Score (IQR)	Wilcoxon (statistically significant $p = < 0.05^*$)
Social	14 (2.0)	14 (2.0)	.111
Competence	12 (1.5)	13 (1.0)	.028*
Fun/Enjoyment	12 (1.5)	13 (2.0)	.008*
Challenge	12 (1.5)	13 (1.0)	.02*
Competition	13 (3.0)	12 (2.75)	.73
Choice	10 (1.5)	13 (1.75)	.01*
Personal Relevance	11 (2.0)	11 (1.0)	.179
Overall Meaning	12 (2.5)	13 (1.0)	.013*

MPE Pedagogy	11 (2.0)	12 (2.0)	.03*
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(max score 15 = 3 x strongly agree)

The data from the parkour unit provides an overall picture of the positive impact of the intervention, with statistically significant increases in six of the nine areas of the meaningful PE questionnaire (competence, fun/enjoyment, challenge, choice, overall meaning and MPE pedagogy). Given that LS typically reject formal competition (Beaumont & Warburton, 2020; Wintle, 2022) and that formal competition was not planned in the unit, it is unsurprising that this element of the questionnaire experienced a reduction in the median score when comparing pre- and post-intervention data. It may also speak to the nature of the rest of the PE curriculum, which is heavily linked with competitive sports, such as rugby, netball, football and athletics, a point that has often been criticised in the literature where a more balanced curriculum has been advocated (Hemingway et al., 2023; White et al., 2021; Whitehead, 2021).

The comparison of interquartile ranges between the Normal PE and Parkour Unit conditions reveals meaningful shifts in the consistency of student responses. Several pedagogical features (including competence, challenge, personal relevance, and overall meaning) showed a noticeable decrease in IQR after the Parkour intervention. This suggests that students' perceptions of these aspects became more aligned and consistent, indicating a shared and coherent experience during the parkour unit. Notably, many of these features also showed statistically significant improvements in their median scores, reinforcing the idea that the intervention not only increased consistency but also had a positively perceived impact.

In contrast, a few features, such as fun/enjoyment and choice, exhibited a slight increase in IQR, suggesting that while overall scores improved, students had a wider range of experiences or opinions about these elements. This could reflect more individualised responses to the novelty or flexibility offered by the parkour unit. In summary, the data indicate that the parkour unit contributed to both enhanced perceptions and greater consistency in key pedagogical areas. The most significant improvements were seen in how meaningful, challenging, and competence-building students found the experience. These shifts indicate the effectiveness of the parkour unit in creating a more universally engaging and impactful learning environment.

Research looking specifically at parkour within PE settings is available but not widespread. Some of the research advocates for the use of parkour rather than specifically testing its use (e.g., Vanluyten et al., 2023). Other elements of research analyse the use of parkour related to fitness elements (e.g., Dvorak et al., 2017; Fernández et al., 2022) with positive outcomes found. Most relevant to the findings within this study is the work of Grabowski and Thomsen (2015), who explored the use of parkour in PE in Scandinavia, gathering interview data from pupils and teachers who had delivered parkour in their schools. The findings here relate well to the quantitative results above, with the authors reporting positive engagement, particularly for those who would not engage positively in normal PE. Interestingly, within their intervention, an element of competition was added. However, the pupil feedback suggested this made the experience negative for some. The competition changed the pupil's focus from self-enhancement to a focus on winning, and the motivation for participation diminished. This provides further advocacy for leaving competitive elements to one side (as was the case in the intervention) in some activities (such as parkour) where the element of competition does not add to the experience or is seen as an integral part of the activity.

The lack of change in personal relevance within the parkour unit is interesting (the median for personal relevance also went down in the CrossFit/kickboxing unit), remembering that personal relevance focuses on pupils connecting their PE experiences with their wider lives (Beni et al., 2017). LS have been pitched as offering a greater level of personal relevance, given their surge in global popularity (Gilchrist & Wheaton, 2016; Griggs & Fleet, 2021), when PE has been criticised for lacking this relevance (Banville et al., 2021; Kirk, 2012; Sullivan, 2021). However, it appears that the new activities within this study were unfamiliar to the groups and therefore, many pupils had never taken part in these activities (and had very little/no awareness of them), making it harder for them (at this stage) to make those links to their lives beyond the school gates. Given that the activities within the intervention were chosen by the teacher-researcher and the staff at the schools, this is not wholly surprising, and it would be likely that personal relevance may increase if pupils were consulted on the activities, allowing elements of autonomy and choice that could impact personal relevance. This is something that will be explored further in the subsequent sections as we begin to analyse the qualitative data.

The following sections are drawn from a thematic analysis of the qualitative data and will add further insight into the quantitative results above. Sub-themes split them: ‘something different

– the search for novelty’, ‘personal relevance’ and ‘LS; negative or neutral views; blending the activity with the approach’ and finally, ‘potential improvements’.

7.2 - Something Different - The Search for Novelty

Data from the pupils, teachers and the researcher's reflections commented on the use of non-traditional activities within PE. When reflecting on the unit, within focus groups, pupils were initially asked to describe the unit they had experienced using a continuum of harmful–meaningless–meaningful and share an explanation for their rating.

“I would also put it more towards meaningful 'cause it was also really fun and that's kind of important when you do PE as well.” (Emily, Parkour, Focus Group 1)

“Probably the same. Near meaningful 'cause it was fun...and not something we'd normally do as well” (Alice, Parkour, Focus Group 1)

"I would say probably in the meaningful area. Because I was, erm, like, like ...and it's like..., it's like a fun new sport.” (Jason, CrossFit/Kickboxing, Focus Group 1)

“Erm, I would say meaningful because, erm, it's way better than PE” (Tim, CrossFit/Kickboxing, Focus Group 2)

The quotes above highlight views echoed by many pupils; they viewed the units as a meaningful experience. Given that we had spent time in lessons and within the focus groups exploring how we understand a meaningful experience, there can be a reasonable degree of confidence in this assessment. Given that for many young people, PE has been identified as harmful (García-González et al., 2019; Spencer-Cavaliere, 2012), perceived as unfavourable (Hemmingway et al., 2023), boring (Garn et al., 2017; Simonton & Garn, 2020) or demotivating (Aniszewski et al., 2019; Lewis, 2014), these findings show promise for the use of LS within PE.

The sense of excitement around a new activity was a key attraction for several pupils in the study; within both the parkour and CrossFit/Kickboxing units, pupils commented on the excitement generated by exposure to something they have little to no experience in.

“So it was, like, exciting to, like, get into something that I had, like, no knowledge of and I could just learn straight off... And, erm, exciting because generally because it was new and I hadn't done it much and also because it was challenging, I had, like, goals that I could try to achieve and I could, like, look forward to

lessons because, like, I, I was excited to learn new stuff and things.” (Alice, Parkour, Focus Group 1)

“I would recommend trying it because it's something new and exciting that you've never done before and it could broaden your skill range and open up new opportunities for you in what you might like.” (Emily, Parkour, Focus Group 1)

“Erm, I would say it's, like, new, and, like, entertaining. Just like new, fresh sport that you probably haven't learnt. It was enjoyable and fun to do through the lessons, and yeah.” (David, CrossFit/Kickboxing, Focus Group 1)

The sense of novelty and excitement experienced aligns well with previous research in this area. White et al. (2021) suggested that novelty and variety in the activities selected as part of the curriculum increased pupil's autonomous motivation. Chen (2015) also highlighted how a sense of novelty sparked pupils' situational interest in lessons. At a more profound level, González-Cutre et al. (2016) propose that novelty could be considered as another basic psychological need of humans and added to the three existing needs identified in self-determination theory. We have also seen how novelty has even been proposed as a new feature of MPE in recent work (Saiz-González et al., 2025), which the data here may support. Chen (1996) differentiates between two elements of situational interest: catching interest and holding interest. A point that was evident in the first teacher reflection from the parkour unit.

“I am sure that there was a degree of novelty at play in this first session, they hadn't done anything like this in the past, I wonder how long that will last?” (Parkour, Teacher-Researcher Reflection 1)

Chen (1996) highlights that catching interest is the student's perception of an activity's appealing characteristics that attract the student to take part in the activity at a given time. Holding interest is the perception of characteristics that have long-lasting retaining effects and maintain the student's involvement in the activity even after the initial “catching” (p. 425) interest has diminished. The activities in the units certainly caught pupils' interest; whether they would have a longer-lasting impact and hold their interest over an extended period is more challenging to tell from a short-term intervention. Caution should be exercised when looking for novelty, as the recent Ofsted (2023) research review on PE found that in some settings, the curriculum has significant breadth (a broad range of activities) but at the expense of depth (time spent on an activity). The curriculum design in this scenario does not allow pupils enough time to build knowledge and competence before switching to a new activity. The curriculum, therefore, provides pupils with brief experiences of a wide range of sports or

activities, but what pupils know and can show because of what they have been taught is often limited. There is, therefore, a balance to be struck between novelty and depth of learning that teachers and curriculum planners should be aware of.

Teachers also commented on the nature of the activities in their interviews and observations.

“They've not experienced it before, it's all new to everyone, they can have a new positive experience about that. So I think that's a really good way of embracing that. And also kids love new things and new sports” (Robert Teacher interview, CrossFit/Kickboxing)

“Enjoyment was evident throughout the lesson, largely due to the paired work and the ‘fun’ nature of the activity itself.” (Robert, CrossFit/Kickboxing, Observation 4)

“Yeah, again, I think just them, them chatting about it, them laughing, and also, I think it's just that they were fully engaged throughout. They, erm, they just kept working at it, kept trying at it. It never got to a point where they were like, yeah, I'm done...and I think that, that's what shows that they really enjoyed it. They just wanted to keep going.” (Poppy, Teacher Interview, Parkour)

Both teachers emphasised the novel and engaging nature of the activities. Robert also highlighted the inclusivity of the CrossFit/kickboxing unit, noting that it was accessible to all pupils regardless of their ability or previous experiences in the activity. He observed that the activities were fun for the pupils, with a significant level of engagement, an area that has been problematic in past research (Mitchell et al., 2015). Similarly, Poppy reflected on the parkour intervention, highlighting the enthusiastic response from students. She noted that the students were consistently engaged, chatting and laughing throughout the sessions. She observed that the students were so absorbed in the activity that they did not want to stop, which she interpreted as a clear indication of their enjoyment, given that enjoyment/fun is a key feature of MPE (Beni et al., 2017) this is a significant positive outcome of the intervention. These reflections underscore the positive impact of these novel activities on student engagement and enjoyment in PE.

Linking to work connected to meaningful PE in a recent conference presentation Saiz-González and Fernandez-Rio (2024) that novelty could potentially be a new feature of MPE after conducting research with university students reflecting on their PE experiences, their subsequent paper (Saiz-González et al., 2025) reinforced this notion. Novelty is not included in the original features (Beni et al., 2017). However, the data here seems to suggest that it could be an important factor for some pupils; whether this could be included in the pre-

existing feature of fun is perhaps another potential argument that could be revisited once more widespread data is available.

Another factor drawn from the analysis was the way LS could potentially level the playing field within PE because, for many pupils, they were new activities with which most had limited or no experience. This is in opposition to current practice in many schools, where traditional activities (e.g., football, hockey) tend to favour those pupils who have a greater depth of experience.

“Like, everyone else who was doing parkour had also never done it before. So I think that helped, not being, like, worse than everyone else.” (Evie, Parkour, Focus Group 1)

“So it was, like, exciting to, like, get into something that I had, like, no knowledge of and I could just learn straight off... And, erm, exciting because generally because it was new and I hadn't done it much” (Alice, Parkour, Focus Group 1)

“I would say [it was] interesting because of the, like kickboxing moves are new to people, and everybody wanted to look and learn it. So that's why I think it would be interesting.” (Rylan, CrossFit/Kickboxing, Focus Group 1)

Teachers agreed that the activity's new nature made it more accessible for some pupils, as highlighted by Robert below.

“It levels the playing field in that sense whereby they've, they've not experienced it before, it's all new to everyone, erm, they can have a, a new positive experience about that. Erm, so I think that's, that's a really good, good way of, of, of embracing that. Erm, and also kids love new things and new sports...they want to try it, they want to explore it” (Robert Teacher interview, CrossFit/Kickboxing)

This echoes the points raised in previous work from McNamee and Timken (2017), who highlighted that the uniqueness of these types of activities helped level the playing field, break the monotony, infuse energy, and provide less competitive children with opportunities to shine. The change in social dynamics within these activities allows a redistribution of power compared to the hierarchies evident in many traditional, often competitive, activities. In addition, Beaumont and Warburton (2020) proposed that LS may offer something for traditional hard-to-engage groups, such as lower-ability pupils and girls, a point we saw evident in some of the quantitative results from the CrossFit/kickboxing unit.

7.2.1 – Moving Away from Traditional Competitive Activities

Pupils within the study spoke about their experiences of the units in relation to their normal PE curriculum, and the comparisons to traditional activities and often competition provided some insightful analysis.

“I would say [it was] meaningful, because it, it was better than just doing normal PE all the time. It was a bit of a change. Because it, kickboxing isn't like a well-known sport or what we do in PE normally is, like football or rugby or something.” (Zane, CrossFit/Kickboxing, Focus Group 2)

“I'd probably put parkour [higher] compared to PE. It sometimes depends what PE it is, ... if it's in the winter and we're doing rugby, I'd put it a lot higher.” “Richard, Parkour Focus Group 4)

In a similar vein, Harry and Lucy highlight the fluid nature of parkour compared to traditional sports that are heavily technique-driven or rigid.

“I think also the, the parkour is a lot less, like, rigid, um, because sometimes in PE it's a bit like, 'This is what you're going to do and this is how you need to do it,' um, whereas in parkour there are lots of different ways of achieving the same thing.” (Harry, Parkour, Focus Group 2)

“Parkour, it's like you kind of, it's like it starts off like kind of easing you, just like you try and get over things. It's like, it's quite straightforward, whereas dance, you talk like a lot, and you have to kind of like perfect the skills, but Parkour is just, it's easy and it's fun, but then like you can expand and it's like a brilliant core skill to have.” Lucy, Parkour Focus Group 3)

The PE curriculum has often been criticised for relying heavily on traditional, usually competitive activities, specifically team games. Whitehead (2021) highlighted this point, arguing that PE should offer students experiences across a range of movement forms (one of three key principles of a physical literacy-informed approach). This should include adventure, aesthetic, competitive, fitness/health, and relational activities (see Table 2.2 for an overview of these). Parkour fits as a relational activity, whereas CrossFit/Kickboxing (in the form delivered in the unit) aligns with a fitness/health perspective. Banville et al. (2021) suggest that PE's narrow focus on competitive sports may not cater to all students and suggests that curricula should allow students to explore various forms of movement, informed by their own voices. The data here echoes that call and shows promise in how pupils received the units compared to their traditional curriculum.

Within the interviews, the observing teachers commented on the lack of compulsory competition within the units, which is often inherent in many traditional activities and PE lessons.

“Yeah, I think there's, there's a lot on competitive sports, isn't there, ... I definitely think this kind of non-competitive, erm, environment as such is, is good, and I think that it needs to - it can be used in, in terms of different sports, erm, definitely” (Robert, Teacher Interview, CrossFit/Kickboxing)

“Yeah, I mean, some don't, they don't take to, erm, what we would class as the traditional sports at all, they don't like them, they don't really want to do them, and I think doing something like that offers them a way of being physically active” (Poppy, Teacher Interview, Parkour)

“I saw was probably that intrinsic competition with themselves to kind of better what they were doing. I don't think it needed competition... I just don't think the activity or the stuff that they did lended itself for that competitive nature. I don't think it was required at all” (Poppy, Teacher Interview, Parkour)

One of the key features of LS is that they typically reject formal competition inherent in many traditional activities included in the PE curriculum (Gilchrist & Wheaton, 2016). Whilst competitive versions of some LS do exist (e.g. skateboarding, CrossFit, climbing), most participants in these sports are not involved in formal competition but instead take part for the inherent meaning they find in the activity (Poulson, 2016). Where competition was evident in the lessons, it was initiated by the pupils, under their terms, and often, the competition was not with other pupils but with themselves.

“I think I'm just looking at the boys, [names group members], they were loving it, they were going - and you saw the tempo or intensity levels increase with them, because they're used to being involved in that competition, they wanted to introduce a bit of competition to it, didn't they?” (Rob, Teacher Interview, CrossFit/Kickboxing)

“Largely intrinsic to keep pushing beyond personal boundaries through new techniques, height or speed. Some peer comparison and competition but that was only for those who chose to incorporate that (mostly the boys!).” (Poppy, Teacher Observation 3, Parkour)

The teacher-researcher was aware of this pupil-initiated competition and how it added meaning to the experience for some pupils; therefore, allowing the pupils to experiment with the use of competition was seen as beneficial.

“We have had no direct competition in the sessions but a few of the pupils liked competing with each other on some of the exercises (most reps in 30s) – just need to be careful here that technique is maintained – this pupil choice of competition is ok by me if it helps them be motivated and find meaning.” (Reflection 2, CrossFit/Kickboxing)

The use of competition in PE has been a divisive topic. The compulsory nature of PE means pupils do not choose to compete but are often forced to (Aggerholm et al., 2018). Within the

work on meaningful PE, competition was a subsection of the challenge feature, and Beni et al. (2017, p.302) concluded that “teachers carefully consider how competition is presented; students from research reviewed preferred emphasis to be placed on the challenge(s) inherent in the process of competing rather than on the outcome (that is, winning and losing)”. The use of competition within the units, via student choice and competition with oneself, appears to align well with this advice and allows pupils to use competition under their terms, aligning with the autonomy advocated for within the SDT literature (Ahmadi et al., 2023; Babic et al., 2014; Parker et al., 2020).

7.3 – Lifestyle Sports and Personal Relevance

Given that the quantitative results showed a drop in personal relevance when comparing the units to normal PE, it is worth looking at the qualitative data to see if this is reflected within that. Pupils within the parkour unit commented on the personal relevance of the activity.

“I got to learn something that I would probably use at some points, like, in real life and also something that I could, like, expand my knowledge with further... exciting, new and challenging because with new, I'd never done anything, like, parkour-related before” (Lorna, Parkour, Focus Group 2)

“I think it's a bit more, like, realistic of something you would do in the real world than say, like, gymnastics, 'cause gymnastics you're always using, kind of like, mats and springboards, whereas when we did, say, um, vaulting in parkour, it was all, like, kind of like, just off your own, kind of, ability rather than using other things, so it's a lot more like, yeah, applicable to real..” (Matt, Parkour Focus Group 2)

“Well, I really loved it because it's not something I've really done before, erm, exploring a space like that and finding, er, ways through it, and, er, it felt like a sport that really made sense, erm, just being able to sort of find the best ways and fastest ways to move through an environment. Erm, yeah, er, and it also felt, er, strenuous might be the wrong word, but, er, sort of, erm...challenging, challenging, yeah, challenging is perfect, yeah. Erm, in places, and I just really liked that.” (Theo, Parkour, Focus Group 4)

The quotes from pupils experiencing the parkour unit highlight how they perceived the activity as personally relevant, useful, and connected to their PA outside of school. Lorna appreciated learning something new and exciting that she could apply in real life, emphasising the novelty and practical relevance of parkour. Matt found parkour more realistic and applicable to everyday scenarios compared to traditional gymnastics, valuing the reliance on personal ability rather than equipment. Theo enjoyed the challenge of navigating spaces

efficiently, finding the activity both engaging and functional. Equally, pupils in the CrossFit/kickboxing unit echoed similar views.

“Like Harry said before, you can use it in real life situations, and it's like... And it's also like what Damien and Rylan said, it's like a fun new sport.” (Jason, CrossFit/Kickboxing Focus Group 1)

“Cause I've done it for a coupla years, I have, but like it was really fun to like, erm, [laughs] it was really fun to like, erm, do it again but with like, different people” (Lucy, CrossFit/Kickboxing, Focus Group 2)

“I would say meaningful because, like, I already do kickboxing out of school. So I already, yeah, I already like it, so yeah.” (Claire, CrossFit/Kickboxing, Focus Group 3)

Perhaps most notable in these examples is Lucy and Claire's direct link to participating in the activity in their own time. Fletcher et al. (2021) highlight this as the epitome of personal relevance, coupled with Jason's view that the activity was usable in real-life situations. This demonstrates the high level of personal relevance some of the pupils found in the activity, somewhat contradicting the overall quantitative results.

The teachers also commented on the level of personal relevance they could see in the activities through the interviews and observation data.

“I think where it brings that more enjoyment and probably, 'cause they view it as something that maybe they do more in their spare time” (Poppy, Teacher Interview, Parkour)

“Yeah, I think they'll probably all watch videos like, online and see it, so I think that's where it becomes a little bit more relevant than maybe other stuff they do” (Poppy, Teacher Interview, Parkour)

“Elements of fitness transferable into lots of different activities, some pupils participate in combat sports outside of school so for them there is a high degree of relevance and I think they enjoyed being able to do their hobby in school...Really good session, students fully engaged and enjoyed the content.” (Robert, CrossFit/Kickboxing, Observation 1)

Connecting effectively with youth culture is a big challenge for PE; it has often been criticised for being resistant to change (Kirk, 2012; Sullivan, 2021). Given the growth of LS (Gilchrist & Wheaton (2017) and more informal sport (O'Connor & Penney, 2023) options in society, it is important that PE keeps up with current trends and changes in participation habits (Beaumont & Warburton, 2020; Griggs & Fleet, 2021; Stidder, 2023). The data here from both pupils and teachers highlighted alignment with the calls from the literature to modernise

the menu of activities on offer in PE to better connect with the youth of today. Whilst the interventions were single exposures to new activities and relatively short in duration, the micro-expressions of personal relevance are a step in the right direction. To have a more significant impact on pupils' perceptions, more exposure over time is likely to be required to significantly impact longer-term behaviours.

7.3.1 – What's Next for the Pupils?

As part of the focus groups, pupils were asked how they might use their experiences to inform future choices of physical activity. Given that a key aim of PE is to promote further/ongoing involvement in physical activity, this is a crucial assessment of the effectiveness of the unit. Some key quotes from the pupils involved in both the parkour and CrossFit/Kickboxing units are outlined below.

“I don't think I'm ready yet to go, as Tim said, like grinding on rails and jumping from building to building. I think I'd need to do like, another kind of course thing first. But I would, I would enjoy - I would like to do another course thing I reckon.” (Ryan, Parkour Focus Group 4)

“Erm, going, like, outside with it because when we're in the hall, we've got, like, mats and protection from it but if we're actually outside, we're going to be able to use the skills and be a bit more - what's it - like, careful with it.” (Alice, Parkour, Focus Group 1)

“I showed it to my step-dad. Mainly just like the punches. Like for jab cross, hook, uppercut, erm, front kick, roundhouse kick and like my dad asked me to like try it better.” (Lucy, CrossFit/Kickboxing, Focus Group 2)

“And I did go home and like, I think I'd like practised some of the stuff, like after the first session” (Georgie, Parkour, Focus Group 3)

“So after, after the session we went on the Friday [to an external parkour club] and we showed 'em our new skill, and he was really, well, yeah - he was really impressed with me.” (Grace, Parkour, Focus Group 3)

The quotes above show the most obvious outcome of the units: pupils want to carry on doing the activity itself, whether that be a follow-up unit at school as part of the PE curriculum, a school-based extracurricular club, an external club, or in their own time with family, friends, or alone. These quotes collectively demonstrate that the novel activities introduced in PE have successfully engaged pupils, prompting them to continue these activities on their own initiative. The pupils expressed desires to pursue further training, practice skills at home, and seek external validation (from family or coaches), indicating a meaningful connection to the

activities. This aligns with the goals of meaningful PE by fostering (a possible) long term commitment to physical activity through personal relevance, engagement, and the development of skills that extend beyond the classroom. Given that, for many pupils, PE has, for years, failed to inspire further engagement in physical activity (e.g. Engström, 2008; Ladwig, 2018; Sullivan, 2021), this is a significant positive outcome for the intervention units.

While inspiring participation in the activity itself is one measure of success, the analysis also identified other avenues of success.

“I would say so, yeah. I think that I would be more willing to try, like, because parkour, I never really saw myself doing that type of thing and now I think it's like, possible. So, I definitely think that it has improved my wanting to do new things.” (Ryan, Parkour, Focus Group 4)

“If it happened like [other new activities] I would definitely do it because like it's kind of raised like my confidence levels like” (Amber, CrossFit/Kickboxing, Focus Group 2)

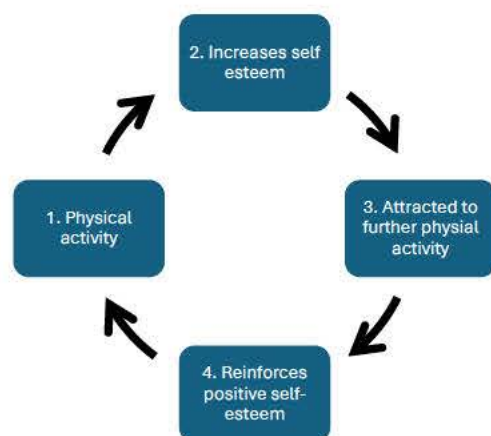
“Like, I'm glad I tried it because it's not something that I would do every day after school because I'd normally just go home and relax, but it did build, like, confidence in me to try other things like Parkour.” (Faye, CrossFit/Kickboxing, Focus Group 2)

“Yeah, because I said I was reluctant at first, and now I did it, and I'm just like, okay, well, next time there's an option for something that's like PE-related, I probably will go for it.” (Evie, Parkour, Focus Group 3)

The quotes provided offer insightful perspectives on how participating in the parkour and CrossFit/Kickboxing units have enhanced pupils' confidence, a key component of physical literacy (Whitehead, 2010). Although these students may not pursue these particular activities further, the experience has broadened their horizons and emboldened them to explore new physical activities. This newfound confidence is likely to facilitate their involvement in further physical activities in the future, potentially planting the seeds for a lifelong engagement with PA. This is particularly impactful for the three girls with low self-esteem and confidence, highlighted as key reasons for girls avoiding PA (Cowley et al., 2021; Laird et al., 2018) and a long-standing issue within PE with recent research from the Youth Sport Trust (2023) identifying a third of girls stating a lack of confidence prevents them being active. Therefore, the impact of the interventions in raising confidence levels for some participants is a significant step in the right direction, aligning with key work on positive

physical activity cycles (Parschau et al., 2013; Lu et al., 2014; Jackson et al., 2014; Babic et al., 2014) – figure 7.3 summarises this relationship.

Figure 7.3 – Positive Physical Activity Cycle (Sonstroem, 1997)



The above is perhaps best summarised by an entry from one of the teacher-researcher reflections in the parkour unit.

“Have I created 25 new parkour athletes? No, this was never the intention. What I believe I have been able to show is that there is more out there than just traditional sports and most importantly pupils should have the confidence to try something new” (Reflection 6, Parkour)

In a similar vein, Poppy summarised the impact of the unit from her perspective in the teacher interview.

“I think the best bit was just them trying something new, them having an understanding of a different sport which is keeping them physically active, but it isn't like a traditional sport. I think it's kind of like opening their eyes to like how much stuff could be out there, erm, and then just the enjoyment that they had, like they absolutely loved it. They wanted to come back, and they wanted to do more, and they've asked if it can, it can happen again, and like, that's exactly what we want from these kind of things. We want them to find something they really enjoy.” (Poppy, Teacher Interview, Parkour)

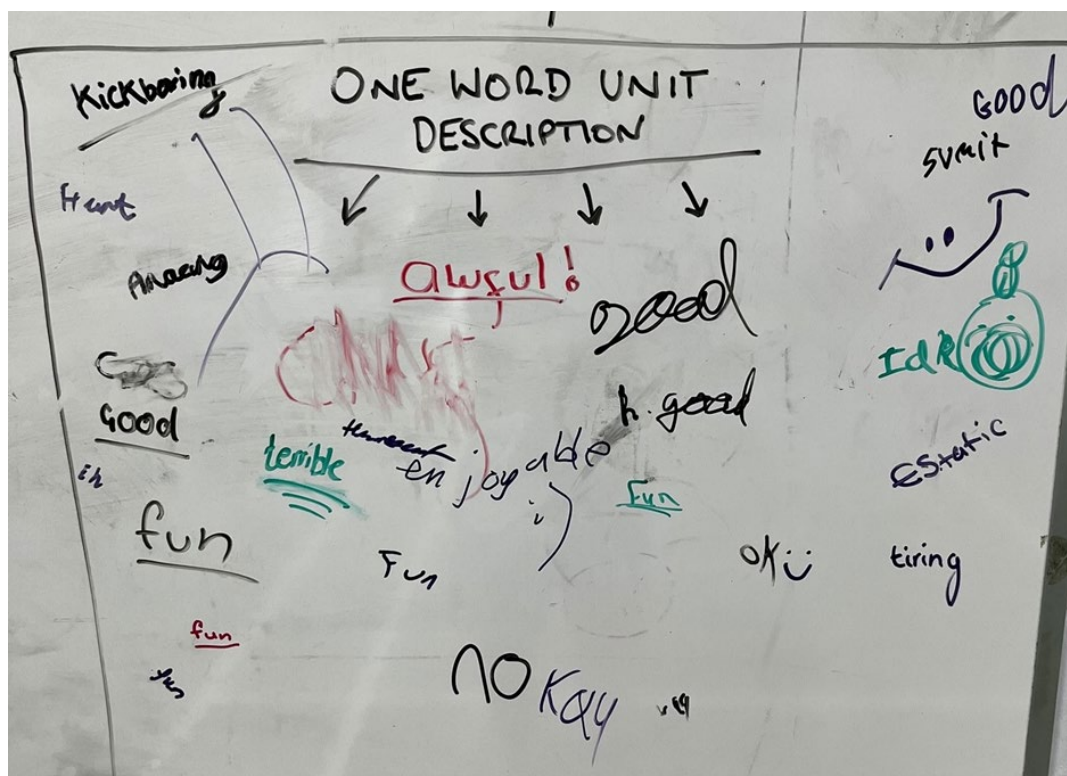
The summaries here align well with a physical literacy-informed approach that seeks to use PE as a vehicle for further engagement in meaningful PA that enriches young people's lives and allows them to flourish (Durden-Myers et al., 2018; Lundvall, 2015). The positive feedback from many pupils, the teacher-observers and the teacher-researchers reflections

suggest these lifestyle activities hold much potential within the sphere of PE, where these kinds of activities may offer a route to increasing positive experiences, which are more likely to result in a positive relationship with PA.

7.4 - Negative or Neutral Views

While the responses to units through both the quantitative and qualitative data were generally positive overall, it would be remiss not to report on some of the findings that showed the impact of the units was not the same for all pupils. The figure below was taken from the final CrossFit/Kickboxing lesson, where pupils were asked to provide a one-word summary on the board.

Figure 7.4 - Pupil One Word Summary of the CrossFit/Kickboxing Unit



The teacher-researcher commented on this in the reflection after that lesson.

“In the reflection period of the lesson, after planting the seed earlier, I asked them to write one word on the board to describe their unit experience, I reminded them they didn’t have to be positive, I wanted an honest answer... I think the outcome shows the difficulty in working with a large group of varied individuals, whilst I can see lots of positive words you can also see some pupils who decided to write some less positive words. I’m looking forward to exploring this further in the subsequent surveys and focus groups.” (Reflection 7, CrossFit/Kickboxing)

Some of the data taken from the focus groups after the CrossFit/Kickboxing unit further highlights and expands upon this.

“It was interesting, but it was also just a bit dull for me...It's just meh.” (David, CrossFit/Kickboxing, Focus Group 1)

“It, it, it doesn't really mean much to me, I guess. I won't, I, I don't really know. Like, I wouldn't really do it outside of school, I don't think.” (Sarah, CrossFit/Kickboxing, Focus Group 3)

“I don't really know why. I just, like, didn't like what we did.”

Interviewer: Yeah. Um, was it the activity or the teaching approaches, or both?

The first one.” (Jess, CrossFit/Kickboxing, Focus Group 3)

Robert further highlighted this in his post-unit interview.

“Erm, but, yeah, in terms of - I'm not sure how else the intervention could have been - I think it ran really well, erm, and my - from my conversations with the students who were involved, they thoroughly enjoyed it, a large majority anyway. Obviously you get those few that - but that just goes back to a challenge that we all have, don't we?” (Robert, Teacher, Interview, CrossFit/Kickboxing)

The challenge that we all have, as Robert puts it, is that we work with a relatively large group of diverse pupils from varied backgrounds, with differing interests and abilities, and it has long been a difficulty for teachers to try and engage all young people within their lessons (Dolittle, 2016; Gray et al., 2017). Despite the best efforts of the teacher-researcher, for some pupils. the units did not result in increased engagement. However, this does not mean that the units were meaningless. By using reflective approaches aligned with meaningful PE, pupils can build up a greater understanding of what they find meaningful and, importantly, what they do not. This was highlighted in the closing of the exchange with Jess, as the teacher-researcher commented.

“But it is important to find out what you don't like and what you do like” (Jordan, Teacher-Researcher, CrossFit/Kickboxing, Focus Group 3)

Fletcher and Ní Chróinín (2021) support this use of reflection for young people to analyse their experiences to gain a greater understanding of what engages and motivates them to be physically active. O'Connor (2019, p.1093) contends that the facilitation of meaningful experiences in PE “involves supporting students to explore their personal experiences in movement and to use these to derive a greater understanding of

themselves and the world in which they live”. I am hopeful that Jess (and the others) who found the experience less engaging have still found value in the experience through the use of the reflective pedagogies implemented to gain a greater understanding of themselves that may inform their future PA choices.

7.5 - Blending the Activity with the Approach

Whilst the activities themselves appeared to hold much value for the pupils, the teaching approaches and atmosphere created within the lessons also seemed to play an important role in bringing the activities to life.

“It's like 'cause no one, like, like you said, like no one was watching you and you, no one was like being judged 'cause everyone has different skills, so it was, it was like really good to just like, like play around with all the things that you could do.” (Rosie, Parkour, Focus Group 3)

“It kind of motivates you to like do, try harder because there's no one judging you. And there's no one like, also there's no PE staff like taking an assessment on you as you do things.” (Lucy, Parkour, Focus Group 3)

“The pupils are engaged and excited by the activity itself but also helped by the teaching approaches and atmosphere created.” (Robert, CrossFit/Kickboxing, Observation 5)

This shift away from performance-oriented social comparison and formal assessment allowed Rosie and Lucy to explore the activities on their own terms, enhancing their enjoyment. Robert's observation also alluded to the atmosphere created in the lessons (through the democratic approaches) and how this positively influenced engagement.

“I completely agree with Tim, it was very fun, and it's like, what I liked about it was, if something was too hard with parkour, there's always another way around it, compared to... It's like, you can be more creative with it. If you can't do something, find another way around it, rather than just brute forcing it.” (Richard, Parkour, Focus Group 4)

“When you're in Parkour, you could set your own level, so you don't have to do it to the standard that everyone else is doing it.” (Lucy, Parkour, Focus Group 3)

For Richard and Lucy, having the choice to adapt to the level of challenge helped them feel a greater level of competence. This shows the interplay between the features and pedagogies of MPE that made the activity itself more enjoyable.

Pupils also commented on the social aspects of the lessons/teaching approaches that helped shape their experiences.

“I'm never going to forget that I don't think. It was, er, loads and loads of fun, and I think also I can bring in sort of social aspects of the parkour unit because, erm, being able to, we're in a group now, er ... but, er, being able to, er, sort of explore the space as a group and being able to, er, work together and challenge each other, er, compete with each other and, erm, find the best, find the best ourselves I guess.” (Mohammed, Parkour, Focus Group 4)

“It'd be memorable because when you have, like, when you don't have as much fun, you don't really, like, have it as a memory because you didn't enjoy yourself. But when you're with your friends, like, the choice, you kind of, it makes it more, like, fun for you and, like, everybody else.” Charlie, CrossFit/Kickboxing, Focus Group 3)

Mohammed and Charlie both valued the social aspects of the activities. Within LS, the subcultures and connections play an important role in attracting and maintaining engagement (Gilchrist & Wheaton, 2017), so this was an important aspect of the unit design and pedagogical approaches. The delivery wanted to closely mimic (as much as possible) how the activities might look in the real world, with less formal structures that the meaningful PE approach seemed to align with, as the comments from pupils below identify.

“So having the opportunity to like basically create our own lesson, in a way, it was different because in normal PE it's not, you just get given a task like to do.” (Tim, CrossFit/Kickboxing, Focus Group 2)

“When we'd, like, when we had the freedom to do, like, pick our own combinations and stuff, I kind of enjoyed it more though, because the, you get to set yourself, like, your own challenge and not someone else setting your challenge.” (Charlie CrossFit/Kickboxing, Focus Group 3)

An element of choice, through democratic approaches, enhanced the experience for both Tim and Charlie, again demonstrating an interplay between the activity and the teaching approaches. The observing teachers also commented, within observations and interviews, on how the approach almost allowed the fire within the activities to burn brighter.

“You giving them, erm, a bit more freedom to go and explore, erm, I think that in the right capacity as well is, is a good, a good tool to, to use and embed.” Robert, CrossFit/Kickboxing, Teacher Interview)

“I think for the cohort that it was, I think it was perfect. I think they needed the information to be able to go and understand what parkour was, but they also

needed the freedom to kind of explore and experiment and keep trying things” (Poppy, Parkour, Teacher Interview)

“Again lots of enjoyment and excitement, the activity here obviously helps, but the teaching approaches (particularly around pupil autonomy) seem to help with the enjoyment factor too.” Poppy, Parkour, Teacher Observation 4)

“Been a great unit, the activity itself has been fresh and exciting for the group and the teaching approaches that moved from more teacher-led to more pupil-led as the unit progressed were great to see.” (Robert, CrossFit/Kickboxing, Observation 7)

It would be remiss to think that implementing LS alone is a formula for success. What became apparent from the various data sources was that the teaching approaches utilised centred on MPE, complemented the nature of the activities, and seemingly acted as a catalyst in boosting the impact of the activity alone. Learning in LS in society has been identified as predominantly informal, self-regulated and individualistic (Ellmer et al., 2019; Wintle, 2022). With this in mind, the fit with MPE pedagogies focused on pupil-centred democratic approaches provided an excellent platform on which to base the lessons (Fletcher & Ní Chróinín, 2022). This allowed the pupils to gain an authentic and realistic view of what these activities might be like if they were to pursue them in their own time.

Previous work that aligns particularly well with the CrossFit/Kickboxing unit looked at a health club-style intervention with teenage girls (McNamee et al., 2017). The findings in the present study align well with the results of the health club intervention, where the girls valued the autonomy that they were offered in the lessons and the sense of relatedness gained from the group setting. Similarly, to the CrossFit/Kickboxing (and to some extent the parkour) intervention, the overall feeling of a more engaging PE experience was nearly unanimous in the group. However, in contrast to the health club intervention, the use of school sites and (predominantly) school-based equipment makes the feasibility of the intervention more manageable for most schools than the offsite nature of the health club intervention (this is explored in more depth in the following chapter).

The pedagogies utilised within the interventions are very much aligned with democratic approaches and need-supportive teaching, as discussed in the previous chapter. What this does demonstrate is the requirement for teachers to blend both content and pedagogy. Shulman (1986) named this combination of content knowledge (CK) and pedagogical knowledge (PK) as pedagogical content knowledge (PCK). This is the use of effective strategies, methods and resources to teach specific content. Within the intervention, the alignment of content (the

activities) with the teaching approaches (heavily influenced by MPE and needs-supportive methods) in an attempt to create an authentic learning environment for these activities had a positive influence on the experiences of many pupils. Therefore, it appears the intervention, primarily due to the blend of activities and teaching approaches, provided a contrasting atmosphere and approach to many traditional PE lessons that most pupils warmly received.

7.6 - Potential Improvements

Closely connected to the experiences of the pupils who identified the units as less positive/impactful is the need to seek further views from the pupils, the teachers, and the teacher-researcher on how the units could have been improved. This is with a view to increasing the potential for positive impact or amplifying the existing positive outcomes that were evident for many pupils. This was a key section of the focus groups and the post-unit questionnaire. Some of the pupil feedback is shared below.

“I would probably spend, like, an extra lesson on each part. So, because I feel like it was really nice, but if you do it for one lesson it's kind of like, like an experience, and then it kind of gets left there, but if you do it for two lessons it kind of becomes a bit more of a pattern, and I'd probably... Like, it would probably stick with me a bit more, and it would allow me to... Like after the first lesson and kind of getting comfortable with what we're doing, I'd be able to properly push myself and see how well I could do in it.” (Matt, Parkour, Focus Group 2)

“Erm, like, er, we need like more time to do it.” (Rylan, CrossFit/Kickboxing, Focus Group 1)

“So something that I would wanna change is, like, we didn't... 'Cause some lessons, we only have, like, 50-minute lesson. Then take away the time that it takes us to get changed, you don't really get that long. So it's like... If we had like tennish [sic], like, hour lessons, I feel like that's enough time to get, like, enough experience with the sport.” (Darren, CrossFit/Kickboxing, Focus Group 1)

“'Cause if you do it for longer, then you're gonna get better at it and you might carry it on out, outside of school...if, 'cause if you're enjoying it, you do it for longer. You might start like doing it outta school.” (Zane, CrossFit/Kickboxing, Focus Group 2)

The desire for more time, either in terms of lesson length or number of lessons, was a common theme in the pupil responses when asked for their ideas on unit improvement. Within the questionnaire, a third of the CrossFit/kickboxing group suggested that more time

on the activities would have been beneficial for their experience. This number was slightly elevated in the parkour group, with 10/24 (42%) pupils identifying a desire for more time to be spent on the activity - a point that was also echoed in the teacher-researcher reflections.

“It’s interesting that short units get criticised, I can relate to this, particularly with active learning time in lessons being 35-40mins (50mins lesson with time lost for changing etc). It’s only now after 5 lessons that I am starting to see them developing more competence and confidence and getting a real feel for the activity” (Teacher-Researcher Reflection 2, CrossFit/Kickboxing)

The length of the intervention was dictated by the schools and, for the most part, by the head of PE in each school. They had to effectively give up some of their originally planned curriculum to host the intervention. So, whilst the teacher-researcher initially asked for 10-12 lessons, the interventions were equivalent to 8 lessons (see methodology chapter for exact breakdown). The use of short units has received criticism in the past for not allowing pupils the depth of experience to develop competence and gain a full appreciation of the activity (Green, 2014; Kirk, 2012; Siedentop et al., 2019). Using the work centred on physical literacy development, Whitehead (2021) suggests that a unit of learning in one activity should be at least 10 lessons long (assuming at least 40-minute lesson length, excluding changing time) to develop mastery and confidence in the activity. It is, therefore, unsurprising that the pupils seemed to have a strong appetite for more time on the activities.

Further feedback from the pupils suggested other areas of improvement related to MPE pedagogies.

“More choice in who we work with and what we worked on” (Leroy, CrossFit/Kickboxing, Post-Unit Questionnaire)

“One thing I would like to change about the kickboxing lessons is having more choice on what to do (smiley)” (Claire, CrossFit/Kickboxing, Post-Unit Questionnaire)

“I want to choose which area of the room I work on (referring to the zones we set up with different skills).” Rosie, Parkour, Post-Unit Questionnaire)

An element of choice seems to be a significant contributor to enjoyment for the pupils. Despite the evidence suggesting pupils had a good deal of choice within the units, some of the pupils still have an appetite for further elements of choice. We have already explored how powerful autonomy-supportive environments can be and the strong impact of democratic approaches, so to some extent, it is unsurprising to see this drawn from the data.

Perhaps the challenge for teachers is how to balance the level of choice/autonomy with the right level of support, as the quotes from Mohammed, Elsa and Anna demonstrate.

“Um, maybe we could, like, when, like, at the beginning we could sort of have a bit more sort of breakdown into parkour, and like maybe just like some examples we could see, examples of how it's been used in real life and stuff.” (Mohammed, Parkour, Focus Group 4)

“Sometimes with, um, a lot of freedom, er, sometimes the whole possibility of creating something entirely new, that is entirely of our own choice, sometimes, like, scares people in such a way. I know sometimes during PE, it's sometimes scared me 'cause I've had to, like, think of something completely, like, new based on what we've all learned, and then just to try and make it into something that's going to be shown later. So, it's just the prospect of that sometimes can be a bit scary for some people” (Mohammed, Parkour, Focus Group 4)

“[The one thing I would change about the unit is] having more help technique-wise” (Elsa, Parkour, Post-Unit, Questionnaire)

“I would change the amount of time we had with the teacher, I think more explanation would be more beneficial” (Anna, Parkour, Post-Unit, Questionnaire)

These are insightful points from the pupils that are worthy of further reflection. There can be a slight difference between providing autonomy and slipping into a more abandoning style (discussed in the previous chapter), where pupils will feel unsupported and, to some extent, neglected by the teacher (Aelterman et al., 2019). Perhaps this speaks to the need for a teacher to have a good knowledge of their pupils and engage with each child, one of the three fundamental principles of a physical literacy approach outlined by Whitehead (2021). This was potentially difficult within the intervention due to the teacher-researcher being new to each of the groups. While I was able to begin to see which pupils may need more support than others later in the intervention, this was harder to judge earlier in the delivery due to not knowing specific personalities within the group.

7.7 Chapter Summary

The study found no statistically significant differences between pre- and post-unit data overall within the CrossFit/Kickboxing unit. However, individual responses indicated strong positive reactions, particularly among female pupils, with significant increases in choice and MPE pedagogy. This suggests that the CrossFit/Kickboxing unit demonstrated more significant positive changes among female pupils, highlighting the potential of this type of

activity to enhance experiences for girls in PE. In contrast, the parkour unit exhibited statistically significant increases in six of the nine areas, including competence, fun/enjoyment, challenge, choice, overall meaning, and MPE pedagogy. This indicates a strong positive reaction to the unit, further reinforced by subsequent qualitative data.

Both pupils and teachers reflected positively on the novelty and excitement of the non-traditional activities. Data from focus groups and post-unit questionnaires underscored the enjoyment, fun, and newness of these activities, all of which contributed to a positive experience. There is a suggestion that novelty could be a new feature of MPE; however, this requires further exploration. LS were found to level the playing field as most pupils had limited or no prior experience in these activities, thereby making them seem more accessible. This inclusivity was particularly beneficial for lower-ability pupils and girls, who traditionally engage less in PE. Despite quantitative data indicating a drop in personal relevance, qualitative data revealed that many pupils found parkour and CrossFit/Kickboxing personally relevant and applicable to their everyday lives. Pupils appreciated the novel and challenging nature of these activities, as well as the elements of choice and social interaction they offered.

The success of these units was closely linked not only to the activities themselves but also to the teaching approaches employed. Integrating activity-specific pedagogies with MPE practices enhanced student engagement and learning. The emphasis on student choice, challenge, and non-competitive environments helped tailor the activities to meet the needs and interests of all pupils. However, a small number of pupils reported negative or neutral experiences, which underscores the challenge of working with diverse groups. It also highlights the importance of reflection as a tool for pupils to understand their PA preferences better.

This chapter identifies several areas for improvement, including the potential benefits of longer units and, to some extent, greater use of pupil choice and autonomy. Nevertheless, some pupils expressed a desire for more support, emphasising the importance of knowing your pupils and tailoring the approach to their specific needs. Overall, the findings suggest that LS can offer meaningful and engaging alternatives to traditional, often competitive, PE. This approach has the potential to improve the experiences of both those already keen on PA and those from traditionally disengaged groups.

Chapter Eight - Implementing Change in Physical Education

To work towards research objective 3 (critically analyse the barriers and enablers to change to integrate LS within PE curricula), this chapter considers the process of implementing change in PE, specifically related to the integration of LS.

Data derived from across the duration of the study indicated that the process of implementing LS into PE is complex, requiring teachers to navigate numerous barriers and enablers at both the structural (department, school, local authority or national policy) and individual levels (teacher beliefs/ethos, competence, desire to change). To better understand these factors, this section draws on two complementary theoretical frameworks: Practice Architectures (Kemmis, 2012) and Kotter's 8-Step Model of Change (Kotter, 1996), both discussed in the literature review chapter. Together, these frameworks offer a robust lens through which to examine the data gathered from teacher interviews in this project. Practice Architectures provides insights into how the cultural-discursive, material-economic, and social-political arrangements within schools influence the practices of teachers (Kemmis, 2012). Meanwhile, Kotter's 8-Step Model offers a step-by-step guide to understanding the processes that can support or hinder efforts to introduce LS into the PE curriculum.

These frameworks not only help to structure the discussion of barriers and enablers but also enable a deeper analysis of the dynamics at play, which is crucial for generating practical solutions. The frameworks allow us to explore how teachers' practices are shaped by broader school environments and how change can be enacted strategically to overcome resistance and foster innovation. This theoretical approach aligns with the broader discussion in the literature review, where Practice Architectures and Kotter's model are discussed in greater depth. By grounding the analysis in these frameworks, we can better understand the key factors influencing change, as well as the processes through which it can be achieved, ensuring a more inclusive and forward-thinking PE curriculum.

8.1 – The Desire for Change

To start this chapter, I want to take you back to near the start of the project when I was first sharing the idea of the intervention units with local heads of PE at one of their termly meetings. You may recall from the methodology chapter that I attended two meetings within

the county, one with heads of PE from a large town and the other with the same group from a nearby city. In total, 23 secondary schools were represented at these meetings; these were a mixture of state-funded schools, academies and private schools. Out of these 23 schools, four schools were happy to progress conversations with the researcher; looking back, this was the first significant finding linked to the theme of change. Historical research has, for decades, advocated for changes in PE (Kirk, 2012; Sullivan, 2021; Tinning & Fitzclarence, 1992). However, the appetite shown in the initial presentation of the research idea was not met with the overwhelming enthusiasm for change one might have expected. Whilst I was not actively collecting data at this time, recalling some of the responses seems worthy of reflection. Comments received were along the lines of “Haven’t got time for that, sorry”, or “Not really right for our kids.” Along with sentiments like “Not sure where we would fit that in”. Of course, these were practitioners, not researchers. So, I would not necessarily expect the same levels of enthusiasm for research-informed practice that I might demonstrate. Nevertheless, the desire to do better should perhaps be more substantial.

Whilst these are not verbatim quotes, they are representative of the general narrative around the opportunity. There were also plenty of Heads of PE who did not engage at all, passing no comment on the opportunity or showing any desire to be involved. Whilst this will undoubtedly be reflective of the workload in some schools (Jomuad et al., 2021), it also goes to show a potential lack of appetite for innovation and longer-term change, which has been prevalent in the research to date (e.g. Casey & McPhail, 2018; Herold, 2020)

The initial interactions at the termly meetings highlight a general reluctance to embrace change among these PE leaders, illustrating a significant initial barrier to the project’s inception. Despite the historical advocacy for innovation within PE, as noted in the existing literature (Kirk, 2012; Sullivan, 2021; Tinning & Fitzclarence, 1992), the responses from heads of PE reflected a prevailing cultural discourse that was resistant to new ideas. This aligns with the practice architectures framework, which emphasises how entrenched cultural-discursive factors can shape educators’ beliefs and practices. The dismissive sentiments expressed, ranging from concerns about time constraints to uncertainty about the applicability of LS for their students, underscore the deeply rooted traditional values that permeate many areas of the PE landscape.

Moreover, the disengagement exhibited by many heads of PE exemplifies the challenges described in Kotter’s Step 1: Creating a Sense of Urgency. The absence of an immediate incentive to shift from established practices resulted in a lack of momentum, with many

educators seemingly disinterested in pursuing innovation. This lack of engagement is indicative of a broader trend in PE, as noted in previous research (Casey & McPhail, 2018; Herold, 2020), where the inertia of established norms and expectations can stifle the introduction of new initiatives or pedagogical approaches. However, this also underscores the crucial role that educators play in the change process. Consequently, this interplay between cultural resistance and the need for urgency illuminates the complexities involved in facilitating meaningful change within educational settings, suggesting that a more strategic and nuanced approach is necessary to foster an environment receptive to innovative practices such as LS. Whilst LS appeared to offer a potential avenue to more meaningful experiences, as the previous chapters have exemplified, it did not come without associated issues. Key barriers to implementation aligned with practice architectures and analysed using Kotter's 8-stage model are outlined in more depth below.

8.2 Barriers and Enablers to Change

This section considers the factors that could either prevent or slow change within PE and also those elements that may smooth the way for change in practice.

8.2.1 Departmental Ethos and Cultural Discursive Practices

The department's ethos and culture were frequently acknowledged as either aiding or blocking curriculum innovation, including the implementation of LS. Within the practice architectures framework, this represents the cultural-discursive arrangements that prefigure the ways teachers discuss and justify their practices. When referring to curriculum change in her school, Poppy commented.

“I think sometimes if there's something set for a period of time... it's harder to change and shift because it's almost like the previous year groups done that and then, you then just keep going with it. So that shift for change can be quite difficult” (Poppy, teacher interview).

Poppy's remarks reflect a deeply ingrained discourse that links curriculum tradition to stability, suggesting that change is viewed as disruptive rather than innovative. This cultural-discursive arrangement may act as a barrier, as it frames LS as a deviation from "normal" PE practices, particularly in schools like hers, where traditional sports dominate the curriculum. This resistance to change is not uncommon in educational environments where long-standing

traditions are valued over innovation (Stidder, 2017; Sullivan, 2021). The broader social-political arrangements within these institutions often reinforce these cultural norms, as teachers may face pressure from colleagues, parents, or even students to maintain the status quo.

The practice architecture framework highlights how these cultural-discursive practices are closely linked to broader social-political forces. In Poppy's case, the longstanding dominance of traditional, gendered competitive games within her school's curriculum (highlighted in the school description in the methodology chapter) may act as a powerful barrier to the adoption of LS. As Petrie (2016) described, schools often position these traditional sports as central to their identity, which makes it difficult to introduce newer activities that challenge this perception.

In contrast, Robert was more optimistic about the need and ability to change the curriculum.

“I think this could be embedded slowly, erm, to become the, the new focus in terms of that, obviously still staying in our lane, but making sure that it's, erm, it's hitting different students, because we did a survey before at our school and we found that 55 per cent enjoyed PE, 45 per cent didn't. So we were thinking, well, 55 per cent enjoy PE, what about the 45 per cent, that's a, that's a huge number.”
(Robert – Interview)

“I think it comes down to, erm, what you want to achieve as a department, and also moving with the times in that sense... and being open to trying it, and if it doesn't work, then at least you can just be like, it didn't work for us” (Robert - interview).

Robert's first quote provides a compelling entry point for understanding Step 1: Creating a Sense of Urgency within Kotter's model. His reflection on the potential for gradually embedding LS into the curriculum underscores the importance of recognising the diverse needs of pupils in PE. By highlighting the disparity in student engagement, where, according to their departmental survey, 45% of students do not enjoy PE, Robert acknowledges a critical issue that demands immediate attention (creating a sense of urgency). This recognition serves as a potential catalyst for change, as it frames the integration of LS (or other potential changes) not merely as an optional enhancement but as a necessary evolution of the curriculum to serve all young people better.

In his subsequent quote, Robert's emphasis on ensuring that the new focus of the curriculum resonates with a broader student demographic creates a sense of urgency among his colleagues. He implicitly calls for an urgent need to address the significant portion of

students who feel alienated from traditional PE offerings. By framing the introduction of LS as a possible means to engage this underrepresented group, he advocates for a strategic shift that aligns with the pressing demand for greater inclusivity and relevance in the curriculum. This connection highlights how Step 1 of Kotter's model is not just about generating enthusiasm for change but also about confronting the challenges posed by existing practices and acknowledging the broader implications for pupil well-being and engagement, an ongoing issue highlighted throughout the literature (e.g. Hemmingway et al., 2023; Kirk, 2012; Sullivan, 2021). In doing so, Robert's perspective reinforces the idea that change is not only beneficial but essential for meeting the diverse needs of the pupils, setting the stage for the subsequent steps in Kotter's framework. Robert's comments suggest a more flexible cultural-discursive practice within his department, which views curriculum change as experimental and iterative. This culture aligns with Kotter's Step 1: Creating a Sense of Urgency; in environments where a sense of urgency is created, whether due to shifting pupil interests, societal changes, or government policy reforms, there is greater openness to adopting new forms of practice. Robert's department may be more aligned with this step, where the urgency for change is acknowledged and acted upon, even if the outcomes are uncertain. By "moving with the times," Robert highlights the need for PE to evolve, which is supported by Step 4: Communicating the Vision - where teachers and departments articulate the need for change to inspire action.

In addition, Robert's remarks hint at Kotter's Step 2: Building a Guiding Coalition. The success of his department's approach may rest on the presence of a leadership team that is committed to fostering experimentation and innovation. Without such leadership, even the most open-minded teachers might struggle to bring about meaningful change, as they lack the support needed to sustain new initiatives. Later in his interview, Robert stated:

“So we were thinking like what can we do to improve this...we've looked at different sports as such, and I think that's slowly being embedded into our curriculum, which is great, erm, we just need to keep, keep moving forward with that.” (Robert, teacher interview)

My interactions with the Head of the department at Robert's school supported his teams' notion of enhancement and continuous drive to improve; he was immediately very interested in the project and took a keen interest in the rationale and underpinning literature. During the delivery, even though he was not directly involved in the lessons, he always took time to

come and see how things were going. At the end of the unit delivery, we spent some time chatting after the final lesson, which is detailed in the final teacher-researcher reflection.

“John and I had a catch-up after the lesson; he was very interested in how I found the delivery, having heard positive things from Robert and some of the pupils in the class. He really showed a genuine interest in moving things forward with their curriculum design to try to raise pupil enjoyment and engagement in lessons. It was refreshing. John has been around a while (over 25 years in teaching), but he still has the desire to keep moving and keep improving; this ethos of providing staff with permission to try something new creates a safe space for the less experienced teachers to be brave.” (Teacher-Researcher Reflection 7)

8.2.2 - Social-Political Influences – The Freedom to Change

The climate for change (or not) created by senior figures within the school is crucial if we are to see meaningful shifts in practice. This was evident in the intervention research from Vasily et al. (2021), where the school and department ethos helped to initiate and sustain change. In the quote above, the language reflects a shift in the discourse around what constitutes effective PE. John’s interest and openness to change, despite his years of experience, reflects a discursive shift toward innovation and adaptability within the school culture. In his position as Head of PE, and with the respect of his staff, John’s openness to change creates a sense of opportunity and autonomy for his staff, creating a safe social space in which to experiment. Roberts's quote below highlights the department ethos and sharing of power to provide openness to change that is driven by the head of PE.

“I think if your head of department or department, erm, are there pushing that sport and, and we embed that into our curriculum, erm, that will happen” (Robert, teacher interview)

This practice creates a safe space where teachers, especially less experienced staff, feel they have permission to try new things without fear of judgment or repercussions if things go wrong. The discourse of permission and the encouragement to be brave allows experimentation with new pedagogical approaches or activities, like the one in the intervention. This atmosphere and shared understanding within the teaching community are critical for enacting new practices as teachers align with new ideas and models of curriculum development. If we look back at teacher socialisation (Lawson, 1983) identified in the literature review, and in particular the occupational socialisation phase, John is creating an environment where his teachers are encouraged to be innovative and not simply fit in with existing practices or accept the status quo. This attitude from more experienced colleagues with high levels of influence helps to gradually shift practice forward, directly contradicting

some of the stagnation in approaches to the subject detailed in previous work (Curtner-Smith et al., 2008; Everly & Flemons, 2020; Jess et al., 2020; O’Leary, 2012).

Linking the above with Kotter’s work, John's engagement with the unit suggests the formation of such a coalition. By showing genuine interest in moving forward and raising pupil engagement, John embodies a leader who is fostering a vision for change (Step 3: Develop a Vision and Strategy). His long-standing experience and open-minded ethos help build trust and credibility, which supports Step 2 (Form a Powerful Coalition) by empowering the teaching staff to feel secure in trying out new activities. The idea of permission and creating a safe space can also be linked to Step 5 (Enable Action by Removing Barriers). This ethos breaks down potential cultural or organisational resistance, making it easier for teachers to embrace innovation. It cultivates a positive emotional climate, essential for Step 7 (Sustain Acceleration), where teachers continue to innovate and sustain the momentum of change, even after initial successes.

You could argue that based on the above and the fact that the school and department were open to hosting the intervention, we were in ideal conditions, working with individuals and groups that had, to some extent, already been introduced to the idea of innovation. The major challenge moving forward is how to change practice on a larger scale in schools or departments that may be more hesitant or less open to trying new ideas and, therefore, more challenging to engage with. This is a point that will be revisited in the conclusion of this thesis as we consider how we might upscale and leverage some of the findings from this study.

8.2.3 - Teacher Competence and Material-Economic Constraints

Teacher competence in delivering LS was another significant theme emerging from the data. Both Poppy and Robert expressed concerns over teachers' preparedness to teach LS effectively.

"It's something that isn't done very widely or hasn't been done in teacher training...they probably wouldn't feel competent to deliver the lessons" (Poppy, teacher interview).

"...I think that teachers, it's our obligation to step out of our comfort zone and do a bit of reading around it" (Robert, teacher interview).

These comments reveal the material-economic arrangements at play in the practice architectures of LS implementation. Teacher competence is not merely about personal readiness but is tied to structural factors such as access to continuing professional development (CPD) and the availability of resources. The notion of teacher competence within PE is often grounded in traditional sports, which are more familiar to teachers due to their own experiences in education and training. LS, by contrast, are frequently outside the scope of what many teachers learned during their initial teacher training.

Poppy also commented in more depth on safety issues in some activities that would cause her some initial concern.

“I think a lot of it would be teachers would be concerned about safety because they haven't had any training in it... To ensure that they, number one, knew how to show them skills, but then also understand, like, how to progress, how to regress, how to make sure that all kids are safe” (Poppy- Teacher interview)

Many teachers lack exposure to LS in their initial teacher training and are often unable to access CPD opportunities due to financial and time constraints (Leeder & Beaumont, 2021). This lack of preparation contributes to a cycle where traditional PE practices are continually reproduced as teachers do not feel adequately prepared to teach such content, with safety being an excellent example of one area that is of particular concern. Without a clear commitment to CPD that addresses LS specifically, teachers will likely continue to feel underprepared and unwilling to introduce these activities into their classes. This is consistent with Kotter's Step 5: Empowering Broad-Based Action, which emphasises the need to remove obstacles and provide the resources and support necessary for change. Within schools, this means allocating time and money to invest in training for current staff. Within initial teacher education, this requires a shift in some programmes to re-balance the curriculum offered to ensure newly qualified teachers are equipped with both content and pedagogical knowledge to integrate LS into the school curriculum effectively. Robert commented positively on the ability of his department to develop teacher competence in these areas despite the challenges of time and funding.

“I think that's a challenge in itself, but, but I also think it's a challenge that you can easily overcome, because you have, you have department time, you have, erm, continuous professional development time, erm, whereby that could feature, erm, and we do it quite often.” (Robert – Interview)

Robert's proactive and solutions-focused attitude toward developing teacher competence was positive to hear. Recent research has shown that innovative teacher development programmes can act as enablers of change (Armour & Yelling, 2007; Roccliffe, 2023; Tannehill et al., 2020). For example, relating to LS training specifically, Leader and Beaumont (2021) discovered that teachers feel more confident in their ability to deliver these activities when provided with appropriate training. These findings underscore the importance of institutional support in facilitating teacher competence as well as broader change, a point echoed by Vasily et al. (2021) when launching their cycling unit. Schools that prioritise professional development for LS are more likely to see these activities integrated into the curriculum, as teachers feel empowered to step outside of their comfort zones and have the freedom to try something new.

However, there are material-economic constraints that must be addressed. As Poppy and Robert both noted, teachers often face significant workload pressures that limit their ability to engage in continuous professional development (Jomoad et al., 2021). This issue is compounded by the broader financial constraints facing many schools, as highlighted by Spielman (2020), which may lack the resources to invest in high-quality training for staff. As Kotter's Step 6: Generating Short-Term Wins suggests, one way to overcome these obstacles is to focus on small, achievable changes that can demonstrate the value of LS. For example, schools could begin by introducing a single lifestyle sport activity that requires minimal training and equipment, such as CrossFit or Parkour. Using free professional development options, such as collaboration with other schools/teachers or teacher educators, could be one way to overcome some of these potential barriers. These early successes could help build momentum for further change.

Financial and logistical challenges were evident as the final sub-theme in this area. The material-economic arrangements at play were particularly significant in this domain, where the cost of specialist equipment posed potential barriers to LS adoption.

"With finances, it's just if, if your school can afford the equipment, and if they will be able to store it" (Robert – interview).

Robert's reflection highlights how material-economic factors (such as school budgets) can act as enablers or barriers to change. For example, schools with larger budgets are more likely to invest in LS equipment. For example, the typical cost to supply kickboxing equipment within

the intervention unit for a class of 30 (a typical class size in the UK) is ~£1500, demonstrating a clear barrier for those under financial pressure who would be forced to forgo new initiatives with this level of investment needed. Financial constraints are a significant barrier across many schools in England, particularly as they face increasing pressures on their budgets due to rising operational costs (Spielman, 2020).

However, as Poppy highlighted, some LS, like parkour or CrossFit, can rely heavily on existing equipment that most schools have access to. This shows how creativity and repurposing can sometimes negate the need for further financial investment.

"Obviously, it's using the same equipment, so you'd think about, well, what space do I need? Well, I need the gym, which is gymnastics equipment" (Poppy – interview).

Poppy's comment highlights the importance of innovation in overcoming financial barriers. Schools that can repurpose existing equipment or spaces can reduce the cost of implementing some LS, making them more accessible. This aligns with Kotter's Step 6: Generating Short-Term Wins. By identifying low-cost solutions, schools can demonstrate the feasibility of LS, which can help build support for more substantial investments down the line. Schools can also look at creative funding streams, such as funding or grants from national organisations; for example, Sport England offers small grants for some projects in this area that could be a potential workaround for some schools.

8.2.4 Curriculum Crowding and Competing Practices

The PE curriculum has often been criticised for being dominated by traditional competitive sports (Gerdin & Pringle, 2017; Stidder, 2023) and often overcrowded with an extensive range of activities but often limited depth (Whitehead, 2021). Poppy grappled with the idea of fitting LS into an already crowded curriculum at her school.

"So you'd probably have to look at it within PE, and therefore you'd be looking at something like gymnastics or dance, which will probably be more likely to go. Erm, obviously, it's using the same equipment, so you would think about, well, what space do I need? Well, I need the, the gym, which is gymnastics equipment." (Poppy – Teacher Interview)

Poppy's slight reluctance to adopt LS, such as parkour, as a replacement for areas of activity that already dominate the curriculum, such as competitive games, which feature heavily at her

school, speaks to the crowded nature of the PE curriculum and the continuation of historical practice in curriculum composition. Her comment that LS would likely replace "something like gymnastics or dance" (Poppy – interview) hints at the cultural-discursive and social-political arrangements that govern much PE practice. In schools like Poppy's, where traditional, gendered, competitive sports dominate, activities like gymnastics or dance (often viewed as less prestigious or masculine) are more likely to be sacrificed.

The historical dominance of traditional sports in PE has long been a topic of critique in educational literature (Banville et al., 2021; Silverman, 2017). PE curricula in many countries are heavily influenced by social constructions of masculinity and competition, leading to a disproportionate focus on sports like football, rugby, netball and hockey. These sports are often seen as embodying the "true" spirit of PE, while activities like dance, gymnastics, and LS are often marginalised.

This bias is reinforced by the social-political arrangements that shape decision-making within schools. The dominance of competitive sports is often upheld by broader societal values that prioritise competition, discipline, and physical prowess (Aggerholm et al., 2018); this is particularly true in Poppy's school, which has a proud tradition of competitive fixtures, local and national success, and a focus on traditional competitive sports. The extract below from the department webpage reinforces this traditional view.

“The curriculum is supported by an outstanding level of extra-curricular provision, allowing students to develop the multitude of benefits competitive sport offers. In addition to a thriving set of House Sport competitions, team practices occur at lunchtime and after school with many midweek and Saturday fixtures against both state and independent schools.” (Park School, dept web page)

In this context, the introduction of LS can be seen as a challenge to these deeply ingrained values, which seems to resonate with the points raised in Poppy's interview. Without a clear vision of how LS can complement or enhance traditional sports, teachers may struggle to justify their inclusion in an already crowded curriculum. This links closely to Kotter's Step 3: Developing a Vision and Strategy, which emphasises the need for a coherent strategy that integrates new initiatives into the existing curriculum.

In addition, the crowded nature of the curriculum can create practical challenges for teachers. With limited time and resources, it can be difficult to introduce new activities without sacrificing others. This issue is particularly pronounced in schools that adhere to a rigid PE timetable, where each term or semester is dedicated to specific sports (such as in Poppy's

school). In these environments, teachers may feel pressured to prioritise traditional sports that are seen as more important or valuable. This dynamic underscores the importance of Kotter's Step 7: Consolidating Gains and Producing More Change. Schools that successfully implement LS or adopt more student-centred ways of delivering existing content (such as MPE) must find ways to sustain these activities/approaches over time, ensuring that they become an integral part of the curriculum rather than a short-lived experiment.

8.3 - Chapter Summary

In conclusion, implementing LS in PE presents a multifaceted challenge shaped by a complex interplay of cultural-discursive, material-economic, and social-political factors. This chapter has illuminated the barriers and enablers that teachers encounter as they seek to integrate LS into the curriculum using practice architectures and Kotter's 8-Step Model of Change.

The initial reluctance from heads of PE to embrace change, despite long-standing calls for innovation, underscores the deeply embedded cultural-discursive practices that prioritise traditional sports over newer, potentially more inclusive activities, such as LS. This resistance aligns with Kotter's first step, "Creating a Sense of Urgency", and highlights the difficulty in generating momentum for change when some educators do not immediately perceive a need to deviate from established practices despite both research evidence and localised issues with pupil engagement and enjoyment of the subject.

However, this chapter has also demonstrated that departmental ethos can either obstruct or support curriculum innovation. Where departments foster an open and supportive environment for experimentation, as in Robert's case, there is a greater likelihood of overcoming these barriers. In contrast, departments that cling to tradition, as illustrated by Poppy's remarks, face more significant challenges in shifting their cultural-discursive practices to accommodate new activities like LS. This dynamic reinforces the importance of fostering a departmental culture that supports change, aligning with Kotter's emphasis on building a guiding coalition and enabling action by removing obstacles.

Teacher competence and the availability of resources also emerged as key material-economic factors influencing LS implementation. The lack of training and professional development opportunities in LS, both within initial teacher-teacher education and in career development opportunities, has left many teachers feeling underprepared, and financial constraints further

limit schools' ability to invest in new equipment or training courses. Addressing these issues will require both a commitment to targeted professional development and creative approaches to resource allocation, as suggested by Kotter's step of Empowering Broad-Based Action.

Moreover, the overcrowded PE curriculum in some schools and the dominance of traditional sports create practical barriers to integrating LS, where some difficult decisions need to be made. Schools that prioritise competitive sports may struggle to find space for LS, reflecting the broader social-political structures that maintain traditional hierarchies within the curriculum. This further emphasises the need for a clear vision and strategy to incorporate LS (or any other innovation) into the existing framework, as proposed by Kotter's model. It may be that seeking to influence a shift in pedagogies may be another step in the right direction that offers those resistant to letting go of traditional activities another avenue to improve pupils' experiences.

However, the use of both Practice Architectures and Kotter's 8-Step Model provides a robust framework for understanding and addressing the challenges of implementing LS in PE. Using Practice Architectures and Kotter's 8-Step Model provides a comprehensive framework for understanding the complex factors influencing the implementation of LS in PE. Practice Architectures sheds light on how cultural-discursive, material-economic, and social-political factors shape the way teachers engage with LS, highlighting the barriers they face in integrating these activities into traditional PE settings. By acknowledging these factors, schools can better understand the challenges that teachers experience when trying to implement change.

On the other hand, Kotter's 8-Step Model of Change offers a practical roadmap for addressing these challenges and enabling teachers to introduce LS successfully. By creating a sense of urgency, building coalitions, communicating a clear vision, and removing obstacles, teachers may have greater success in making meaningful changes that ultimately benefit all students. Both frameworks offer valuable insights into the processes and structures that need to be in place to support the adoption of LS, making the subject more inclusive, innovative, and relevant for the modern PE landscape.

This closing reflection highlights that, while the path to meaningful change in PE is not without its obstacles, the frameworks explored in this chapter offer practical tools for

overcoming them. By embracing these insights and continuing to adapt, schools can ensure that LS become an integral and valued part of the PE landscape.

Chapter Nine – Being a Teacher-Researcher

This chapter aims to critically reflect on my role as a teacher-researcher within the study. Since the delivery of the interventions and data collection have passed, I will use my longer-term reflections on being a teacher-researcher and draw on data from the lesson reflections that speak to my immediate feelings during the delivery of the intervention units. The aim of the chapter is two-fold: firstly, to build on my positionality and reflexivity throughout the study in the hope of contextualising some of the overall findings. Secondly, I aim to offer some guidance to future teacher-researchers, not just within the sphere of PE but also more broadly within education settings. The chapter is split into four sections, reflecting the sub-themes drawn from the data (lesson reflections and teacher interviews) and my longer-term reflections since the intervention delivery and data collection.

9.1 Being Accepted - The Insider-Outsider

The role of the teacher-researcher within this study was unique. Rather than being a practising teacher working in a school setting, I was a teacher-educator, coming into schools to deliver the interventions and collect data from my substantive role at a university. This put me in the initial position of being an outsider to the research context and most likely being viewed as an expert in PE teaching by those in the school. Ericsson et al. (2018) highlight experts as demonstrating superior reproducible performance on relevant tasks in a domain. I still feel uncomfortable pitching myself as a PE expert. The more you know, the more you become aware of what you do not know. You also become aware that knowledge is often contextual and changes with time. So, whilst the teachers and departments I was working with clearly had some faith in me, I was always keen to maintain that this was an experiment, things may go wrong, and we would work together throughout the project to try and make it as positively impactful as possible.

Researcher credibility was essential to get the research off the ground. I needed to be credible as both a teacher (of the classes) and as a researcher. My biography no doubt helped here. I had been a PE teacher, and latterly, a head of PE in the county from 2005-2014, and although during that time, I only had limited contact with the research sites and their staff, they would have been aware of my history of teaching and leading PE. I had then been a teacher-educator within the local university for 8 years prior to the project starting. Again, this likely helped with my credibility as an expert in the field or at least someone who had some reasonable ideas. Presenting to both schools in greater depth after they had shown an initial interest in

the project was a critical opportunity for me to enhance my credibility further, increasing the likelihood of access to classes and teachers. During these initial meetings, I was aware I needed to show a comprehensive level of detail in my project plans. Whilst I could not guarantee pupil reactions to the delivery of the units, I could show detailed and careful planning, research-informed rationales and a comprehensive overview of safety and safeguarding as well as the project timeline and responsibilities of all parties involved. These meetings were crucial; had I not convinced the heads of PE at each school that the project had been well-planned, had potential benefits for all stakeholders and would be appropriately managed throughout, then the project would have stalled. Heads of PE departments often act as gatekeepers to PE research in schools due to their authority over curriculum decisions, departmental priorities, and resource allocation. Their willingness or reluctance to allow access for research is pivotal, as it directly influences the feasibility of conducting studies, the availability of participants, and the integration of innovative practices into the PE environment. This is lesson one for any external researchers looking to run projects in schools – you must be able to communicate a thorough and well-planned overview of the project. Given that I was presented with the privileged opportunity to work directly with their pupils, this was even more important. Action-research projects directly working with pupils pose a greater level of potential risk for the schools. Therefore, diligent preparation and careful articulation of the project are paramount.

The above speaks to me positioning myself as an insider, one of them; despite not teaching in schools for some time, I still saw myself as a PE teacher and wanted the school staff to see me as one of them. This desire to be “one of the team” is evidenced in the first reflection from each of the units.

“I was a little apprehensive before the lesson; whilst I know a good amount regarding the content and pedagogies I am looking to implement, working with a new group is always somewhat of an unknown, and I wanted to set a good impression with the pupils and for the staff in the department” (Parkour, Reflection 1)

“Joel was excited about the unit and said the pupils had been chatting about it yesterday and seemed to be looking forward to it. I was a little apprehensive about new groups, new settings, new colleagues – I wanted to make a good first impression” (CrossFit/Kickboxing Reflection 1)

The apprehension evident in both quotes can be linked to the idea of belonging in a new environment. The teacher-researcher is not just delivering a lesson/unit but is temporarily embedded in the school's culture. This role required me to navigate existing dynamics,

understand the routines and expectations of the department, and demonstrate that I can adapt and fit into their contexts.

The concern for making a good impression ties into the need to be accepted as part of the team, not merely as an outsider running an isolated project. This dynamic is essential because, in school-based action research, collaboration between colleagues often determines the success of any new initiative or research intervention.

However, it would be remiss of me to think that I was merely seen as “one of the team.” Of course, I was an outsider in some respects. This was advantageous. I could speak freely with both the teachers directly involved in the intervention and the wider staff teams within each school and, to some extent, the pupils. I used this outsider position to my advantage when chatting with a group of girls in the CrossFit/Kickboxing lesson who commented on their kit.

“Working with one group of girls it became apparent that their PE kit (skirt) restricted their choice of exercises as it wasn’t appropriate for the bear crawls they wanted to do. As a father of two daughters, this really hit home. We must do better. I mentioned this to Robert after the lesson.”

This was an excellent example of where my position as an outsider had the potential to make a real impact. I was aware of issues impacting girls' enjoyment and engagement in PE (e.g. Mitchell et al., 2015), and this gave me a nice link with Robert to prompt him (and the department) to give this some thought. Here, my position as an outside expert gave me the confidence and potential influence to have a direct positive impact or at least prompt some thinking.

Poppy also commented on how she found working with an outside expert beneficial.

“I really enjoyed it and also like, getting the lesson plans so I could see, like, how the unit would flow, but also watching you do it and understanding like, how to set things up and understanding what areas of safety you might then be concerned about, and also then like, almost the independence that you gave them, seeing how that worked, 'cause I think that was really interesting.” (Poppy, Parkour, Teacher Interview)

Comments such as this gave me confidence in my position as an outside expert. It was good to know I was bringing something new to the schools and to the teachers that may have a lasting impact. Moments such as this, I hoped, further enhanced my credibility, not only with the staff but also with the pupils.

However, I probably spent much of my time occupying the space between being an insider and an outsider, or at least consistently switching between the two roles at different times

when working in the schools. The overarching connection between these two areas that helped me navigate this tricky space was the notion of being professional in all that you do. This came from my communication with schools, pupils, parents and teachers, both before, during and after the interventions. I always arrived early at the schools, well planned, with resources ready and appropriately presented (typically in my university sports kit); I made a particular effort to engage professionally with school staff, from the receptionist to the other teachers in the department. I also spent time discussing my planning and decision-making with the teachers, often seeking their views as equals rather than positioning myself as an authority figure. I wanted to show a degree of professional vulnerability (see Durden-Myers & Mackintosh, 2022) and sought their views as experts within their school; I certainly held the view that I could learn as much from them as they could from me. Elements of this are contemplated further in the subsequent sections.

9.2 The Value of Relationships

Several relationship dynamics were crucial to implementing the action research project effectively. The first and perhaps most important one of these was with the pupils I was teaching and collecting data from. One of the primary goals throughout the delivery of the intervention, but particularly during the early lessons, was to build a rapport with the group. Most of the pre-unit communication with pupils was through the gatekeeper teachers or head of PE. In hindsight, it would have been valuable for me to come and observe and assist in some of their PE lessons prior to the intervention to gain a better understanding of the groups and individual pupils. However, logistics would have made this difficult. Fortunately, the time spent with pupils was long enough to forge good working relationships and begin to understand the groups well enough to implement the unit delivery and subsequent data collection. You can see in the reflections below that this relationship-building was a crucial focus in the early lessons.

“During this section, I attempted to get around all the groups and interact with them, get to know names and develop some rapport; this worked well to some extent, but the pupils were keen to be active rather than talk (probably a good thing). I was, however, aware that relationship development is an important part of MPE, so this will be something to keep working on throughout the unit”
(Parkour, Reflection 1)

“I felt I was working quite hard in this lesson, being busy, positive and aiming to work with each group for a short period and get to know some names and asking them some questions about the activity (had they done this before? What was their

favourite activity in PE?). I was getting good vibes (smiles, high activity levels, laughs) from most groups” (CrossFit/Kickboxing, Reflection 1)

Relationship building has been seen as essential to effective research (Mooney-Doyle & Deatrick, 2023). The relationship building here benefitted me in two ways. First, we know that teacher-pupil relationships significantly impact pupils' enjoyment of PE (Ahmadi et al., 2023; White et al., 2021; Whitehead, 2021). Equally, the better relationships I built with the pupils during the intervention's teaching, the more productive, honest, and detailed they were likely to be within subsequent focus groups (Alder et al., 2019; Liamputtong, 2016). Adopting a teaching approach aligned with MPE meant that fostering these relationships came quite naturally throughout the lessons. Whilst it can be hard to judge, I believe the depth and honesty shown in the focus group data is evidence that fostering good working relationships with the pupils was critical to eliciting rich data.

The relationships built with Poppy and Robert (GKTs) were equally crucial to the research project. Communication with the GKTs prior to and during the project was crucial in managing the project's logistics and generating detailed and reliable data. I was particularly mindful that the relationship I built with the GKTs was not seen as hierarchical; I did not want them to perceive me as the expert coming in to show them how it is done. I had to give them the freedom to say it how it was seen, respect their contextual expertise and genuinely value their opinions. While the formal data collection in their interviews hopefully demonstrates that I had cultivated these relationships effectively, the most crucial part of the relationship development came through the mini-cycles of action research that happened around each lesson. Taking 5 minutes to chat through each lesson before delivery and taking a few minutes after each lesson to see what they thought when observing were all helpful in both shaping the intervention and developing our relationships. Evidence of these types of exchanges can be seen in the reflection extract below.

“Positive feedback from Robert, he is pleased with the motivation/engagement levels, sees some of the less sporty pupils engaging well and seeming happier than in normal PE lessons. Pleasing. He suggested a higher level of challenge for some pupils, which I will implement in the next lesson.” (CrossFit/Kickboxing, Reflection 5)

By acting on Robert’s feedback of a higher level of challenge for some pupils in the next lesson, I achieved two key objectives. Firstly, the quality of the intervention would be

enhanced, specifically connected to a key aspect of MPE. Secondly, in acting on his feedback, I demonstrated how I valued his opinion, evidencing the non-hierarchical nature of our relationship. Subsequent to working in partnership throughout the intervention, it also helped to cultivate a relationship that would serve me well with both GKTs when it came to the interviews, where building rapport and a trusting relationship is critical to generating rich and reliable data (Arksey & Knight, 2009; Lin, 2016; Siedman, 2006).

My final reflections on each unit reflect the value I placed on my relationships with both the pupils and teachers.

“Three main feelings came to the fore after the lesson: I was proud, relieved and a little sad.” (CrossFit/Kickboxing, Reflection 7)

“Standing back for a minute today and watching the pupils, I was bursting with pride, I was going to miss this lot.” (Parkour, Reflection 6)

These quotes demonstrate rather well the emotional commitment involved in implementing a real-world action research intervention with real people. I set out to do this project because I care; I want to improve pupils' experiences of PE. To do that, a commitment to building relationships is a crucial ingredient.

9.3 Walking the Talk

To give the intervention the best chance of success, or at least for it to be judged in its best light, I was acutely aware that I needed to plan and deliver suitable lessons. I also pitched myself to the schools as an expert in PE pedagogy and lifestyle sports, combining content knowledge and pedagogical knowledge (Shulman, 1986). I was confident in my abilities here, but there is always an element of the unknown when walking into a new school with new groups. I was fully expectant that I would make some mistakes along the way, but I wanted to stay true to an MPE approach that sat well with my philosophy towards teaching.

To effectively “walk the talk”, a few key points that may help future intervention researchers came to light. Firstly, your preparation serves as your safety net, and it includes unit plans, risk assessments, lesson plans, and resources. I was diligent in creating and providing all these critical pieces of documentation and sharing them with the schools in a timely manner. This meant that before the intervention even started, the schools had a good idea of what was to come and knew careful consideration had been given to sequencing learning, meeting all safety requirements, and providing them with an overview of the unit's content and likely outcomes. Ahead of each lesson, I would email plans to the GKTs along with any resources at

least 24 hours prior to delivery. This gave the schools an overview of learning activities and assured the teachers and schools that I had given great thought to the delivery of each lesson.

Secondly, the actual lesson delivery had to be effective. The quotes below, taken from lesson observations, serve as evidence that the teaching within the lessons could be classified as effective, i.e., leading to visible learning gains in the pupils.

“All pupils were able to access the task at an appropriate level, and many were making rapid progress.” (Parkour, Lesson observation 3)

“All pupils showing some progress from where they started the unit and they all have a good grasp of the key movements. I can see some of the usually weaker pupils making good progress and enjoying the lesson” (CrossFit/Kickboxing, Lesson Observation 7)

Defining effective teaching is complex; however, a recent review by Coe et al. (2020) identified four key areas of effective teaching that can be seen within the evidence above. Firstly, they identified that effective teaching relies on both deep content knowledge and the ability to deliver it in an accessible way, adapting to different learners’ needs. The first quote above demonstrates the teacher’s strong understanding of parkour fundamentals and pedagogical strategies, enabling the lesson to be adaptable for pupils with varying levels of skill. This shows awareness of adaptive teaching, as all pupils can participate meaningfully, which is central to effective pedagogy. The final quote above highlights the teacher's pedagogical content knowledge in structuring exercises with varied difficulty. Allowing students to select an appropriate level demonstrates a deep understanding of both the content (correct technique, variations of movements) and effective teaching strategies to foster independent learning.

The second element of effective teaching highlighted by Coe et al. (2020) and also reflected in MPE and SDT work (e.g. Ahmadi et al., 2022; Cardiff et al., 2023), is creating a supportive environment; this is especially important in PE where both cognitive and physical challenges exist. The second and third quotes above provide good examples of this within the intervention. The environment in the CrossFit/Kickboxing class appears inclusive and encouraging, particularly for pupils with lower prior attainment. This indicates that the teacher has fostered a positive atmosphere where all students feel capable of improvement and success, which is essential for sustained motivation and enjoyment. Within the parkour lesson observation, the presence of guided independence suggests that the teacher provides enough support to make students feel confident but allows them the autonomy to work at

their own pace. A supportive environment is further reinforced by the end-of-lesson quiz, which likely serves as a positive and non-punitive way to reinforce learning and celebrate their understanding.

Maximising opportunities to learn through effective classroom management was identified as the third critical factor of effective teaching by Coe et al. (2020). Good classroom management ensures that students remain focused on learning objectives without unnecessary disruptions. The first and final quotes above speak to this point. By enabling pupils to access tasks tailored to their levels, the teacher minimises potential behavioural issues that arise from frustration or boredom, which can be barriers in PE settings. This structured differentiation helps keep all students engaged and progressing. Within the final quote, establishing clear, structured tasks with set time limits encourages students to stay on task and maximise their learning within a controlled time frame. Setting duration helps maintain a fast pace that likely limits downtime and maintains focus, demonstrating essential components of effective classroom management.

The final aspect of effective teaching is maximising hard thinking (Coe et al., 2020). Encouraging students to engage in hard thinking goes beyond physical challenges, asking them to process, analyse, and apply information. The coaching role described in the final quote highlights this. Assigning students a coaching role adds a cognitive layer that requires them to evaluate movements and communicate constructive feedback critically. This builds not only an understanding of technique but also skills in analysis and articulation, a key component of higher-order thinking.

Much of the observation data and personal reflections highlighted aspects of effective teaching. I believe I certainly did “walk the talk”, giving the intervention the best opportunity to be successful; my background, skillset and experience likely played a critical role in this. However, I am realistic and self-critical, so I acknowledge that none of the lessons were perfect. At times, I struggled with time management, particularly in the CrossFit/Kickboxing lessons. My knowledge of individual pupils was obviously weak (being a new face), so my ability to personalise learning was, in some instances, challenging to execute. Some tasks did not always work quite as I had planned, so I had to respond dynamically to address any issues. Here, my experience and knowledge served me well in observing and responding appropriately, which I would identify as a crucial skill for any teacher. I believe I gave good credit to being a “pracademic” with one foot firmly in each camp (school and university

context), providing a good example of how a research-informed teaching approach can be operationalised at the coal face.

9.4 Encouraging Others

As a teacher educator and an active researcher, I see a large part of my role as encouraging others to adopt new ways of thinking and acting. This was also a crucial motivation for taking on this research project. The impact I could have through the intervention may not have been widespread (only working across two schools), but that does not mean that it could not be profound. You could argue that in the sampling of schools and teachers, I had a captive audience who had already shown some inclination for change by agreeing to take part. However, in working closely with Poppy and Robert and with their departments, I had the opportunity to help their development and encourage them to at least critically reflect on their own teaching and curriculum design or, more broadly, influence the departments to think (and possibly act).

Within their interviews, both Poppy and Robert alluded to the fact that they had been encouraged to try new ideas linked to both lifestyle sports and MPE. When asked if observing the lessons had encouraged him to look at other new ideas in the future, Robert commented:

“Yes, definitely. Erm, my conversation with John, head of the department, is that there is definitely a place for it. ... I definitely see a, a big value of, of that within, within the curriculum.” (Robert, Teacher Interview, CrossFit/Kickboxing)

He also commented on the value he saw in the MPE approach:

“In terms of this meaningful PE, I think that will be a good, good vehicle to obviously move that forward and, and have a new focus, erm, and drip feed that in so it becomes more evident within our practice.” (Robert, Teacher Interview, CrossFit/Parkour)

The quotes above show his intention to change his own practice and influence others within the department at his school. This speaks to the project's success in this setting. Many may define research success as having a considerable impact on a large audience, but in this instance, with a small-scale project, shifting the thinking of one teacher is a great sign of the intervention's impact.

Poppy was equally moved by the experience of being involved in the research project:

“I really enjoyed it and also like, getting the lesson plans so I could see, like, how the unit would flow, but also watching you do it and understanding like, how to set things up and understanding what areas of safety you might then be concerned about, and also then like, almost the independence that you gave them, seeing how that worked, 'cause I think that was really interesting” (Poppy, Teacher Interview, Parkour)

Further commenting on the activity itself:

“I think where it brings that more enjoyment and probably, 'cause they view it as something that maybe they do more in their spare time... Which I think is great, and that's what you want” (Poppy, Teacher Interview, Parkour)

Similar to Robert, Poppy had been encouraged by her observations of both the activity and the pedagogies associated with it. Whilst she did not specifically commit to future action as much as Robert, she had seen value in both the activity and the teaching approaches.

While influencing the two teachers directly involved in the study was clearly important and, to some degree, a sign of small-scale success, reaching a larger audience and disseminating the research further is, of course, important. I have done this through several means, including local, national, and international conference delivery, publications in peer-reviewed journals and books, and more creative means such as podcasts and blogs. Table 9.1 provides an overview of these dissemination activities.

Table 9.1 Dissemination Activity

Dissemination Activity (Year & Details)	APA Reference
Publication of literature review in an academic journal	Wintle, J. (2022). PE and physical activity promotion: lifestyle sports as meaningful experiences. <i>Education Sciences</i> , 12(3), 181.
Sharing of project rationale and associated work with trainee teachers in Webinar/Podcast Format	Wintle, J. (2023). <i>Lifestyle sports in PE: a culturally relevant curriculum for the 21st century?</i> [Audio Podcast Episode 287] Playing with Research in Health and PE. May 2023. https://open.spotify.com/show/3baOVZaQYphiCtw4hIrNrZ
Sharing of project findings and practical workshop at the PE Scholar Pedagogy Conference 2023	Wintle, J. (2023). <i>An Introduction to Parkour Through Meaningful PE</i> . PE Scholar Pedagogy in Practice Conference. Gloucestershire, UK.
Sharing of project findings and practical workshop at	Wintle, J. (2023). <i>An Introduction to Parkour in Primary PE</i> . MoveMore PE Conference. Cheltenham, UK.

the MoveMore Conference 2023

Sharing of project findings on the PE Insights Podcast with Nathan Walker	Wintle, J. (2024). <i>PE Insights Episode 22: Jordan Wintle – Meaningful experiences in PE through lifestyle sports</i> [Audio podcast episode 22]. https://open.spotify.com/episode/0q0Klji0lJO7Ije8uvGYwX
Sharing of project findings at the 2024 AIESEP Conference in Jyväskylä, Finland	Wintle, J. (2024). <i>Changing the Game: Implementing Lifestyle Sports in Schools Through Meaningful PE</i> . AIESEP Conference. Jyväskylä, Finland.
Blog entry for PE Scholar	Wintle J. (2024). <i>What Can Physical Education Learn from the Olympics?</i> At www.pescholar.com/insight/what-can-physical-education-learn-from-the-olympics/
Sharing of project findings at the Fortius PE Conference 2024.	Wintle, J. (2024) <i>Meaningful PE</i> . Fortius Primary PE Conference, Cirencester, UK.
Sharing of project findings at the Association for PE National Development Day	Wintle, J. (2024). <i>Implementing Meaningful PE through Lifestyle Sports</i> . Association for PE Development Day. Coventry, UK.
Publication of findings from the project in an edited book.	Wintle, J., Durden-Myers, E. & Lewis, K. (2025) Using lifestyle sports to create a ‘meaningful’ PE experience. In Leeder, T. & Beaumont, L. (2025) <i>Teaching and coaching lifestyle sports: Research and practice</i> . Routledge.

I have also created a third-year university module at the University of Gloucestershire connected to the project that seeks to prepare trainee teachers to deliver a range of lifestyle sports using the MPE approach. Further dissemination of the project findings is planned through the publication of additional data from the study within academic journals, particularly raising the voices of the pupils involved in the research. I also recently had an abstract accepted for the AIESEP 2025 Conference, where I will share a more detailed analysis of the benefits and challenges of implementing MPE. I am confident that through the dissemination already conducted and the planned further sharing of project findings, I have fully embraced a commitment to encouraging others at both a local, national and international level.

9.5 Chapter Summary

In summary, the unique position of a teacher-researcher, particularly balancing insider-outsider dynamics, played a significant role in the research process. Despite being an educator at a university rather than a full-time school teacher, credibility as both teacher and researcher was essential. Building trust with the school community, detailing the project, and preparing meticulously were fundamental to gaining acceptance and demonstrating professionalism.

Relationship development was essential within the project and should be seen as fundamental for others embarking on educational action research projects, particularly when coming into the school as an outsider. Strong connections with pupils facilitated more effective teaching and data collection, while collaboration with the gatekeeper teachers helped align the intervention to school-specific contexts. By valuing their feedback and ensuring a non-hierarchical relationship, the teacher-researcher fostered trust and encouraged open dialogue that not only enhanced the intervention through the action research cycles but also helped to elicit rich and honest data in the teacher interviews.

To ensure the success of the intervention, I focused on delivering high-quality lessons in line with my philosophy of MPE, presenting myself as an expert in PE pedagogy and lifestyle sports. Key preparation steps included thorough lesson planning, risk assessments, and resource sharing, as well as establishing credibility and trust with the schools. Lesson observations showed evidence of effective teaching, marked by adaptability, a supportive environment, strong classroom management, and the encouragement of critical thinking, aligning with the four key teaching elements outlined by Coe et al. (2020). While I encountered some challenges in areas like time management and personalising learning for new students, I remained adaptable and responsive, demonstrating my commitment to a well-rounded teaching approach.

In my dual role as a teacher educator and researcher, I aimed to inspire others to adopt new pedagogical approaches or take critical approaches to their future practice, perhaps even encouraging others to complete research in this area. Working with teachers Poppy and Robert, I influenced their perspectives, encouraging them to integrate lifestyle sports and MPE into their practice. Robert expressed intentions to incorporate these elements into his school's curriculum, while Poppy appreciated observing new teaching strategies. Beyond individual impact, I disseminated findings widely through publications, conferences, podcasts, and educational materials. This included creating a university module to prepare

future teachers and planning further presentations to extend the research's influence locally and internationally. This commitment to encouraging others should be seen as essential in most forms of research, but certainly within educational action research, which aligns with the pragmatic research philosophy adopted in the project.

Finally, emotional investment and commitment to improving pupils' PE experiences are paramount and sit at the centre of all aspects of the research.

Chapter Ten – Conclusion

The previous chapters within this thesis have explored the implementation of LS within PE, utilising the MPE framework as an underpinning pedagogical approach. Utilising a multi-mixed method approach aligned with a pragmatic research philosophy has allowed the triangulation of data sets to offer a comprehensive interpretation of the findings that meet the research objectives set out during the introduction chapter. This final chapter concludes and summarises the research findings and is structured into the following sections to provide final outcomes and reflections from the study:

- Summary of findings (relating to research objectives)
- Contribution to practice
- Research evaluation
- Research recommendations and next steps
- Researcher reflections
- Chapter and thesis summary

10.1 Summary of Findings

The overall aim of the project was to explore the potential of integrating LS within PE to enhance meaningful experiences for young people while identifying the barriers and enablers to sustainable curriculum change. Findings demonstrated that LS could foster engagement through MPE features like fun, challenge, and social interaction, and potential new features such as novelty. The intervention particularly benefitted traditionally disengaged pupils (specifically non-sporty types and girls). However, the implementation of LS is constrained by cultural resistance, curriculum structures, and resource limitations. Success depends on supportive departmental ethos, targeted professional development, and strategic planning. Applying practice architectures and Kotter's change model, the study offers a framework for embedding LS in PE, highlighting both the potential and challenges of meaningful curriculum reform.

Objective 1: Critically analyse the views of pupils as to what extent current physical education provides elements of meaningful experiences.

In Chapters 5 and 6, pupils shared mixed reviews regarding their experiences in normal PE, with many expressing that it often lacked meaning, particularly for non-sporty pupils and

girls, aligning with previous findings in this area. While some pupils enjoyed PE due to features like social interaction and fun, others felt disconnected from the curriculum, particularly those who did not identify with mainstream sports. These pupils often found traditional PE activities, which predominantly focus on competitive team sports, to be irrelevant to their lives, leading to disengagement and frustration. This disconnect was especially evident among girls, who often reported feeling marginalised or excluded from the highly competitive nature of traditional PE.

Pupils who were less inclined toward sport frequently found that traditional PE lacked personal relevance, a crucial component of MPE. Many described their PE experiences as repetitive (year-on-year) and lacking challenge, especially when the activities offered were not aligned with their interests or abilities. This sense of irrelevance was a critical barrier to engagement, particularly for those who struggled with the more physical demands of traditional sports or those who felt self-conscious about participating in a competitive environment, often due to feelings of incompetence. This feeling of detachment and lack of meaning was particularly pronounced for non-sporty students, who frequently found themselves on the periphery of activities, unable to connect with the content being delivered.

In contrast, the findings showed that when pupils' psychological needs were met by having autonomy, feelings of belonging (relatedness) and competence, pupils reported a significantly higher sense of engagement and enjoyment, aligning with previous SDT studies and the recent work implementing MPE in other contexts. However, the feedback made clear that the traditional PE curriculum and controlling pedagogies often failed to offer such opportunities, creating a gap in meaningfulness for many pupils. This gap was particularly problematic for girls and non-sporty pupils, who were frequently alienated by the dominance of competitive team sports and the lack of activities that appealed to a broader range of interests.

These findings align with research suggesting that PE's cultural-discursive nature, with its emphasis on traditional sports and performance-orientated teaching approaches, inadvertently excludes certain groups, particularly those who do not identify as “athletic” or who find competitive sports intimidating. These pupils often felt that PE did not cater to their interests, needs, or abilities, which contributed to feelings of disengagement and a lack of meaning in their experiences.

In summary, while some pupils found meaning in traditional PE through the existing features of MPE (particularly social interaction and fun), a significant number (especially those less inclined towards sport and girls) reported a lack of relevance, challenge, and personal connection to the activities. This highlights the urgent need for curricula and pedagogical change to make PE more meaningful, inclusive, and engaging for all students, particularly those who have traditionally been marginalised in the PE context.

Objective 2: Evaluate the effectiveness of a lifestyle sports intervention on the creation of potentially meaningful experiences for young people.

Chapter 6 provides strong evidence that the introduction of LS can positively transform the PE experience for many pupils. Quantitatively, the parkour unit showed significant improvements in many key areas of MPE (competence, fun, challenge, and overall meaning). At the same time, qualitative data revealed that pupils valued the activities' accessibility and novelty, adding further weight to the argument that novelty could be an additional feature of MPE. Female pupils responded positively to the non-competitive and inclusive nature of both parkour and CrossFit/Kickboxing, highlighting these activities' potential to address gender disparities in traditional PE.

The teachers involved in the study were particularly pleased to see the intervention's impact. Robert, for instance, expressed excitement about incorporating LS into his school curriculum, while Poppy appreciated observing innovative teaching approaches that aligned with the organic learning inherent in these activities. Teachers noted that the activities fostered confidence, enjoyment, and active participation, especially among pupils who were less inclined to engage in conventional sports.

Notably, the findings highlight that the combination of activity-specific pedagogies and MPE principles (e.g., choice, non-competitive environments, and challenge) was crucial to the intervention's effectiveness alongside the nature of the activities themselves. The emphasis on a mastery-focused ethos within LS, where personal progression is prioritised over external competition, played a key role in fostering engagement, particularly among pupils who traditionally disengage from PE (non-sporty pupils and girls). By shifting the focus away from performance-based hierarchies and towards individual development, LS provided an inclusive space where pupils of varying abilities could experience success, build confidence, and develop intrinsic motivation. The lessons learned suggest that LS can create meaningful, enjoyable experiences that engage a wider range of pupils, helping them to see PE as relevant and enjoyable, potentially paving the way for greater engagement in PA in the future. Novelty

emerged as a potential new feature of MPE, aligning with recent work building on the original features. Furthermore, the study underscores the potential of LS to challenge entrenched PE norms, offering a sustainable alternative that aligns with contemporary understandings of youth PA engagement.

Objective 3: Critically analyse the barriers and enablers to change to integrate lifestyle sports within physical education curricula.

Chapter 7 explored the complex barriers and enablers to implementing LS in PE, showing how cultural-discursive, material-economic, and social-political factors interplay to shape the success of such interventions and any sustained changes in practice. Resistance to change was particularly evident among some PE leaders, who often prioritised traditional sports. This reflects long-standing cultural norms and underscores the challenge of creating a sense of urgency for innovation when conventional approaches are often seen (through a blinkered lens) as sufficient. The insights from teachers like Poppy highlighted the difficulty of shifting entrenched mindsets, even when pupils clearly benefit from new approaches.

In contrast, departmental ethos and leadership were key enablers in schools with supportive environments. Robert's department, for instance, embraced the intervention (and similar changes), creating space for experimentation and innovation. This aligns with Kotter's steps of building coalitions and enabling action, showing how a positive ethos can empower teachers to overcome systemic barriers and foster meaningful change.

Material-economic factors also played a significant role. The lack of professional development opportunities in LS left some teachers feeling underprepared to deliver them, while financial constraints limited access to resources like equipment and training. Teachers and researchers alike emphasised the importance of targeted support to address these gaps, suggesting that systemic changes in initial teacher education, in-service professional development, resource allocation and curriculum planning are necessary to make LS a viable option.

These findings provide a compelling case for rethinking the structure and delivery of PE to ensure it is meaningful, inclusive, and engaging for all pupils. The study demonstrates that LS, underpinned by MPE principles, offers a viable and sustainable alternative to traditional, competition-dominated PE, particularly for disengaged pupils. By prioritising autonomy, challenge, and mastery-focused learning, LS has the potential to break down the barriers that

exclude non-sporty pupils and girls, fostering a more inclusive and lifelong engagement with PA.

However, the persistence of cultural resistance, entrenched traditions, and resource limitations suggests that meaningful change requires more than just introducing new activities - it demands a shift in pedagogical mindset, departmental ethos, and structural support. The application of practice architectures and Kotter's change model provides a roadmap for schools to navigate these challenges, highlighting that change is possible when PE departments cultivate an open, innovative culture and are supported with targeted professional development and resources.

Ultimately, this research challenges the status quo and presents LS as a catalyst for transforming PE into a more meaningful and accessible experience. If adopted at scale, this shift could play a crucial role in reshaping young people's relationships with movement and promoting lifelong physical activity beyond the school gates.

10.2 Contribution to Practice

A key marker of success for this professional doctorate is making a significant contribution to practice. This is slightly different from a traditional PhD, where a substantial contribution to knowledge is required. However, this study enables me to stake a claim that I offer something in both areas, detailed in the subsequent sections.

10.2.1 Developing Practice in Physical Education

The work here demonstrates the value of integrating LS into PE curricula to engage a broader range of pupils, especially those who are typically disengaged from traditional, competitive sports. The research provides practical insights into how these activities can create more meaningful and inclusive experiences for students, particularly girls and lower-ability pupils.

By combining MPE features with specific teaching strategies (e.g., democratic pedagogies, goal setting, and reflection), the study highlights how these approaches can be adapted to better meet the needs of all learners. The study presents a clear model for shifting from traditional competitive sports models to more inclusive, pupil-centred pedagogies. The insight into the application of MPE in a unique context (English education system, secondary-age pupils 11-13 years old) offers another validation of the MPE approach where the features and pedagogies associated with the approach not only provided a logical

framework to analyse current experiences of PE but also played a pivotal role in the positive outcomes of the intervention units.

The findings underscore how non-traditional activities, such as parkour and CrossFit/kickboxing, can create a more accessible and engaging environment for pupils who might otherwise feel alienated by conventional PE activities. The focus on inclusivity directly impacts practice by suggesting how PE can be transformed better to meet the needs of a diverse student body.

This research also makes a significant contribution to the critical dialogue on curriculum reform in PE. As the Department for Education in England embarks on its review of the curriculum and assessment framework, it is hoped that the insights drawn from this study, particularly those around the integration of LS and the promotion of meaningful PE experiences, will inform and influence the future direction of the national curriculum. In doing so, this work seeks to ensure that PE evolves to meet the needs of all learners, fostering inclusivity, engagement, and relevance in the curriculum for the generations to come.

10.2.2. Contributions to Physical Education Research

The study connects the existing literature on MPE with real-world classroom practices, thereby offering both an academic contribution to PE research and practical guidance for its application. This bridge between theory and practice enhances the study's relevance and impact in academic and educational contexts. This research was particularly novel in the landscape of recent MPE research as it prioritised the voices of the pupils in several data sources rather than relying on teachers'/researchers' observations and interpretations of pupil responses.

The exploration of non-traditional activities and the use of democratic pedagogies adds to the growing body of literature on alternative and innovative PE practices. The findings contribute to research by demonstrating how these pedagogies can increase student engagement, satisfaction, and inclusivity, particularly among groups that are traditionally less engaged in PE.

One of this study's key contributions to the field of PE research is the development of the MPE Questionnaire (see chapter four), a tool designed to quantitatively assess the extent to which PE experiences are perceived as meaningful by students. The MPE Questionnaire was

specifically developed to capture the complex, multidimensional nature of MPE experiences, as highlighted by the pupils in this study.

The questionnaire is grounded in the core features of MPE and the associated pedagogies. By framing these constructs in a way that can be quantitatively assessed, the MPE questionnaire offers a structured approach for researchers to measure these elements across various educational contexts. Whilst more widespread use is needed to validate the questionnaire fully, its day-to-day reliability and intra-item reliability within this study demonstrate its potential as a helpful research tool. This enables researchers to move beyond purely qualitative methods to gather reliable, objective, comparable data on the impact of PE experiences, thus offering a more comprehensive view of how PE experiences are perceived and potentially how they can be improved.

For the field of PE research, the MPE questionnaire represents a significant advancement. It potentially provides a prototype of a standardised method for evaluating meaningfulness that can be applied in different schools and educational settings and against varied PE curricula. Researchers can use the questionnaire to assess both traditional and innovative teaching methods, making it a versatile instrument for evaluating change (utilising the techniques demonstrated in this study) and enhancing our understanding of what makes PE meaningful for diverse student populations.

In summary, this research has made significant contributions to practice by demonstrating how PE can evolve to serve better all students, especially those who are traditionally marginalised. Within teacher education, the research provides insights into how PE teachers can adapt and enhance their pedagogies to create more meaningful learning experiences. Finally, in research, the study enriches the existing literature by offering practical applications for inclusive and engaging PE practices while also emphasising the importance of robust, multidimensional research methodologies.

10.3 Research Evaluation

10.3.1 Strengths

Traditionally, the focus has often been shifted initially to the limitations of research. However, it is also essential to acknowledge the projects' strengths. With that in mind, this section offers an overview of this piece of work's significant strengths.

Aligned with the pragmatic research philosophy, the use of a multi-mixed method approach to the research is a particular strength. The data generated from different methods, at different points within the research project, and from different stakeholders offer the opportunity to triangulate findings that add to the robustness of the research. Whilst the quantitative measures may have been subject to some degree of social desirability in pupil responses, the objectivity of the data leaves minimal room for researcher bias within the interpretation of this data.

The action research approach, whilst labour-intensive, offers the benefit of seeing the impact of the study at the coalface of the profession. This offers real-world applicability of the research findings. The use of two different pupil groups, each diverse in sex and ability, in different schools also aids the transferability of the research findings. A key part of the action research process is spending time within the populations you research. As such, the development of good working relationships with both pupils and teachers adds depth and rigour to the research. The data collection during and at the end of the interventions benefitted from these good relationships with the study participants, allowing a degree of comfort, familiarity and trust to help inform the focus groups and teacher interviews. This helped produce rich and detailed data that holds a higher level of trustworthiness because of the relationships fostered throughout the interventions.

Through its thoughtful design and execution, the research aligns with Guba's (1981) four criteria for assessing qualitative inquiry (as a mainly qualitative study): truth value, applicability, consistency, and neutrality.

To meet the truth value criterion, the study employed strategies to ensure credibility and authenticity. Prolonged engagement within schools allowed for trust-building and a deep understanding of the contexts shaping pupils' and teachers' experiences. Triangulation across multiple data sources, including pupil reflections, teacher interviews, and quantitative measures, strengthens the findings by corroborating insights from various perspectives. Reporting neutral and negative findings also helps meet the truth-value criterion. Reflexivity was integral as I critically examined my dual role as a teacher-researcher and acknowledged potential biases. Member checking with teachers and pupils further validated interpretations, while peer debriefing with supervisors added scrutiny and rigour. Detailed, rich descriptions of the intervention and its outcomes provided readers with a vivid understanding of the research context and participants' experiences.

The study addresses applicability by offering transferable insights for other educators and researchers. Rich, contextualised accounts enable readers to assess whether the findings are relevant to their own settings, aligning with the recommendations of Smith (2018), where the aim of mainly qualitative projects is not generalisability. Additionally, the emphasis on pupils' voices, particularly those of marginalised groups such as non-sporty pupils and girls, ensures the research has broader resonance for those seeking to create inclusive and MPE experiences.

Consistency is demonstrated through the systematic and iterative nature of the action research methodology. Cyclical processes of planning, intervention, observation, and reflection ensured that the findings were tested and refined throughout the study. Triangulation and transparency in documenting methodological decisions further enhance dependability, providing a clear audit trail for how conclusions were reached.

Finally, neutrality is achieved through reflexive practices and the careful handling of data. By openly acknowledging your positionality as a teacher-researcher and adopting strategies to mitigate bias, such as triangulation and member checking, the study prioritises objectivity and neutrality as much as possible. Peer debriefing with supervisors and the integration of multiple perspectives (pupils, gatekeeper teachers, and my observations) further ensures that findings are grounded in the data rather than subjective preconceptions.

10.3.2 Limitations

As with any research, it is right to be cognisant of the work's limitations. This aids interpretation and informs future research of a similar nature.

Transferability and scalability were two key areas that are potential limitations. While the study provides rich, context-specific insights, its findings may have limited generalisability beyond the participating schools. The unique dynamics of the schools, pupils, and teachers involved, as well as the focus on specific LS, may not fully represent other contexts, curricula, or cultural settings. The delivery of the interventions by the teacher-researcher did offer the intervention the best chance of success as an individual with a good depth of knowledge in both the content of the LS and the pedagogical approaches. However, this does limit the scalability of such interventions without significant professional development of other teachers or the advancement of initial teacher education acknowledged within the findings.

As a teacher-researcher, I may experience inherent bias, even though every effort has been made to adopt a neutral standpoint. This may occur particularly when interpreting pupils' and teachers' experiences. Despite reflexive practices and efforts to mitigate this through triangulation and member checking, the dual role may have influenced interactions and data interpretation. This confirmation bias is somewhat inevitable, given the central role of the researcher. However, the methods undertaken and the researcher's openness have attempted to limit this as much as is consciously possible.

The scope of the qualitative measures could also be viewed as a potential limitation. While the use of the MPE Questionnaire certainly adds value, its relatively new development means that its reliability and validity in different contexts require further testing. It should also be noted that without a control group for comparison, the results of the questionnaire could be potentially weakened. Additionally, the quantitative data provided a snapshot in a mainly qualitative study rather than capturing the full complexity of pupils' experiences. In this context, it is viewed as a valuable addition to the study findings.

One notable limitation of the study is that, in Cross School, the intervention was delivered during Tuesday PM enrichment time, rather than during specific PE time. This distinction may have influenced how pupils perceived and engaged with the activities, potentially affecting the authenticity of their responses in relation to PE. While the groupings, content and pedagogical approach remained consistent with PE, the slightly different contextual framing may have impacted the relevance, motivation, and perceived meaningfulness of the experience. This contextual factor warrants consideration when interpreting the findings and their applicability to mainstream PE settings. The context, however, was a very accurate replication of PE. This limitation is also a good example of how some departments are very protective of historical practices and often resistant to change.

Finally, the delivery of the interventions did not isolate either content (the activities) or pedagogy (informed by MPE), making it challenging to determine whether the nature of the activities primarily influenced observed outcomes, the pedagogical strategies employed, or a combination of both. While this integrated approach aligns with real-world teaching, where content and pedagogy are inherently intertwined, it complicates efforts to disentangle their individual impacts. It limits the ability to identify which element was more influential in creating meaningful experiences. However, this was mitigated to some extent by the conversations within the focus groups and interviews that allowed pupils and teachers to discuss the merits of both elements. Future research could address this by systematically

varying content and pedagogy across different groups to understand their distinct and combined effects better.

10.4 - Research Recommendations and Next Steps

Given the moderate scale of this research project in terms of the number of schools, classes, pupils, and teachers involved, it is unsurprising that the first recommendation for future research is that an increased volume of participants would help strengthen the calls for the integration of LS within PE. However, to be more specific, it would be helpful to look at the use of LS in more diverse contexts than the two schools used in this study. Future work should also consider the responses of specific pupil groups beyond the categories I have been able to analyse within the limits of this study (e.g. SEND, global majority pupils). Whilst there were crucial differences in the two schools in terms of pupil demographic, one being a non-selective academy and the other a grammar school and the ethos/culture within the schools, they were in a similar geographic location. They had relatively similar ethnic profiles (predominantly white British). The current approach to PE is also broadly similar.

The second recommendation would be to repeat the research study utilising the pupil's usual PE teacher to lead delivery. This may require further training for the teachers prior to any changes in activities or approaches. However, it would move us a step further towards a more typical lesson setup that would allow us to isolate the activities and the teaching approaches used better. Finally, within the school context, to broaden the study's transferability, it would be helpful to utilise other LS that are delivered similarly. Recommendations here would include activities such as skate sports, various forms of cycling, water sports (where facilities/location allow), and street dance.

Moving away from the school context, there is undoubtedly further work that could be carried out within teacher education. Working with PE teacher educators seems a prominent place to start to evaluate how they are preparing new and early career teachers to teach beyond the traditional competitive sports offer that still dominates many teacher education programmes. The work could also extend to the trainee teachers themselves to evaluate their views and preparedness to teach a more diverse curriculum and innovative pedagogies, such as MPE. The study also highlights the need for professional development in LS, providing insights into how teachers can be better equipped to deliver these types of activities. This is a key contribution to PETE, suggesting that teacher education should not only focus on

traditional sports but also incorporate new, innovative activities that align with pupils' changing needs.

As a teacher-researcher, I have modelled how teachers can engage in research to reflect on and improve their practice. This contributes to PETE by offering an example of how teachers can take a critical and reflective approach to their pedagogy, using action research to drive change in their classrooms/gymnasiums and beyond.

The research also provides a clear, actionable framework for integrating the principles of MPE into teacher education by focusing on the key pedagogical aspects aligned with SDT and the bookend pedagogies of MPE. The work here guides teachers and teacher educators on how to make learning experiences more meaningful for students, contributing to the professional growth of PE teachers.

10.5 Researcher Reflections

Engaging in this research has significantly shaped my understanding of PE curriculum reform, particularly the complexities of implementing LS in a system that is deeply entrenched in traditional sport-based models. As both a researcher and practitioner, I entered this project with the belief that LS could offer a valuable alternative to conventional PE. However, the process has deepened my appreciation for the cultural, structural, and practical barriers that make change difficult and often slow-moving.

One of the most important lessons I have learned is the necessity of patience and persistence when advocating for curriculum innovation. Change is not just about proving an idea that works in theory; it requires cultivating buy-in from key stakeholders, navigating institutional resistance, and providing teachers with the confidence and tools to adopt new practices. If I were to undertake similar research again, I would place even greater emphasis on sustained teacher development and collaboration. While the intervention demonstrated clear benefits, longer-term engagement with teachers (e.g. through ongoing mentoring or co-design/co-delivery) could have further strengthened their ability to integrate LS beyond the research period.

Additionally, I have gained a deeper appreciation for the role of systemic change in enabling meaningful reform. While individual teachers can be catalysts for innovation, structural factors such as professional development opportunities, assessment frameworks, and policy guidelines play a crucial role in shaping what is feasible in schools. Future work should

engage more proactively with policymakers and teacher training providers earlier in the process to explore ways of embedding LS principles into initial teacher education and ongoing CPD.

This research has also been a journey of growth in my identity as a researcher. Coming from a largely qualitative background, I initially approached the study with a deep commitment to exploring participant voices and lived experiences. However, aligning with my pragmatic research philosophy, I challenged myself to adopt an MM approach, stepping outside my comfort zone to incorporate quantitative data alongside qualitative insights. This decision was driven by the desire to provide a more comprehensive understanding of the impact of LS, recognising that numerical data on engagement and motivation could complement and reinforce the rich narratives emerging from focus groups, interviews and observations.

The process of integrating both qualitative and quantitative methods was not without its challenges. Learning to navigate statistical analysis, ensuring methodological coherence, and balancing the weight of different data types required a shift in my approach to research. At times, I grappled with the tensions between numerical trends and the complexity of individual experiences. However, ultimately, this challenge reinforced the value of pragmatism - using the most appropriate tools to address the research objectives rather than being constrained by rigid methodological boundaries.

Through this experience, I have developed a greater appreciation for methodological flexibility and the importance of choosing approaches that best serve the needs of the research rather than adhering to a singular paradigm. This shift has broadened my perspective as a researcher, equipping me with a more diverse methodological toolkit and reinforcing my commitment to producing research that is both theoretically rigorous and practically impactful. In future projects, I will continue to embrace methodological adaptability, ensuring that research remains responsive to the complexities of real-world educational settings.

On a personal level, this research has strengthened my commitment to bridging the gap between academia and practice, ensuring that research is not only rigorous but also meaningful and actionable for those it seeks to benefit. It has reinforced the importance of sustained efforts to support teachers in making PE more inclusive, relevant, and engaging. It has deepened my understanding of the broader systemic changes needed to facilitate meaningful curriculum reform.

10.6 - Chapter and Thesis Summary

This professional doctorate represents a significant yet grounded exploration into the potential of LS and MPE to redefine the experiences of young people in secondary school PE. It critically interrogates the current landscape of traditional PE, identifies barriers to inclusivity, and proposes evidence-based strategies to make PE more engaging and relevant to a broader spectrum of pupils.

At its heart, the study amplifies the voices of those often marginalised in PE who revealed feelings of disconnection, irrelevance, and frustration with traditional, performance-oriented approaches. By contrast, the LS interventions, underpinned by the principles of meaningful education, illuminated the transformative potential of activities like parkour and CrossFit/Kickboxing to create more inclusive, enjoyable, and personally relevant experiences. The findings suggest that novelty, autonomy, and non-competitive environments resonate deeply with pupils, fostering engagement, confidence, and a sense of belonging.

While the study does not claim to revolutionise PE on a grand scale, it offers a robust case for change. Drawing on SDT, MPE, Kotter's 8-Step Model, and practice architectures, it bridges theory and practice, providing pragmatic solutions to longstanding cultural, material, and social barriers within PE. It also highlights the power of a supportive departmental ethos and the critical need for professional development and systemic resource allocation to enable innovation in curricula.

This thesis embodies the dual contribution required of a professional doctorate: a tangible impact on practice and a meaningful addition to knowledge. It demonstrates how LS, when thoughtfully integrated with meaningful pedagogies, can reimagine PE as a space where all pupils can find joy, relevance, and connection. While the study's scope is naturally constrained by its context, its implications are potentially far-reaching. It provides educators, policymakers, and researchers with tools and insights to create a PE experience that is more inclusive, adaptable, and profoundly meaningful, ensuring no child feels left behind in a subject that should be for everyone.

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² Please note that a small number of sources are not peer reviewed. These have been used due to their high relevance but should be interpreted with caution.

Appendices

Appendix A – Presentation to Heads of Physical Education

Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Jordan Wintle – Senior Lecturer in Sport & Exercise



Presentation Outcomes

- Outline the issues surrounding current and historical practice in physical education and youth physical activity.
- Propose research aims worthy of investigation in the current climate with a view to having a positive impact on future practice.
- Outline the proposed research study including all elements of data collection, intervention design/implementation and school involvement.



Current issues – a global problem

- **Health concerns** (WHO, 2020; Ekelund et al., 2020, NHS, 2020)
- **A sense of alienation in PE/PA for many young people** (Spencer-Cavaliere, 2012)
- **Habit formation in youth key** (Stratton & Watson, 2009; Biddle et al., 2015; Engström, 2012; Ekblom-Bak et al., 2019)
- **Memories of enjoyment of youth PA and PE were the most substantial correlates of adult attitudes and intentions for PA** (Ladwig et al., 2018)



Mission impossible? reflecting upon the relationship between PE, youth sport and lifelong participation.

“Widely believed that PE is or, at the very least, can be a crucial vehicle for enhancing young people’s engagement with physically active recreation in their leisure and, in the longer run, over the life-course.

(Green, 2014, p. 357)



Enhancing meaningfulness

- Meaningful as something that holds personal significance or value to the participant.
- Those who commit to lifelong PA tend to do so for the intrinsic motivational benefits of participation (such as personal meaningfulness, challenge, satisfaction, and joy).

(Kretchmer, 2006; Beni et al., 2017)

Social interaction

Fun

Delight

Motor competence

Challenge

Personal relevance

Embrace the use of **democratic approaches** to facilitate personalisation of experience and the use of **reflective processes** to facilitate the evaluation of experiences, through a continuing process of goal setting and reflection on those goals. (Fletcher & NI Chróinin, 2021)



The case for non-traditional and lifestyle activities in physical education – increasing personal relevance

If physical education is to be relevant to youth culture and help to spur our young people into leading healthy active lives beyond school, we need to align physical education with the interests and activities that our young people want to participate in.

(Beaumont & Warburton, 2020)



Lifestyle Sports and Physical Education Teachers' Professional Development in the United Kingdom: A Qualitative Survey Analysis

(Leeder & Beaumont, 2021)

53 respondents to an online survey. Mean teaching experience of 11.4 years

Theme 1 – Lifestyle sports were poorly understood with limited use in PE

Theme 2 – Challenges around logistics, limited knowledge and school/dept culture

Theme 3 – A need for effective CPD and ITT to enable implementation

Key recommendations:

- Work collaboratively with other teachers and students to kick start change
- Seek to engage in CPD to enhance delivery of lifestyle sports
- School and departmental support are crucial to enact change
- A blend of face-to-face and online options for CPD may work best



Physical Education and Physical Activity Promotion: Lifestyle Sports as Meaningful Experiences (Wintle, 2022)



Commentary

Physical Education and Physical Activity Promotion: Lifestyle Sports as Meaningful Experiences

Jordan Wintle

School of Sport and Exercise, University of Gloucestershire, Gloucester GL2 9FD, UK; j.wintle@glos.ac.uk

Abstract: The value of embracing a physically active lifestyle has been well documented in recent times. However, despite this knowledge, physical activity levels in many western societies remain worryingly low in both adult and youth populations. Habit formation in youth is a key indicator of engagement in physical activity as an adult; therefore, maximising opportunities to develop motivation in young people is vitally important to increase the likelihood of maintaining physical activity habits as an adult. A key factor for the development of motivation is school-based physical education. This review considers the current landscape of physical education as a vehicle for physical activity promotion, and suggests that a change of approach that moves away from physical education focusing solely on sport techniques is long overdue. A culturally relevant curriculum that includes lifestyle sports, with a focus on mastery and enjoyment through a meaningful experiences approach, is proposed as a viable update to current practice.

Keywords: physical education; physical activity; motivation; lifestyle sports; youth culture; meaningful experiences

Combining culturally relevant activities with a complimentary pedagogical approach (informed by meaningful experiences), there is huge potential for PE to take a positive step forward and better serve the needs of the youth of today.



Modernising Physical Education at the University of Gloucestershire.



Jordan Wintle
Senior Lecturer, University of Gloucestershire
BBC POINTS WEST



Research Aims

Evaluate the potential impact of an intervention that implements a unit of lifestyle activities to provide meaningful physical education (MPE) experiences for young people within secondary physical education

Analyse the views of pupils as to what extent current physical education provides elements of meaningful experiences.

Evaluate the effectiveness of a lifestyle activities intervention on the creation of potential meaningful experiences for young people.

Provide recommendations on the effectiveness of lifestyle activities within physical education curricula to promote positive attitudes/intentions towards future PA.

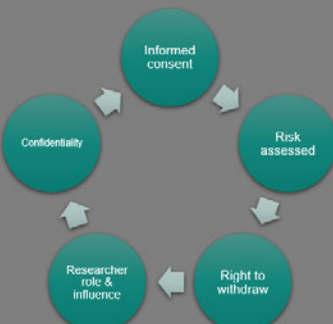


	Sampling	Data Collection	Data Analysis
Phase 1 Pupil questionnaire – pre-intervention	Purposive/convenience Year 8-10 pupils in regular PE	MPE questionnaire designed with international expert panel	Descriptive and inferential statistics thematic analysis
Phase 2a	Researcher	Reflective journal kept throughout unit	Thematic analysis (deductive)
Phase 2b	Teacher (observing)	Observation linked to MPE using provided template for each lesson	Thematic analysis (deductive)
Phase 3a Pupil Questionnaire – post intervention	Purposive/convenience Year 9-10 pupils in regular PE	MPE questionnaire designed with international expert panel	Descriptive and inferential statistics Thematic analysis
Phase 3b Pupil focus groups post intervention	Nested random from within the intervention group	Focus groups (3-4 pupils). -4-5 groups in total	Thematic analysis (deductive)
Phase 3c Teacher Interviews Post intervention	Purposive – must have observed the intervention	1-2-1 semi structured interviews ~2-4 teachers	Thematic analysis (deductive)



Ethical Approval

12,000-word research ethics application approved by the University of Gloucestershire Research Ethics Panel



- Data collection tools approved and validated.
- School, parental and participant consent.
- Activities risk assessed and researcher competence approved.
- GDPR compliant.
- School and participant anonymity & confidentiality.



Week	Outcome/Content	Indicative Content
1	Introduction to Parkour	• Overview of educational parkour linked to meaningful PE. • Safe practice briefing • Landing and jumps (distance, height, precision, landing mechanics) linked to just right challenge
2	Break Rolls	• Technical development of break rolls as an effective form of landing • Peer development of break roll technique understanding why and how – focus on social element of MPE.
3	Parkour vaults	• Pupil exploration of overcoming an obstacle using efficient movement • Overview & development of 3-4 parkour vaults. • Pupil choice MPE elements built in throughout (choice of vault, height etc)
4	Linking parkour movements using low level courses	• Student designed courses that allow development of jumping/landing, rolls and vaults. • Focus on goal setting, "just right challenge" and social elements of MPE
5	Balance and/or muscle ups	• Tic-tac movements, rail balance (stood and crouch) • Managing your own body to scale an obstacle • Focus on competence and challenge
6	Student designed courses	• Pupils to work in groups to design a course/layout that allows exploration of all elements of parkour covered so far. • Pupil choice/voice – personal relevance and fun focus of MPE.

What do I need from the school/department?

- A willing teacher to stay with the group and act as an observer and be interviewed after the intervention.
- A suitable group of pupils - 20-30 (this should fit with your typical PE groupings).
- Appropriate space and equipment for the activity (some equipment can be sourced from the university)
- One 20-minute session with pupils 2 weeks prior to the start of the unit (informed consent etc.)
- 6-8 lessons with the same pupils in each lesson
- A venue to conduct pupil focus groups at 3-4 lunchtimes after the delivery of the unit.

Appendix B – Department Web Page – Anonymised

Physical Education

The department aims to provide an enjoyable and satisfying programme, which should afford opportunities for every pupil to develop physically, socially, emotionally and cognitively. The curriculum offers a comprehensive and inclusive range of learning experiences to meet the needs of individual pupils and tries to encourage active involvement by all as performers, observers and officials.

Through a sympathetic and structured selection of learning experience appropriate to individual needs we aim to support all pupils in the development of physical competence and promote the skills necessary to effectively plan and evaluate movement related activities, safely and with confidence.

Competition, patience, tolerance a sense of fair play and good sporting behaviour are essential elements of any learning process. Through a variety of roles and with shared experiences, pupils will be encouraged to appreciate their own strengths and weaknesses and respond appropriately to the needs of individuals and groups.

It is hoped that the programmes offered across the Key Stages, together with an awareness of leisure opportunities within the community, will develop these skills and abilities required for the pupils to lead a life-long active and healthy lifestyle

KS3 Overview

Across this Key Stage pupils are introduced to key skills and concepts through modified games and play. Emphasis through years 7, 8 and 9 is the development of basic core skills, how to apply them, and a secure understanding of rules, tactics and strategies used across a wide range of activities. Units are split into half term blocks with rotations in activities every 4 or 5 weeks with 4 lessons a fortnight.

Activities studied at Key Stage 3 include:

Football, Rugby, Basketball, Netball, Fitness, Gymnastics, Dance, Badminton, Table Tennis, Athletics, Rounders, Tennis, Cricket, Softball, Rugby League, Strength and conditioning, Softball and Outdoor adventure.

KS4 Overview

Across this Key Stage the focus in lessons is lifelong learning and the ability of students to make informed choices about the activities they would like to participate in post education. Students take greater responsibility for their learning as well as developing roles as player, coach, organiser and official across all of the activities studied. Activities are studied over 5- or 6-week blocks and are a mixture of traditional competitive sports and fitness-based activities.

Activities studied at Key Stage 4 are:

Badminton, Basketball, Cricket, Health Related Exercise, Trampolining, Lacrosse, Football, Netball, Rounders, Rugby, Softball, Table Tennis, Tennis, Yoga, Sports Education and for non-GCSE students in Year 11 offer an off-site option during PE lessons which allows students to experience physical activity in the wider community and

encourage life-long participation outside of school, this options include visits to XXXX trampoline park, XXX swimming pool, XXX Golf Complex and the [named health club].

Appendix C – Informed Consent Pupils/Parents

Informed Consent Parent and Pupil

Project Title: Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Lead Researcher: Jordan Wintle [REDACTED]

Supervisors: Dr Liz Durden Myers [REDACTED]
Dr Kiara Lewis [REDACTED]

Please Circle			Parent & Child initials
Do you understand that I have asked you/your child to participate in a research study?	NO	YES	
Have you and your child read and received a copy of the attached information letter?	NO	YES	
Do you and your child understand the benefits and risks involved in this research study?	NO	YES	
Do you and your child understand that you can contact the research team at any time and the opportunity to ask questions about the study?	NO	YES	
Do you/your child understand that you/they can refuse participation, can withdraw from the study at any time, without consequence, and that your/your child's information will be withdrawn at your request?	NO	YES	
Do you understand that we will keep your data confidential?	NO	YES	
Do you understand who will have access to your data?	NO	YES	

I wish (my child) to take part in this research study: YES / NO

Printed name (parent/guardian) _____

Signature (Parent/guardian) _____ Date _____

Printed name (child) _____

Signature (child) _____ Date _____

PLEASE RETURN FULLY COMPLETED FORM TO YOUR PE TEACHER

Appendix D – School (Senior Leadership/Head of PE/Teacher) Approval & Consent

Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Project Information – School and Teachers

Dear Teacher/Head Teacher,

This information provides more details regarding a research study you/your school are able to participate in. Please take your time to read this carefully and complete the informed consent section if you are happy to be involved.

Research Title: Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Overview: This research study involves working with teachers and pupils during their physical education lessons. In conjunction with the PE department we are implementing a series of 6-8 lessons of a lifestyle activity (e.g. Parkour, Skate sports) to evaluate whether these types of activities may be beneficial to include in physical education classes. We are using a framework called meaningful PE to assess this.

Who is conducting the research?

My name is Jordan Wintle, I am a Senior Lecturer in Sport & Exercise at the University of Gloucestershire with a particular interest in physical education. I have been at the University since 2014 working in teacher education and prior to that spent 9 years working locally as a physical education teacher. This project is part of my professional doctorate programme. I have a full DBS check and vast experience of working with young people in sport and physical activity settings.

What is the purpose of the study?

Several key objectives are used to show the purpose of the study:

1. Analyse the views of pupils as to what extent current physical education provides elements of meaningful experiences.
2. Evaluate the effectiveness of a lifestyle activities intervention on the creation of potential meaningful experiences for young people.
3. Provide recommendations on the potential effectiveness of lifestyle activities integrated within physical education curricula to promote positive attitudes/intentions towards future PA.

Why have I been asked to take part?

Your schools PE department have expressed a desire to take part in the study as a potential way to develop their own practice and help inform others. Your class will be taking part in a unit of lifestyle activities delivered by the lead researcher in conjunction with the PE department. Your views on PE and the unit are valuable to us to help inform future developments in this area.

Do I have to take part?

No. There is no pressure for you to take part in the study, it is entirely your choice. After reading the information sheet, please feel free to contact the research team using the contact details provided if you have any questions. If you agree to take part, you will be asked to sign a consent form. You are free to withdraw your participation from the study at any time and will not be required to give reasons for this.

What will happen if I agree to take part?

A class within your school will be required to take part in a unit (6-8 lessons) of lifestyle activities (e.g. Parkour, Skate Sports) delivered by the lead researcher. Prior to the unit pupils will complete a short

questionnaire linked to the experiences in physical education and the same questionnaire will be completed at the end of the unit. During the delivery of the unit you (as a teacher) will be asked to observe the lessons and complete a lesson observation focussing on the experiences of the pupils during the delivery. After the unit you will take part in a short interview with the researcher to share your views on the implementation of the unit.

What are the possible benefits of participation?

It is anticipated that the information gained from the study will help physical education teachers understand the potential benefits and issues that could arise from implementing more lifestyle activities in their lessons. To date limited research has analysed these types of activities in UK secondary schools, and minimal research has connected the meaningful physical education work to UK secondary school physical education. It is anticipated the findings could be used on a wider scale to inform practice beyond just the school taking part.

What are the possible disadvantages and risks of taking part?

There is some potential for sensitive subjects to emerge through the data collection, particularly if you have issues with the delivery and content of the unit. However, sharing these and discussing them openly is an important part of the research. If a sensitive topic does arise, the researcher will supervise the data collection methods and ensure the wellbeing of participants. The researcher is able to signpost support that is available within and beyond the school. If you wish to withdraw from the research, you can do this at any time. You should just let the research team know.

Who has reviewed this study?

This study has been approved by the University of Gloucestershire Research Ethics Committee (Dr Emily Ryall, [REDACTED])

What will happen if I don't want to carry on with the research?

If you wish to withdraw from the study, please contact Jordan Wintle or your head of physical education. If you withdraw from the study, any data collected up to that point will not be retained or used. Withdrawal notification should ideally be given before a phase of the data collection takes place. This will allow us to extract data in a timely manner

Will my details be kept confidential?

Your identity will remain confidential. Your name will not be published on any material and will not be disclosed to anyone outside of the research group. You will be assigned a number which will be used on all of the information collected. Once data is collected, it will be stored in a safe place and only the researcher will have access to it. The research will comply with all GDPR regulations which can be found in the Research Privacy Notice attached.

The classroom you will participate in the interview in will be private and others in the school will not be informed of the interview.

Contact details

You can get more information or answers to your questions about the study and your participation in the study from **Jordan Wintle** - Lead Researcher (email: [REDACTED])

Supervisor details:

Dr Liz Durden-Myers

email: [REDACTED]

Dr Kiara Lewis

email: [REDACTED]

Thank you for reading. Please complete the consent form on the next page if you are happy to participate.

Yours sincerely

Jordan Wintle

Academic Course Leader MSci Sport Coaching Science

Senior Lecturer in Sport and Exercise

Senior Fellow of the Higher Education Academy

University of Gloucestershire

[REDACTED]



Informed Consent Teacher

Project Title: Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Lead Researcher: Jordan Wintle

Supervisors: Dr Liz Durden Myers

Dr Kiara Lewis

Circle	Please		Initials
Do you understand that I have asked you/your child to participate in a research study?	NO	YES	
Have you read and received a copy of the attached information letter?	NO	YES	
Do you understand the benefits and risks involved in this research study?	NO	YES	
Do you understand that you can contact the research team at any time and the opportunity to ask questions about the study?	NO	YES	
Do you understand that you can refuse participation, can withdraw from the study at any time, without consequence, and that your/your child's information will be withdrawn at your request?	NO	YES	
Do you understand that we will keep your data confidential?	NO	YES	
Do you understand who will have access to your data?	NO	YES	

I wish to take part in this research study: YES / NO

Printed name _____

Signature _____ Date _____

PLEASE RETURN FULLY COMPLETED FORM TO THE LEAD RESEARCHER

Appendix E – Research Privacy Notice

PRIVACY NOTICE

Research Participants

In order to undertake academic research and to train students in research methods, staff and students at the University of Gloucestershire collect and process various types of personal data. The University is committed to being transparent about how it collects and uses that data and to meeting its data protection obligations.

1. Identity and contact details of the Data Controller

The Data Controller (the organisation responsible for how your data is processed) is the University of Gloucestershire. The University is registered with the Information Commissioner's Office and it is committed to protecting the rights of individuals in line with Data Protection legislation.

A copy of this registration can be found [here](#).

2. Contact details of the Data Protection Officer

The Data Protection Officer is responsible for advising the University on compliance with Data Protection legislation and monitoring its performance against it. If you have any concerns regarding the way in which the University is processing your personal data, please contact the Data Protection Officer at:

Data Protection Officer
University of Gloucestershire
Registrar's Directorate
Fullwood House
The Park
Cheltenham, GL50 2RH
Email: dpo@glos.ac.uk

3. What information does the University collect?

The University collects a range of information in order to carry out its research activities. This may include personal data such as name and address, date of birth, or information on your views on specific research topics. The University may also collect special category (sensitive) personal data as defined under Data Protection legislation such as information about racial or ethnic origin, political opinions, religious or similar beliefs, health, genetic or biometric data (where used for ID purposes).

The University collects this information in a variety of ways. For example, it might be collected via surveys or questionnaires, through interviews of focus groups, or by taking photographs, audio or video recordings.

For each individual research project you will be provided with a Participant Information Sheet, which explains in more detail the kind of information that will be collected, and how this will be done.

4. What is the purpose and lawful basis of collecting my data?

Undertaking research, publishing research and training students to undertaking are tasks that are in the public interest. Universities undertake these activities so that they can fulfil their function as a Higher Education institution. Some types of research will require the collection of personal data including, where appropriate, special category personal data, in order that the aims of the research can be achieved. The University will only collect the information that is necessary to undertake each specific research project. If we are able to anonymise or pseudonymise the personal data you provide we will undertake this, and will endeavour to minimise the processing of personal data wherever possible.

Where we rely on a different lawful basis such as consent or legitimate interest we will inform you of this in the Participant Information Sheet provided to you.

There is no statutory or contractual requirement to provide your personal data to us through participating in a research project.

The University will not use your personal data for automated decision making or profiling about you as an individual.

5. How and where your data are held

All research projects involving the collection of personal data are subject to an ethics review, to ensure that appropriate arrangements are made for the secure storage of your data. If you take part in a research project, you will be provided with a Participant Information Sheet that will outline in more detail how and where your data are stored.

6. Who has access to the data?

Your data will be accessed by members of the research team (including Supervisors of student research projects), however, most personal information used in research will be de-identified wherever possible before sharing more widely or publishing the research outcomes. If it is not possible to de-identify your information, we may ask for your consent to share or otherwise make your personal information available to others. Information shared will be on a need to know basis, not excessive and with all appropriate safeguards in place to ensure the security of your information. It may sometimes be necessary to share your personal information with other researchers for the purpose of achieving the research outcomes. Where researchers wish to use any information that would identify you, specific consent will be sought from you.

If it is necessary for anyone else to have access to the data, or for the data to be shared more widely (including any transfers outside the European Economic Area), this will be made clear in the Participant Information Sheet that will be provided to you before you agree to participate in the research.

7. How does the University protect the data?

In order to protect your rights and freedoms when using your personal information for research and to process special category (sensitive) information, the University must have safeguards in place to help protect that data. The University takes the security of your personal data very seriously and it has policies, procedures, training, technical and organisational measures in place to ensure that your information is protected. All research projects or studies involving personal data that has been identified/deemed higher risk are scrutinised and approved by a research ethics panel or committee.

8. How long is my data kept?

If you take part in a research project, you will be provided with a Participant Information Sheet that will outline in more detail how long the data will be held for and, where applicable, the re-use of the data.

9. Data Subject's Rights

Under Data Protection legislation you have the following rights:

- to request access to, and copies of, the personal data that we hold about you;
- to request that we cease processing your personal data;
- to request that we do not send you any marketing communications;
- to request us to correct the personal data we hold about you if it is incorrect;
- to request that we erase your personal data;

- to request that we restrict our data processing activities (and, where our processing is based on your consent, you may withdraw that consent, without affecting the lawfulness of our processing based on consent before its withdrawal);
- to receive from us the personal data you have provided to us, in a reasonable format specified by you, to another data controller;
- to object, on grounds relating to your particular situation, to any of our particular processing activities where you feel this has a disproportionate impact on your rights and freedoms.

It is important to understand that the extent to which these rights apply to research will vary and that in some circumstances a right may be limited when the data is being used for research purposes. It should also be noted that we can only implement your rights during the period upon which we hold personal identifiable information about you. Once the information has been irreversibly de-identified or anonymised and becomes part of the research data set, it will not be possible to access your personal information.

If you would like to exercise any of these rights or have any questions regarding your rights, please contact the University's Data Protection Officer, using the contact details under Section 10 below.

10. How to raise a query, concern or complaint

If you have questions about the particular research study you are participating in, please use any contact details you have already been supplied with regarding the research study or project.

If you have general queries, concerns or wish to raise a complaint about how your personal data is used by the University, or if you wish to exercise any of your rights, you should contact the Data Protection Officer in the first instance, using the contact details under Section 2 above.

If you remain dissatisfied, then you have the right to refer the matter to the Information Commissioner's Office (ICO). The ICO can be contacted at:

Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF

Telephone: 0303 123 1113

Website: www.ico.org.uk

Appendix F – Risk Assessments & Researcher DBS Clearance

Activity Risk Assessment

Possible Hazards	Severity (without control measures)	Persons exposed (researcher, Participants, pupils, teachers etc)	Risk Control Measures Currently in place	Likelihood (with control measures)	Risk Level	Action Required
Slips, trips, falls	Medium	Researcher, pupils, teachers	All areas checked for hazards prior to each lesson including condition of flooring, equipment, weather conditions, participants clothing and footwear. Where appropriate PPE will be used – e.g. pads, helmets for skate sports.	Medium	Moderate	Monitoring and supervision of pupils whilst lessons are in progress. Adapt activities if necessary. Use of spotters to support in some activities if necessary.
Medical conditions	Medium	Researcher, pupils, teachers	Teacher and researcher made aware of any medical conditions within the group ahead of unit delivery.	Medium	Moderate	None – activities will be adaptable based on both pupil ability/confidence and any individual needs.
Injuries related to poor exercise practice (e.g. pulled muscles)	Medium	Pupils, researcher	Progressive and effective warm up in place for each lesson. Progression of activity in small increments to match pupil competence/confidence. Cool down activities within each session.	Medium	Moderate	
Equipment malfunction leading to harm	Medium	Pupils, researcher	All equipment checked prior to each session, any issues with equipment must be reported to the researcher or teacher by pupils. Equipment replaced/fixed if any issues occur. Ensure good fitting of any PPE.	Low	Moderate	Active monitoring during delivery.
Fire	High	Pupils, researcher, teacher	Follow all site guidelines for discovery of fire/fire evacuation procedures and meeting points.	Low	Low	Class teacher aware of responsibilities for guests (i.e. the researcher) on site during delivery
Transmission of infection (including covid-19)	Medium	Pupils, researcher, teacher	If unwell do not attend school. Wash hands before and after the lesson. If anyone becomes unwell during the lesson they must inform the researcher and teacher.	Low	Low	Monitor any changing guidelines for managing infectious diseases (including COVID-19) in school/physical activity settings.
Activity specific risks	Medium	Pupils, researcher, teacher	AtPE and any NGB guidelines followed once unit content has been decided with the schools.	Medium	Moderate	Any CPD needs identified before implementation of the units.

Site specific risks	Medium	Pupils, researcher, teacher	Acquire copies of any site-specific risk assessments prior to unit implementation and discuss with teacher/HoPE/headteacher if necessary.	Medium	Moderate	n/a
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Interview & Focus Groups Risk Assessment

Possible Hazards	Severity (without control measures)	Persons exposed (researcher, Participants, pupils, teachers etc)	Risk Control Measures Currently in place	Likelihood (with control measures)	Risk Level	Action Required
General (including wellbeing)	Low	Researcher Participants	Ensure adequate lighting. Ensure classroom temperature appropriate. Appropriate clothing to be worn. Sensible footwear to be worn (not sandals, high heels etc.) Each participant to have adequate workspace. Check on wellbeing of all participants ahead of interview/focus group. Be aware of school procedures for feeling unwell and first aid provision. Be aware of location of nearest staff member from the school	Low	Low	Active monitoring by the researcher during discussions
Use of electrical equipment	High	Researcher Participants	All mains powered portable electrical appliances to be in good working order and tested for electrical safety. Leads should be visually examined for damage before using. Avoid trailing leads around edges of furniture or equipment that may cause damage. Mains leads etc. not to be permitted to trail across	Low	Low	Active monitoring - check items for overheating, malfunction, etc during interviews/focus groups.

			walkways, near heated surfaces etc. Each item of electrical equipment to have its own 240-volt socket. Ensure lighting etc has been checked in line with local requirements (e.g. annual inspection)			
Manual Handling	Moderate	Participants Researcher	Where moving equipment may involve risk to participants (e.g. moving furniture), an assessment must be undertaken to establish a safe working procedure for lifting and carrying. Avoid moving objects unnecessarily. Ensure good technique/posture if moving items that are bulky/heavy.	Low	Low	n/a
Slip/Trip	Moderate	Participants Researcher	Keep all gangways clear of obstructions. Coats, bags etc. to be hung on pegs or stored out of the way of walkways. Check floors are maintained in good, clean condition, without missing tiles, rips in carpet etc. Trailing leads not permitted to cross travel areas. Materials to be stacked safely out of travel areas. Keep floors and gangways dry and free from slip hazards. Clear up any spillage's immediately.	Low	Low	n/a
Fire	High	Participants Researcher	Fire escape routes and exits to be kept clear of obstructions at all times and clearly marked with approved signs. Fire extinguishers and alarm points to be kept clear of obstruction at all times.	Low	Moderate	n/a

Pupils to be instructed in
emergency evacuation
procedure.



Appendix G – Ethical Clearance Letter



Via email

Jordan Wintle
[REDACTED]

13 January 2023

Dr Emily Ryall
Research Ethics Committee Chair
Reader in Applied Philosophy

Oxstalls Campus,
Longlevens, Gloucester, GL2 9HW

Tel: +44 (0)1242 715237

Email: [REDACTED]

Dear Jordan

Thank you for your application for ethical approval.

I am pleased to confirm ethical clearance for your research following ethical review by the University of Gloucestershire's Research Ethics Committee (REC).

Please keep a record of this letter as a confirmation of your ethical approval.

Project Title: 'Lifestyle activities in secondary physical education: an avenue to meaningful experiences?'

Start Date: 03 January 2023

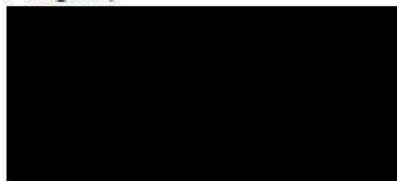
Projected Completion Date: 30 September 2024

REC Approval Code: REC.23.16.10

If you have any questions about ethical clearance please feel free to contact me. Please use your REC Approval Code in any future correspondence regarding this study.

Good luck with your research project.

Regards,



Dr Emily Ryall
Chair of Research Ethics Committee



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Appendix H – Project Information Parents/Pupils

Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Project Information – Pupils

Dear Pupil/Parent/Guardian,

This information provides more details regarding a research study you are able to participate in. Please take your time to read this carefully, discuss with your parent/guardian, and complete the informed consent section and questionnaire if you are happy to be involved.

Research Title: Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Overview: This research study involves working with you and your physical education teachers and classmates during your physical education lessons. Working with the PE department we are completing 6-8 lessons of a lifestyle activity (in your case CrossFit/kickboxing – non-contact, involving pad work only) to evaluate whether these types of activities may be beneficial to include in physical education classes/schools.

Who is conducting the research?

My name is Jordan Wintle, I work at the University of Gloucestershire with a particular interest in physical education. I have been at the University since 2014 working in teacher education and prior to that spent 9 years working locally as a physical education teacher.

What is the purpose of the study?

Several objectives are used to show the purpose of the study:

1. Analyse the views of pupils as to what extent current physical education provides elements of meaningful experiences.
2. Evaluate the effectiveness of a lifestyle activities intervention on the creation of potential meaningful experiences for young people.
3. Provide recommendations on the potential effectiveness of lifestyle activities integrated within physical education curricula to promote positive attitudes/intentions towards future PA.

Why have I been asked to take part?

Your schools PE department have expressed a desire to take part in the study as a way to develop their own practice and help inform others. Your class will be taking part in a unit of CrossFit/kickboxing (especially adapted for youth groups with non-contact pad work) delivered by the lead researcher in conjunction with the PE department. Your views on PE and the unit are valuable to us to help inform future developments in this area.

Do I have to take part?

No. There is no pressure for you to take part in the study, it is entirely your choice. You are free to withdraw from the study at any time and will not be required to give reasons for this. However, the activity will be delivered as part of your normal PE lessons and therefore you will still take part in the lessons, but no data will be collected from you if you do not want to take part. Please note that any participation/lack of participation in the study will not impact your normal assessments within PE.

What will happen if I agree to take part?

You will be asked to complete a brief questionnaire (attached at the back of this form) that evaluates your experiences of current physical education lessons. Following this you will take part in the unit delivered as part of your normal PE lessons. After the unit you will be asked to complete the questionnaire again reflecting on your experiences during the unit. If you would like to (it would be very helpful), you can take part in a focus group (discussion) with 3-5 other pupils and the lead

researcher to discuss your experiences of the unit. Focus groups will take place at school during lunchtimes in a classroom space with the lead researcher – some light refreshments will be provided.

What are the possible benefits of participation?

It is anticipated that the information gained from the study will help physical education teachers understand the potential benefits and issues that could arise from implementing more lifestyle (like CrossFit/kickboxing) activities in their lessons.

What are the possible disadvantages and risks of taking part?

There is some potential for sensitive subjects to emerge through the data collection, particularly if you have had negative experiences in physical education lessons. However, sharing these and discussing them openly is an important part of the research. If a sensitive topic does arise, the researcher will supervise the data collection methods and ensure the wellbeing of participants. The researcher has been working with young people for over 20 years and all elements of the project have been thoroughly risk assessed.

Who has reviewed this study?

This study has been approved by the University of Gloucestershire Research Ethics Committee (Dr Emily Ryall, [REDACTED])

What will happen if I don't want to carry on with the research?

If you wish to withdraw from the study, please contact Jordan Wintle or your physical education teacher. If you withdraw from the study, any data collected up to that point will not be retained or used. Withdrawal notification should ideally be given before a phase of the data collection takes place (before the initial questionnaire, before the post intervention questionnaire or before the focus groups). This will allow us to extract data in a timely manner

Will my details be kept confidential?

Your identity will remain confidential. Your name will not be published on any material and will not be disclosed to anyone outside of the research group. Once data is collected, it will be stored in a safe place and only the researcher will have access to it. The research will comply with all GDPR regulations which can be found in the Research Privacy Notice attached.

The classroom you will participate in the focus group in will be private and other students in the school will not be informed of the focus group taking place. The other participants in the focus group, as well as yourself, will be asked **not** to reveal their participation to others and will be asked **not** to discuss the contents of the focus groups with others.

Contact details

You can get more information or answers to your questions about the study and your participation in the study from **Jordan Wintle** - Lead Researcher [REDACTED]

Supervisor details:

Dr Liz Durden-Myers

email: [REDACTED]

Dr Kiara Lewis

email: [REDACTED]

Thank you for reading. Please complete the consent form on the next page and subsequent questionnaire with your parent/guardian if you are happy to participate.

Yours sincerely

Jordan Wintle

Academic Course Leader MSci Sport Coaching Science
Senior Lecturer in Sport and Exercise
Senior Fellow of the Higher Education Academy
University of Gloucestershire
[Redacted]



Appendix I – Meaningful Physical Education Questionnaire

Meaningful Physical Education

Pupil Questionnaire

Please complete all sections below reading the questions/statements carefully. If you have any questions, please ask the researcher for assistance.

Name _____

Date _____

To what extent do you agree/disagree with the statements below to describe your experiences in physical education – place a tick in the box [✓] that best fits your opinion.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I don't understand this question
Example: PE offers a broad range of activities in the curriculum		✓				
1) I have good opportunities to interact with others in my PE lessons.						
2) PE allows me to demonstrate what I am good at						
3) I regularly have fun in my PE lessons						
4) I like being competitive with others in my PE lessons						
5) I feel like I am good at some aspects of PE						
6) I enjoy interacting with others during PE lessons						
7) I can see myself getting better at activities during PE						
8) I regularly get excited about coming to PE lessons						
9) I feel safe with people around me in PE						
10) PE challenges me to try my best at activities						
11) I can make connections between what I do in PE and my life outside school						
12) I like comparing myself to others in PE lessons						

13) I feel I have some elements of choice over competition in PE (e.g. level of competition, whether to compete or not)						
14) I like to do some of the activities in PE in my own time						
15) PE is a very enjoyable subject						
16) I find most of the activities in my PE lessons achievable when I try hard.						
17) I can adapt activities in PE myself to set a good level of challenge						
18) I can see where what I learn in PE could fit into my everyday life						
19) I like being competitive with myself in PE lessons (e.g., beating a personal best)						
20) My teachers provide opportunities for me to set my own goals in PE						
21) My teachers stimulate me to reflect on my experiences in PE						
22) I feel I have some choices over aspects of my learning in PE (e.g., design of practices/games, who I work with)						
23) I feel I have some influence on how my PE experiences are designed and delivered (e.g., what the curriculum looks like, opportunities to offer feedback to teachers)						
Additional Features						
24) Are there any others features of PE that are important to you (for example health, adventure, creativity)? Please add details in the space provided, a brief explanation is also helpful.						
Overall Meaning/Impact of Physical Education						
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I don't understand this question
25) My experiences in PE are memorable for positive reasons.						
26) I see taking part in PE as something that is important, significant and worthwhile.						
27) PE makes me motivated to be physically active in my own time						

PLEASE TURN OVER FOR THE FINAL PART OF THE QUESTIONNAIRE.

Complete the two sentences below:

I like PE best when

The one thing I would like to change about PE is

Please tick the below box if you are happy to attend a focus group to discuss your experiences in PE

[]

Please check you have completed all questions and hand this back to the researcher or your teacher.

Thank you for your time.

Appendix J – Example Reflective Diary Entry

Teaching Reflection – Lifestyle Activities in PE

Pates Lesson 4 – Parkour – Climbing, scaling, hanging, swinging, traversing

What?

This lesson fell after the Easter break and so I was wary that there was a possibility that pupils may have forgotten some of the content we had covered and also aware that with this being the fourth 1-hour lesson that perhaps some of the novelty of the activity could be wearing off. To combat this, I had planned a recap/reminder activity to start the lesson and also had the hall set up during lunch with a lot of the wall bars, ropes etc out to generate some excitement amongst the pupils on entry.

Once again pupils had changed during lunch, and a few came in early keen to get to grips today's content. I had some short exchanges with pupils as they arrived, asking them about their holidays and how the return to school had been (I am aware that as a new face building relationships is important). They seemed excited about the lesson ahead and the waning enthusiasm I had anticipated from some was either very well hidden or non-existent. The lesson ran pretty much to my plan (see lesson plan), with a more teacher-led warm-up before I split the group into 4 groups and explained the rotations around the various equipment set-ups. The freedom to explore and try ideas (whilst maintaining safety) linked to the lesson focus was welcomed by the students and different equipment stations lent themselves to different elements of climbing, scaling, hanging, swinging.

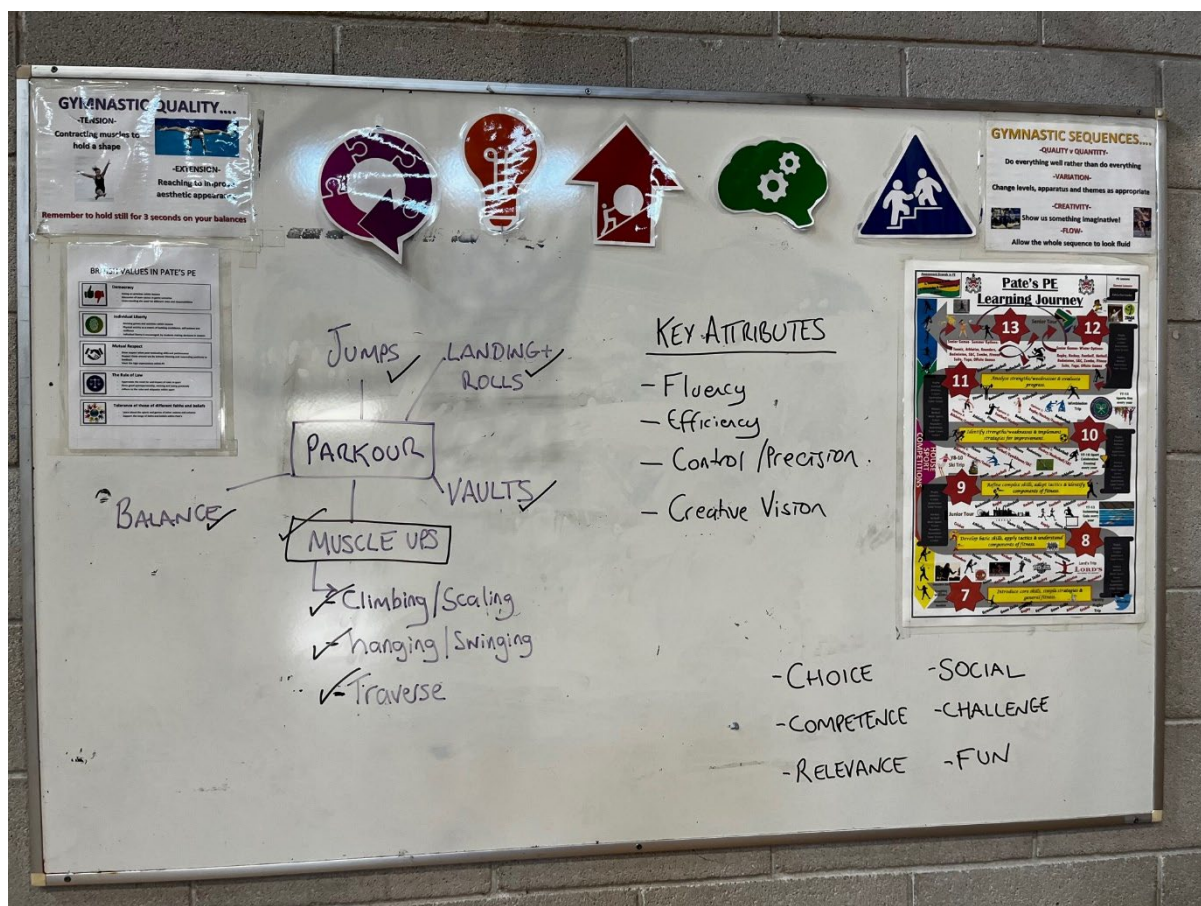
What became evident quite quickly was the buzz around the room, each group of 6 working hard on generating ideas that they could try at their set-up, exploration was key and was actively encouraging them to come up with new ways to interact with the equipment. I attempted to avoid telling pupils what to do, although did offer some technique tips/suggestions when I saw pupils struggling – typically drawn out through questioning or demo with questioning too.

After each rotation, I asked one pupil to stay behind and demonstrate/share some ideas with the next group to get them started – this seemed to work well, especially for pupils who were perhaps less creative in their thinking or lacking initial ideas. This meant that activity levels remained high and also offered a social element beyond just their working group.

After 4 rotations each group had spent time on each station, the creativity that pupils showed really surprised me and several were coming up with ideas/movements that were beyond my thinking and definitely challenging themselves. Perhaps the best example was from a girl Lizzie who managed to hand on a 4x2 inch wooden piece attached to the wall and traverse along this for about 4 metres between wall bars. Firstly, I hadn't even thought of using that piece of wood (which is used to attach the bars to the wall) and I hadn't anticipated that pupils would have the skill and strength to do this – I think the level of freedom I had offered afforded her this opportunity to challenge herself and showcase this level of skill that wouldn't have happened had I adopted a more controlling approach.

We finished the lesson with a short Q&A and reflection – this highlighted the key attributes of parkour (which were drawn from pupils via a quiz) and then a reflection on – see board photo where they (or a partner) may have demonstrated these today (linked to the MPE feature of motor competence).

To keep the excitement high for next lesson I let them know it was a final opportunity next week to put everything together that they have learnt so far and we are documenting this by creating a group “reel”/video that showcases the key skills we have looked at along the way.



So What?

I was pleasantly surprised today at how well the groups work when given the freedom and independence to explore, the engagement levels were high and I saw lots of evidence of enjoyment smiles, laughter etc. I managed to have a short chat with Jess as they were working in their groups to explore if this was “normal”. Jess commented that the pupils are generally hard-working and compliant but importantly if they weren’t interested/excited it wouldn’t happen as naturally as it did today, particularly for a few of the pupils who aren’t particularly turned on by PE. There were a few moments today when I was a bit uncomfortable with just acting in a monitoring role, watching and noticing are key skills and spotting when teacher intervention is going to be helpful vs disrupting flow is not always easy. I think there were times today when I got this right – for example when I noticed a couple of the boys struggling with a tic-tac movement (vault using the wall) I was able to intervene, question, and demo to help them with their foot placement which was initially preventing them from scaling the vault box. I had left them for a while to see if they could figure things themselves but given the relatively short time on each station a well-timed teacher intervention seemed to re-ignite their desire to scale the box. At other times, I considered myself in the role of highway patrol officer (see Ash Casey work) – intervening only when I thought safety was an issue (only a few times in the session and usually simple stuff like being aware of who is around you and not overloading equipment).

Was progress being made in this manner – yes, absolutely, I could see each pupil trying new ideas, getting more efficient in their movement, and pushing outside comfort zones (just right challenge), the level of activity and positive conversations led me to believe pupils were certainly having fun, and there was a strong social element in the small groups (pupil selected), there was lots of choice in terms of how to interact with equipment (the only constraint being safety and time). I am finding it harder to judge personal relevance just through observation and this is something I want pick up with them in the focus groups.

Now What?

I am a bit sad that next week is the last lesson with these pupils, fortunately, the longer length of the lessons and the fact pupils arrive, and leave changed, and with lunchtime to set up means we have covered a large amount of content (I would expect about 8-10 lessons worth in typical 45–50-minute lesson set-ups).

Next week, I want the pupils to set their own goals for the lesson (in line with MPE work), this gives them the freedom to work on an element of parkour that we have looked at so far that feel they would like to develop. Alongside this, the group reel activity will be used. I am hoping this ties in with both youth culture and the use of video/social media in parkour communities, I have some examples to give them a stimulus at the start.

I also want to take them back to the MPE features during this lesson to explore what features are/have been important for them in the unit. I feel like they have had good opportunities to bring all of the features to life during the unit so far and some sessions have perhaps lent themselves to some features more than others (adapting challenge and social elements perhaps being the strongest). I am however seeing the features as overlapping and relational in many lessons, it's quite difficult to see features working solely in isolation, so perhaps the balance of features is more important than just a checklist. I am not sure how to do this at the moment but will give this some thought in the next few days – needs to be meaningful but not overly time-consuming.

Post-intervention questionnaires to share at the end and Jess is working on sorting out times and venues for pupil focus groups – I want these to be relatively quick after the unit ends so pupils have ideas fresh in their minds.

Appendix K – Lesson Observation Proforma/Example

Lesson Observation Template

Lesson Number	4
Activity	CrossFit/Kickboxing
Learning Objectives	4
Observations linked to features and pedagogies of meaningful PE (include notes on impact on pupils)	
Democratic pedagogies	Small group and paired work using peer coaches to give feedback on technique and performance. Options provided at each station to make exercises harder/easier (pupil choice). When some of the girls were uncomfortable with bear crawls (uniform) Jordan was able to provide other options of exercise to replace this that they could choose if they wanted. Sharing the rationale behind each exercise during the demos helped pupils see the value in each station.
Goal Setting	Pupils had a goal of working for the full duration of the exercises and could set themselves a personal goal of using the harder versions of some/all exercises. Jordan spoke about balancing intensity and duration so pupils could manipulate these to create their own goals.
Reflection	Think-pair-share activity to recap knowledge elements from the first few lessons (as today was bringing this all together) - allowed them to reflect on their progress to date.
Social Interaction	The paired work using the roles of performer and coach worked well and created the opportunity for lots of social interaction. Pupils were able to choose their partners, and this had a positive impact on the dynamics of each pair. There is lots of evidence of coaches providing feedback and motivation.
Challenge	Pupils could manipulate the level of challenge by choosing the normal/easy/hard version of exercises even though the duration was set for them. There was also a cognitive challenge in the coaching role for them to know what correct technique looked like and also provide helpful feedback.
Motor Competence	Whilst general competence varies across the group, all pupils had the opportunity to access the lesson at their own level and I could see all pupils making progress (either in their intensity levels or improved technique).
Fun/Enjoyment	Enjoyment was evident throughout the lesson, largely due to the paired work and the "fun" nature of the activity itself, the pupils seem to prefer the kickboxing stations to the fitness-based ones. Developing new skills seems to help with the enjoyment factor.
Competition	Some competitiveness in some pairs over the number of repetitions of exercises (through their own choice) but mostly competing against themselves to improve/get better at the activities.
Personally relevant learning	Discussed how pupils could create a mini circuit such as this for themselves in a home environment, also discussed the importance of good technique and finding the right level of challenge to help maintain/improve fitness.
Additional comments	no new content today which was useful as it allowed pupils more time on task and an opportunity to consolidate their learning from the first half of the unit.

Appendix L – Pupil Focus Group Guide

Pupil Focus Group Structure

Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Introduction and welcome	• Led by the moderator – welcome all participants introduce objectives of the focus group and ground rules for participation: ○ Speak openly and honestly ○ There is no right answer ○ Respect the views of others ○ One speaker at a time • Participants to briefly introduce themselves and share broad views of being physically active (likes, dislikes)
Attitudes, engagement and motivation in physical education generally (pre-intervention)	• Broad opinions on PE • What do they like most about PE? (linked to features of MPE in probing questions) • Best experiences in PE to date? Why? • Who or what influences their enjoyment/engagement? Teaching approaches, activities etc.
Assessment of physical education during the lifestyle activities intervention	• Show video summary of unit to stimulate thinking/remind • MPE Features and Pedagogies (goal setting, reflection, democratic approaches) • Meaningful – meaningless – negative scale – where did the intervention sit and why? ○ Social ○ choice ○ Motor Competence ○ Challenge ○ Competition (or lack of) ○ Personal Relevance- cool? Youth culture? ○ Fun/Enjoyment • 3 key words to describe your experience – why? • 30 sec quote to a reporter on your experience?
Best and worst parts of the intervention?	• Allow exploration and sharing of ideas • Probe for examples/depth where needed • What would you say to other pupils who might be interested to hear about the unit or possibly try it in the future?
Improving PE intervention experiences	• What could be done to improve your experiences in the PE intervention in an ideal world – no limitations! • What could be done to improve your PE experiences that could be implemented immediately?
Intervention impact on attitudes or intentions to engage in PA	• Did the intervention impact your attitudes or behaviours in relation to PA habits outside of PE? • Has it made you more confident to try other new activities? What might these be? • If so, how?

Questions/elaboration/A OB	• Opportunity for the group to ask questions or elaborate on any ideas they feel necessary. • Allow group to add anything new they feel is important to the study focus
Summary and close	• Thank all participants for taking part. • Check on welfare of all participants – signpost support options (school based and beyond). • Ensure all participants are collected or exit safely.

Appendix M – Teacher Interview Guide

Teacher Interview Structure

Lifestyle activities in secondary physical education: an avenue to meaningful experiences?

Introduction and welcome	• Led by the researcher – welcome participant and introduce objectives of the interview and ground rules for participation: ○ Speak openly and honestly ○ There is no right answer • Participant to briefly introduce themselves and some details about their journey into teaching and career to date.
Success in PE	• Garner ideas around what a successful PE experiences leads to for pupils • What are the important components of this? • What beliefs underpin your teaching practice?
Challenges in PE	• What are the biggest barriers or challenges you face in your role as a PE teacher? • How do you work to overcome these? • Examples?
Experience or opinions surrounding lifestyle activities in PE. Linked to observations in the intervention	• Awareness/experience of these • Potential of these activities? • Who might they appeal to? • Issues in implementation? Why did they occur? How could we overcome this? • What were the good bits you saw in the intervention? Why did they work?
Assessment of physical education during the lifestyle activities intervention linked to features of MPE	• MPE Features and Pedagogies (goal setting, reflection, democratic approaches) ○ Social ○ Motor Competence ○ Challenge ○ Fun/Enjoyment ○ Competition (or lack of) ○ Personal Relevance ○ Choice
Best and worst parts of the intervention?	• Allow exploration and sharing of ideas • Probe for examples/depth where needed
Improving PE intervention experiences	• What could be done to improve pupil experiences in the PE intervention in an ideal world – no limitations! • What could be done to improve pupil PE experiences that could be implemented immediately?
Intervention impact on attitudes or intentions to incorporate lifestyle activities in future PE?	• Did the intervention impact your attitudes or behaviours in relation to the use of lifestyle activities in PE? • If so, how? • What might need to happen to see these activities feature more in PE?

	• How was the role of observer effective CPD for you?
Questions/elaboration/AOB	• Opportunity for the participant to ask questions or elaborate on any ideas they feel necessary. • Allow participant to add anything new they feel is important to the study focus
Summary and close	• Thank the participant for taking part. • Check on the welfare of participants – signpost support options (school-based and beyond).